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WORLD BANK GROWTH REPORT—ASSESSMENT AND EXTENSION

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No economy can flourish in the midst of macroeconomic instability. Wild fluctuations in the price level, the exchange rate, the interest rate, or the tax burden serve as a major deterrent to private investment, the proximate driver of growth. **Spence 2008a, Pg 69.**

ABSTRACT

While significant advances in human wellbeing have been achieved over the past century, great numbers of the extremely poor around the world are in continuing danger of falling in absolute terms—a condition that places the entire human community at growing risk. However, recent advances in mathematical behavior/psychology (producing a new paradigm) coupled with cessation of great-power aggression due to fearsome nuclear arsenals makes possible our ascent to the high plateau of general wellbeing, justice, and security. …We may now conclude with conviction and confidence that market instability—the natural tendency of free and open markets to increasingly divide us into rich versus poor—is sufficient in itself to explain inequality and poverty. This conclusion emerged, first, from the deepening of utility theory (and, accordingly, neoclassical economics) to its neuropsychological foundation (completed 1993), followed ten years later by a mathematical development that identified uneven expected risk across the population, due to uneven discretionary power, as a cause of growing poverty (published on the internet in 2004). The discovery immediately recommended national and international policies for economic stability and development (published in the same paper). …In the present article the primary emphasis is on the recent World Bank sponsored Growth Report, which acknowledges the growing international departure from the Washington Consensus and provides recommended adjustments. The prescriptions of the Growth Report are welcomed, but permanently institutionalized (1) damping of rapid shifts of international finance/commerce along with (2) recapitalization of the poor, both now analytically promoted and increasingly applied around the world, are overlooked. These government measures for preserving and developing human capital are necessary for market-economy stability and (long term) growth, while the private sector retains primary responsibility for growing business/industrial capital. As a further consideration, the complementary Discretionary-Power Principle of Justice for negotiating and accepting human recapitalization (i.e., increasing education, skills, health, etc.) around the globe is recalled and discussed. Additionally, the discussion offered by Professor Sang-Ho Lee of Chonnam National University at the WEAI Conference in Vancouver is provided in the appendix, with responses to his comments.

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INTRODUCTION

Centuries ago a scholar of the human condition wrote that universal peace and well-being are forever beyond our reach. Well, to again recall an old phrase—that was then, this is now: We have looked into the nuclear abyss and recognized our shared imperative for discipline and cooperation. And we have also quite recently completed a 100+ year effort deepening mainstream neoclassical economics to a new paradigm, one that defines the basis for our discipline and cooperation.[1] With these historic developments we have entered a new age allowing all to reach the high plateau of justice, security, and well-being.

The emergence of our new age is happening before our eyes: Here we've known for over half a century that nuclear weapons threaten us all, but it wasn't until about twenty years ago that this condition finally defeated or retired the military option (between major powers) in favor of diplomacy (albeit with some military posturing) in resolving international disagreements; And now new policy and institutional prescriptions analytically identified and suggested just six years ago (see 2003/4) to help reverse poverty and inequality are significantly revising the received 20th century orthodoxy.

The new prescriptions have their foundation in a deeper, empirically-based formulation of economic knowledge—where such knowledge is of course necessary to first change our direction with conviction and confidence, and then maintain the new direction against challenges certain to come. This deeper understanding originated in the solitary or isolated (i.e., unsupported) work of Hermann Gossen in the mid-nineteenth century. His book (1854), and the profound significance of his contribution, was not discovered until after Jevons, Walras, and Menger published their work in the so-called Marginal Revolution in the early 1870s—too late to prevent an essential and fateful error in our modeling of human (economic) behavior, an error remaining in academia, business, and governance to the present day.

The error was to identify human satisfaction (called "utility" in economics) <u>directly</u> with consumables in <u>basic</u> theory. More to the point, the direct-identification of utility with consumables (in basic theory) is epistemologically incorrect. In particular, the direct-identification of utility with consumables, versus the (correct) direct identification of utility with *human activity* (mental and physical, where utility is imputed to consumables based on the individual's expectational plan), denies or rejects our centuries-old conception of the need to anchor or secure knowledge and understanding at the empirical foundation. Furthermore, because the more fundamental *instant utility* ("feeling state" Dolan

[1] Near the conclusion of the WEAI session in Vancouver a discussant suggested that deeper support of the paper's reasoning and recommendations should be provided. It appears best, however, that readers who want to review the mathematical details may download the 2003/4 and 2003c papers, which together give the foundation for the follow-on studies and recommendations. All of the papers after 2004 accordingly refer back to the formative 2003 contributions.

(2002)[2]) was correctly identified with human activity in the production of consumables, a profound (conceptual and mathematical) inconsistency or incoherence exists at the foundation of economics, an incoherence that would be refused in mathematical physics and engineering. Instead of utility, economic science must take *feeling state* as the essential parameter for all human activity (productive, consumptive, and leisure) in both real-time experience and the formulation and modeling of the individual's expectational plan.

Does it matter in this regard, or is it of any importance—in seeking to improve our lives, including national security—that our understanding of market function and behavior in domestic and international economies is fundamentally incorrect? Well, we know from experience on the natural-science side that the presence or absence of insights into how things work can have significant consequences for safety and wellbeing. It would be remarkable indeed were this not true in the social sciences—for essential errors as well as essential discoveries.

In the following paragraphs we first review the history of mathematical economics—specifically, mainstream neoclassical economics and the 140-year diversion or side-track of Gossen's contribution—and then turn to the Growth Report, in its relationship to the Washington Consensus and also relative to quite recent advances in our understanding of developmental economics. Suggestions are offered to revise and extend the Report recommendations to better serve the security and wellbeing of our national and international communities.

A CENTURY OF CONSTRAINED PROGRESS

It can be beneficial or helpful in seeking progress in any scientific department to study our experience in other scientific departments. Here the rise of the human sciences (primarily psychology and economics [applied psychology][3]) over the past few centuries is similar to the rise of the natural sciences (primarily physics) over the past several millennia. As an example, our understanding of Earth's place in the cosmos experienced a transition from the conception of the ancient Greeks through the Renaissance.

[2] Instant utility (feeling state) is the time-derivative of utility—and, conversely, utility is the time-integral of instant utility. Because instant utility is a stand-alone parameter it is according more essential than utility. Moreover, instant utility is directly measurable at an instant in time. The parameter is therefore more scientifically fundamental than utility. …Nevertheless, it is not incorrect to use "utility" in mathematical formulation and discussion, provided its secondary level is understood.

[3] Psychology is a science—but is economics applied psychology? It is clear in this regard that economics has a profoundly psychological dimension, inasmuch as expectation is psychological (where expectation is integral with economic planning, and accordingly affects market behavior). Then, in the same sense that fluid dynamics is applied physics (in the goal, for example, of designing aircraft), and meteorology is applied physics (in the goal of predicting the weather), so economics is applied psychology in the goals of understanding, predicting, and stabilizing economic activity.

Aristarchus, in this regard, was alone in advocating the sun-centered model of the planetary system. But his concept was ultimately confirmed over two centuries of research by Copernicus, Brahae, Kepler, Galileo, and Newton.

Fateful Error.

> *Given that the only certain fact is the intensity of pleasure felt at an instant of time, the only epistemologically sound approach is to take intensity as the primary concept.* Introduction to the English translation of Hermann Gossen's book on economic behavioral theory ([1854] 1983, lxxxi).

In human affairs, it does indeed sometimes appear that history is prologue. Hermann Gossen, who was, as noted above, a solitary mid-nineteenth century scholar in the ascent of science, correctly and coherently identified utility (human satisfaction)—or, as has also been noted, the more fundamental instant utility ("feeling state")—with *human activity* in the production and consumption of things (1854). His contribution, when discovered and studied in the late 1870s, was not fully credited and followed, and the essentially flawed neoclassical economics paradigm emerged to be retained to the present day. And now, after many decades of effort by numerous researchers, the discipline is returning to the proper, essentially consistent, human-activity based formulation of economic function and behavior (i.e., approaching consumption in the same way that production and leisure are approached).

The intent, during the so-called Marginal Revolution of the late nineteenth century, was to recognize and formulate the role of psychology in economics. In so doing, the early nineteenth century Classical Economics paradigm, which explained prices as the adding-up or summation of labor value contributions exclusive of psychology, became the Neoclassical Economics paradigm that we've preserved and developed over the past 120+ years. However, because the principals of this revolution (Walras, Menger, and Jevons) did not pay close attention to mathematical coherence and completeness in formulating basic (utility) theory, a crucial error at the very foundation was introduced.

In their attempts to bring psychology into economics, Leon Walras was the most progressive of the original neoclassical marginalists. His ambition was to produce a mathematical formulation of the entire economic system in equilibrium, and he needed a concept of utility that was suitable for the task. Walras could not, after considerable effort, arrive at the correct approach, and he turned to others for guidance. The "solution" was provided by a professor of mechanics (Paul Piccard at the University of Lausanne), who was not a scholar in the human (social) sciences (see Jaffe, pages 130-31). He recommended, in effect, that utility (again, human satisfaction) be directly (and simplistically) identified with commodity-amounts—where total utility (represented as actually in the commodity) increased as the commodity-amount increased, but at a slowing or decreasing rate at the margin. This recommendation was readily and naturally accommodated in what became Walras' algebraic formulation of General Equilibrium. And so the economics community started down a mistaken path, with a growing number of economists (despite strong doubts and criticisms of some colleagues) developing the conceptual and mathematical framework or idea-system based on this incorrect foundation.

(Incorrect) Ordinal Utility Versus (Correct) Cardinal Utility.

> *But to see with my own eyes, and to hold in my hands, a great book, which had cost its author years of meditation and study and which had almost fallen into eternal oblivion—for this I was not prepared.* Excerpt of Walras' tribute to Gossen—from "Walras on Gossen" [1885] 1952.

Just prior to the publication of his work on marginal economics starting in 1874, Walras was understandably disappointed when Jevons wrote to him in late 1873 advising that the discoveries had been presented in his own book in 1871. The two men then properly and responsibly began an exhaustive search to discover writers who had preceded them. They initially found none and documented their conclusion in an article published in December 1878. However, after article acceptance and just before its publication, surprise once again intervened when Jevons became aware of Gossen's book, in September 1878. Walras received his own copy for review four months later in January 1879. He agreed with Jevons that Gossen had formulated the principles in his 1854 book. The discovery and its assessment were documented in his (Walras') 1885 tribute to Gossen (see the quotation above).

Neither Jevons nor Walras appear to have explicitly acknowledged Gossen's more essential treatment in the years immediately following the 1878 discovery. However, Jevons did recognize Gossen's fundamental theory as "more general and thorough" in subsequent editions of his 1871 book, and Walras accepted Jevon's conclusion in his 1885 article. But in post-1878 editions, Jevons retained commodity-utility (rather than feeling-state utility) in intertemporal balancing subject to uncertainty (pgs 69-73). And Walras did not formally withdraw or revise his commodity-utility based General Equilibrium formulation, despite recognizing in 1896 that "the rarities are the intensities of the last satisfied pleasures." (See also fn 4.)

And so the journal record of two of the principals of the Marginal Revolution in economics became confused—at the most basic or essential level. Adding to the confusion was a memorial-tribute to Jevons in 1882 by his university successors, a tribute that overlooked Gossen's earlier contributions. …Given the simple (in fact, simplistic) character of additive, commodity-based utility, the stage was set for an unfortunate misdirection—unfortunate, that is, to the extent that correct or proper or true understanding of anything, economics included, may be of value in human progress.

The confusion surrounding Gossen's earlier conception of psychological economics was resolved by overlooking or ignoring his mathematically difficult paradigm (i.e., difficult in application, as is not unusual in mathematical science) in favor of the simple and relatively undemanding utility theory that prevails to the present day. Alfred Marshall, a prominent economist who was a contemporary of the marginalists, quickly adopted the new methodology—although being himself a critic of mathematical economics, he tended to relegate or devalue mathematical formulations to footnotes. Other economists over the following decades wanted to develop economics as a rigorous science, as physics had been developed as a rigorous science. And just as physicists had worked out logical consequences of the great revolutions of relativity and quantum theory, so economists concluded, as a logical consequence of (again) simplistic additive utility theory, that utility (satisfaction) had to be ordinal (immeasurable) rather than cardinal (measurable). (See Hicks 1939 and Hausman 1992)

Warnings Unheeded. This false ordinal-utility conclusion then became the formal basis of mainstream university and governmental economics (General Equilibrium Theory, as a particular), and even acquired the lofty *axiomatic* status—notwithstanding continuing warnings over the decades.

Certainly not the first warning was that by Rutledge Vining, when he criticized the Cowles Commission's "Walrasian conception" as

> "*…a pretty skinny fellow of untested capacity on which to load the burden of a general theory accounting for the events in space and time,"*

where

> *"Economic research is still at the 'Kepler stage' of seeking hypotheses and is not yet ready for the 'Newton stage' of testing and applications"*…. (Vining 1949, by Rima 1971 p. 501.)

Seventeen years later, Wassily Leontief (Nobel Prize 1973) argued that

> *"…the old eighteenth-century problem of choice under conditions of uncertainty" led to the conclusion that "…a cardinal comparison of utilities [in the mind of a consumer] must obviously be accepted as operationally feasible."* (Leontief 1966, p. 26)

And, as quoted earlier, the prominent economist Nicholas Georgescu-Roegen criticized and condemned the mistaken direct-identification of utility with consumables in his introduction to the English translation of Gossen's book (1983).[4]

But neoclassical economics prevailed, despite being substantively false and sterile due to the essentially incorrect utility theory at its core. …As may be expected along our difficult path, the absence of valid and true understanding to guide our policies and institutions can yield tragedy. And here,

[4] Immediately following his conclusion Georgescu-Roegen noted that Walras in 1896 recanted or denied his own psychological/utility theory, an admission that could have returned researchers to the correct Gossenian approach.

seemingly by default due to the absence of correct understanding, ultimately harmful market fundamentalism moved onto the stage in the late twentieth century. While increasingly challenged, this flawed ideology has remained prominent around the world up to today's financial/economic crisis.

ORTHODOXY REVISED

(Discretionary-Power Principle of Justice)[5]

There is no injustice in the greater benefits earned by the few provided that the benefits and discretionary power of persons not so fortunate are improved. (2003/4)

The dominant orthodoxy of our world today, in its idealized or fundamentalist extreme, has promoted the substantial disengagement of government from proactive responsibility for the socioeconomic stability and wellbeing of the citizenry that it serves. In this extreme our discourse or discussion proceeds in terms of "government is the problem" or "tax reduction is the solution" or "the individual is sovereign," with minimalist "you're on your own" government as the objective.

If we are to understand what "orthodoxy revised" it may be helpful to begin with *The Discretionary-Power Principle of Justice*. In this principle "discretionary-power" is the crucial concept—or, more to the point, uneven discretionary-power, due to uneven wealth and income across our nations around the world, is the crucial concept: Because the poor have lower discretionary-power in their (free/open market) competition with the rich, the risk of investing (in themselves, their families, and their communities) must be higher. Accordingly, the poor reasonably and rationally limit or constrain investment at risk—with the very poor falling in absolute terms as reduced new investment fails to preserve or protect (already desperately low) capital intensity against further loss (due to wear/depletion, loss of knowledge/skills, etc.). This is, of course, a most serious market-failure, a failure that places great communities—and thereby everyone—at growing risk.

The Discretionary-Power Principle of Justice has the capacity or capability to change the world. Here the Principle has two effects or consequences: (1) We are forever released from the impossible task of achieving the state or condition of (absolute) social/economic equality in order to achieve social/economic justice (a release that helps to close the great schism or divide between socialism and capitalism); and (2) We are informed that social/economic justice is comprised, instead, of the process of continually and perpetually achieving or moving toward or gaining social/economic equality (this, it may be noted here, being a new basis for negotiated settlement of disagreement or controversy concerning government action to arrest and reverse poverty). …Each individual may continue to work toward the

[5] This principle is an extension of John Rawls' original maxim or principle: "…there is no injustice in the greater benefits earned by the few provided that the situation of persons not so fortunate is thereby improved." (1971, p. 15)

better life for self and family, while accepting/supporting fair and just improvement of the health, education, and productive-capability (all contributing to capital intensity) of all citizens.[6]

Individualism Moderated. The Discretionary-Power Principle of Justice does not negate or reverse our long-cherished ideal of the self-reliant and self-supporting individual who faces, and deals with, the opportunities and adversities encountered in life. It is certainly quite important in this regard that the individual, in his or her strength and fitness, take primary responsibility for self and family—for two reasons: (1) The vitality and success of the community (at all levels) depends on individual responsibility; and (2) As one facet or dimension of human nature, the individual has a competitive tendency and can be (psychologically/emotionally) rewarded or satisfied by competitive activity (and also rewarded/satisfied, of course, by cooperative activity). But individualism, as an unconditional norm or rule, can no longer stand.

Why individualism, as a kind of (ideological) absolute in the relationship between government and the citizenry it serves, must, and will, be revised or relaxed has its basis in our modern and deeper understanding of economic behavior. Here, as noted above, we have been warned for decades that mainstream, neoclassical economics is unsound at its foundation. But now this conclusion is well established (see 2003/4 and 2003c) and we have in hand the result and benefit of almost two centuries of investigative learning into psychological economics, an effort producing the complete and coherent Gossen equation[7] of human/economic behavior (the equation was completed in 1993). From this starting point, uneven expected risk in self-investment—derived of, or resulting from, uneven discretionary power across our markets of competing rich versus poor—has been identified as a cause of poverty and inequality. And as we've learned in many instances over the centuries in technology and engineering, discovering the cause of a failure in some system or function frequently leads to the remedy or cure or correction.

We now know that individualism, when promoted as the operative ideal in government's relationship to the citizens and communities that it serves, ignores the greatest of market failures: Individualism ignores the tendency for wealth and income to become increasingly uneven—due, again, to uneven discretionary power between rich and poor in their competitive free-market interactions. And

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[6] As has been noted, the second policy recommendation for stability and growth—international transfer damping—also promotes the capital-intensity of the poor. Here the (permanent) institution of a system of constraints or impedances on cross-border transfers serves to overturn the archaic (eighteenth century) notion/orthodoxy of free and open borders as the ideal.

[7] The canonical Gossen Equation takes the form (See Chamberlain 2003c):

$$\underline{E^i \;\equiv}\; \sum_{w=1,\infty} \left[f^i_w \int_0^\infty \lambda^i_w(.,.,\ldots,t)\, P^i_w(.,.,\ldots,t)\, dt \right]$$

with the constraints $\Phi^{ic}_w = 0$ with $c(w) = 1, \infty$.

since this discretionary disadvantage of the poor increases as the rich pull ahead in our substantially free-wheeling markets, the poorest of the poor must ultimately fall in absolute terms in the absence of support.

John Rawls, in his "Theory of Justice," observed that governing our affairs in such manner as to undermine and (eventually) collapse the socio-economic condition that we deliver or leave for those who follow is unjust—or, from another perspective, it is on the side of justice and fairness to put in place and preserve the institutions and policies that will yield a stable/sustainable world. Whatever else we may do we must arrest and reverse the growth of poverty. And this means that individualism, as another form of harmful extremism, must be tempered or adjusted or moderated as part of proper governance for the sustainable world that we seek. …Government that has been disengaged from proactive responsibility for the wellbeing of its citizenry now becomes government engaged for stability and wellbeing—an historic revision of orthodoxy.

DEVELOPMENTAL ECONOMICS IN OUR NEW AGE

> *In recent decades governments were advised to "stabilize, privatize and liberalize." There is merit in what lies behind this injunction—governments should not try to do too much, replacing markets or closing the economy off from the rest of the world. <u>But we believe this prescription defines the role of government too narrowly</u>. Just because governments are sometimes clumsy and sometimes errant, does not mean they should be written out of the script. On the contrary, as the economy grows and develops, <u>active, pragmatic governments have crucial roles to play</u>.* Growth Report, Pg 21… (Emphasis added.)

One of the central themes of the Report is trial and error, that "…the correct response [of government] to uncertainty is not paralysis but experiment," and "If they suffer a misstep, they should try something else, not plunge ahead or retreat to the shore." Moreover, the Report does not ideologically reject a wide array of governmental involvement or participation—including exchange controls, capital-surge restraints, "Protecting people in transitions," and public finance—all, however, subject to their deliberately or intentionally transitory character, with eventual return to capitalist orthodoxy:

> "*Growth is the result of market forces and private sector investment operating in an environment created by effective government.*" Michael Spence PowerPoint presentation, 2008,

where maintenance and further development of both material and human capital (education, skills, health, etc.) is primarily or substantially left to the private sector. More to the point, the private sector is responsible for human capital (i.e., beyond the education of children and adolescents) because, in the free market ideal, government withdraws from maintaining and developing the human capital of the citizenry it serves.[8] And so the Growth Report endorses neoclassical free-market capitalism, with adjustments, within the ideology or paradigm, to move us closer to the good society.

A New Direction. In the present article we acknowledge the "diagnostic" recommendations of the Report, recommendations that serve to adjust, and bring flexibility to the "presumptive" neoliberal prescriptions of the Washington Consensus.[9] But we go further by focusing on economic stability (coupled with its relationship to growth), and how the Report's treatment may be extended toward structurally or institutionally reversing the free-market condition of increasingly uneven wealth/income.[10,11] …And although this extension—which is based on a revision of the dominant neoclassical paradigm at its [utility theory] foundation—does not negate the capitalist market, the extension does revise orthodoxy by denying individualistic "you're on your own" government in favor of (appropriate and limited) proactive government for stability and wellbeing, thereby yielding a new developmental-economics paradigm. The neoclassical orthodoxy quoted above accordingly becomes:

> "*Stability and growth are the result of market forces coupled with private sector investment and governmental human-capital promotion operating in an environment created and appropriately regulated by effective government.*"[12]

In following this new direction, each nation proceeds in accordance with its own socioeconomic, political, cultural, etc., state or condition, while engaging with, and benefiting from, the wider global context.

The recommended development model could be considered within the capitalist paradigm, without socialist aspects or dimensions. This may be puzzling to the reader, inasmuch as overarching government action is advised, action that can produce a significant and continued reduction of poverty. But the operative reason for this action is not to reduce poverty but to stabilize the market economy—that

[8] The individual citizen of course bears responsibility for self-improvement. But it is the responsibility of government to counteract the tendency of markets toward uneven income and growing poverty.
[9] Quoted terms from Rodrik's review (2008) of the Growth Report.
[10] Increasing inequality in the United States during the rise of market fundamentalism (in the form of neoliberalism and The Washington Consensus, beginning around 1980) is well documented—see Frank, 2009.
[11] This most serious mode of economic instability and market failure is admitted or acknowledged in the Report. In this regard, even within the Chicago School—the leading exponent or champion of free market capitalism—it has been long recognized that the free-market economy yields inequality (See Rima 1991, p. 536-539). However, it was considered "...unwise…to invest too strongly in policies aimed at ensuring economic equality and a just income distribution." But it is now established that the (unending) process of converging on equality constitutes justice, rather than an absolute state or condition of equality. This principle recommends that advocates of free market capitalism reassess their fundamentalist beliefs, and determine that it is now proper for government to promote human-capital development and international-transfer damping for stability and growth.
[12] This does not deny that industrial corporations sometimes pay employees to increase their capital intensity. But government has the ultimate or final responsibility for social and economic stability by steadily promoting/ increasing the capital intensity of the poor.

is, to defeat the economic dysfunction and decline that must ultimately result from poverty that grows in terms of both intensity and numbers. …Welfare promotion, to the extent that a nation may wish to aid the disadvantaged, is a separate matter or concern.

Damped International Transfers and Recapitalized Labor.[13] It is well-known and understood in physics and engineering that mechanical assemblies can be subject to "… *[undamped] input [that] may excite oscillations with such a large amplitude that the system may be destroyed*." (Kreyszig 1967, p. 138) This *practical resonance* is a form of instability, one where the systemic condition self-reinforces or self-amplifies in a feedback that grows over time. …It would be remarkable indeed if the economy—this largest and most complicated system in the "business of life"—were not subject to a similar effect. But of course it is: There is a natural tendency under free-market capitalism for uneven wealth and income to amplify and become more uneven over time, this being a serious condition that naturally fosters or promotes economic and political instability.

In this regard, as has been noted, it is not just that the divide between rich and poor increases in the market economy. If the concern were this simple the argument could be made (and has been made, for decades) that at least the wellbeing of the poor is improving. The more serious concern is that wellbeing of the (over one billion) poorest of the poor must fall in absolute terms—as their discretionary power, and willingness to invest, diminishes in market competition with the ascending, more-powerful rich. This is an unjust condition that not only places a growing burden on our national and international communities, but necessarily renders futile the idea or notion or belief that we can achieve permanent solutions of the other great challenges (i.e., environmental protection, nuclear proliferation, disease control, etc.).

Action is appropriate to defeat economic instability—where the action must be smoothly accommodated and readily instituted by governments around the world, so as to avoid or minimize the short-term dislocation and harm that can attend significant change. Two actions or measures that satisfy this requirement have been available for over five years (see 2003/4 and subsequent articles): (1) Damp cross-border (i.e., international) transfers of commercial entities (capital, goods, etc.) in order to reduce investment risk thereby improving investment confidence; and (2) Recapitalize the citizenry (most prominently, the poor and extremely poor) by way of conditional cash transfers that improve education, skills, health, etc., and the ability to perform and compete in the market.[14]

[13] "Recapitalization," in the present context, refers to actions by government that increase the capital-intensity of the poor (health, education, skills, business knowledge, etc.) through conditional cash transfers, but also through investment-promoting damping of international commercial/financial transfers.

[14] Both measures have been employed over the years. The latter, human recapitalization, continues to be successfully applied in Latin America (e.g., Brazil and Mexico) and is increasingly promoted worldwide (e.g., New York City, London, Egypt, and Afghanistan). And now both measures have an analytic or theoretical validation that supports permanent application (see 2003/4).

The two measures can be legislatively and/or institutionally connected. It is expected, in this regard, that damping of cross-border transfers could be accomplished by levies or duties that are ramped/increased in accordance with the magnitude of departures (of cross-border transfers) from the normal, time-averaged conditions (as, for example, was applied by Argentina in early 2008 in response to the extraordinarily increased demand for soybeans in the international market)[15]. In this approach, the departures, or imbalances (from time-averaged magnitudes), would gradually diminish, and the levels of the applied measures (in percentage terms) would correspondingly decrease—in compliance with legislated regulations (which could be internationally monitored and coordinated/influenced through the WTO, or a similar agency). The resulting income would help support the recapitalization programs.

Some of us might conclude that the new governance measures undermine free-enterprise. But the first measure only damps or moderates the contributions of international shocks to "*Wild fluctuations in the price level, the exchange rate, [and] the interest rate … [that] serve as a major deterrent to private investment*".[16] And the second measure comprises a fundamental systemic adjustment or compensation in the human-capital sector of the market that serves to correct a dangerous and fateful instability—"[a] *natural tendency of income inequality to rise*"—while leaving intact free-enterprise in the private (small business and industrial) sector. Neither measure undermines the market, but—to the contrary—each serves to strengthen and stabilize the market. …The objective is government engagement to advance human productivity without negating proper market function—where a prime benefit is preservation and development of labor capital for use by the private free-enterprise business sector.

CONCLUSION

Our time is a great and unprecedented turning point in human history, one that is potentially revolutionary everywhere. This positive assessment is based on two very recent developments: (1) The now generally recognized and accepted permanent nuclear détente between major powers; and (2) the recently completed deeper and fundamentally-correct understanding of economic behavior. …Because of the essential character of these developments there will be no reversal, no going back to the ruinous strategic competitions and conflicts of centuries past.

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[15] Argentina's plan was to allocate part of the resulting tariff receipts to building and staffing hospitals in poor neighborhoods. The variable tariffs to fund such projects was first protested by farming interests through widespread roadblocks, and then defeated in the legislature.

[16] The damping measures, when set at a higher level, could be used to help preserve critical industrial sectors—food production as an example. Highly-valued cultural attributes may be similarly preserved.

And now, during this pivotal transition, a profound financial/economic crisis has occurred, one that has its origin in the unsound neoclassical economics paradigm and the fundamentalist, unregulated free/open markets that the paradigm fostered and permitted.

The Growth Report contributes to our "new age" transition—away from increasingly rejected neoliberalism and the Washington Consensus toward a sound and workable alternative. But while recognizing the great, overarching affliction and danger—again, "[a] *natural tendency of income inequality to rise*"—the Report retains free-market capitalism, except for <u>temporary</u> measures to mitigate or damp sudden shifts in macroeconomic parameters. And the Report recommends that inequality be limited, inasmuch as people "*…will accept [inequality] up to a point*."

It is questionable, however, whether l*imiting inequality*, is satisfactory to people generally. But more to the analytic level: Is it in fact feasible to simply place a floor under those who (as a consequence of "limiting inequality") would endlessly experience marginal well-being of self and family? After all, if there is a natural tendency for diminishing investment-returns of the disadvantaged in market competition with the rich—and this must now be accepted—then significant and continuing recapitalization must be provided to the very many of us who decide (reasonably and rationally) to curtail or hold-back investment in self, family, and community. …To seek only to limit inequality is neither fair nor feasible. Instead it is appropriate to establish policies and institutions that arrest and reverse the natural tendency toward inequality: It is necessary that government help people to improve and raise themselves, rather than maintain a minimalist and individualistic "you're on your own" philosophy.

Now is the time for the world to change direction—now, despite the peril and challenge of our present economic/financial crisis—rather than delay or postpone for a better day. After all, redirecting resources to the poor builds the (human) capital base in preparation for eventual normalization of the economy. And because, in this regard, recapitalizing the poor brings a new resource to societal productivity and growth, one can conclude that funding the threatening and advancing retirement and medical burdens (in the US and elsewhere) is importantly improved. …This historic redirection can help turn the world toward economic recovery and stability, while bringing economic justice everywhere thereby advancing security and peace around the globe.

APPENDIX. Professor Sang-Ho Lee's Discussion—With the Author's Clarifications and Responses (As Underlined Entries)

Comments on Dr. Chamberlain's

WORLD BANK GROWTH REPORT – ASSESSMENT AND EXTENSION

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The paper consists of two parts, an appraisal of ordinal utility theory and a principle of justice, which integrate the basic foundation on economic thought. Basically, the article does not suggest a methodology or application to overcome the current economic problems, but it gives a philosophical assessment on the future direction of economic analysis along with a study of poverty—its cause or basis and suggested governmental measures to reverse poverty over time (originally presented in 2003).

As the paper is organized, I will provide two different comments based on two different topics, even though it will be unified in the concluding paragraph.

> (Professor Lee's comment on behavior economics (immediately below) is addressed, followed by responses to his observations regarding the Discretionary-Power Principle of Justice.)

1. Gossen's (1854) ordinary utility or instant utility: Basically, Gossen's approach is more appealing than the standard (Walrasian "direct-identification") approach since it is based on the feeling state and sentiments of human beings, which is the direct expression of well-being or happiness. Then, the first question is—how can we apply the concept of ordinary (cardinal) utility (or its time-derivative, instant utility) to analyze the behavior of human beings? Even though behavior economics has developed in recent years, this progress is neither adequately mature nor sufficiently applicable to deal with the whole economic situation. That is, we need more than one or two centuries to develop the appropriate methodology to understand unobservable utility. It means we should go step by step to find the right direction of economic analysis.

> Here we may observe that behavioral or psychological economics (as researched and developed by the prominent associations SABE and IAREP) cannot substantively explain economic behavior (e.g., growth of poverty) or recommend policy and institutional measures to defeat and reverse poverty—regardless of how much time is applied or invested. (Some scholars have assigned the term "descriptive" to the neoclassical sub-discipline.) In this understanding, behavior economics (as presently pursued or developed) is much like empirical and theoretical research on the equations of state (thermal and caloric) of fluid mechanics. But without the remaining governing equations of fluid mechanics—which require the conservation of mass, momentum, and energy, thereby yielding a determinant set—the equations of state are sharply limited in their explanatory and predictive capacity (for example, the equations of state cannot explain aircraft lift and drag). Behavioral economics must be similarly deficient, in the absence of an overarching formulation of valid and essential principles and constraints. (As noted above, behavior economics cannot explain poverty—and cannot therefore recommend steps or measures to defeat this great affliction.)
>
> As a further note, in my work I have mathematically formulated the overarching "principles and constraints" with applications to various questions, including the cause of poverty and a resulting or derived proposal of corrective measures. In this research I have only secondarily accommodated the behavioral characteristic of individuals, where such

characteristics would serve to refine, and not significantly alter or revise, most of the analyses and conclusions.

2. The idea of a "discretionary-power principle of justice" proposes the proactive role of government for arresting and reversing inequality and poverty to help promote socioeconomic stability and economic growth. In terms of promoting stability and growth, I agree with this pragmatic action of government with the emphasis on equality and justice for human beings. However, it is necessary to allocate or divide responsibility between individualism and the ultimate final responsibility of government. In this regard, I agree that the basic nature of human beings is to respond to competition and incentive. But the main problem is how to segment and divide the separate roles between the individual and government in practice. In particular, how do we proceed when the issue is highly correlated in a dynamic sense?

Therefore, understanding organization, including the market system and the role that inherent incentive/motivation can play, should be the starting point to pursue the future direction of economic analysis—based on human activity (mental and physical) feeling state rather than commodity-based utility. This approach will handle the current economic problems eventually.

First, with regard to "how to segment and divide the separate roles between the individual and government in practice," we proceed subject to fiscal discipline. In this regard, as a secondary but important concern we may wish to speed the ascent of the desperately poor—that is, additionally redistribute or transfer resources (conditionally or unconditionally, as appropriate) even though the Discretionary-Power Principle is satisfied. However we must preserve and grow the economic system. And so we will appropriately balance expenditures against income, and do so with the aid of an increasingly insightful and valid economic science.

But there is the deeper level that Professor Lee indicates in his critique: How do we preserve and foster individual responsibility while government provides conditional-cash-transfers to the poor? Here it may be observed that individualism is more prominent in western culture than in other cultures around the world. That is, the balance between cooperation versus competition—between individuals and within groups—varies from culture to culture. And so, each nation will—subject to its political, demographic, etc. condition—tend to formulate its own approach, policies, and institutions.

Beyond theses considerations, there could be guidelines or criteria or standards for defining the relationship between government and the individual, with regard specifically to preserving individual responsibility for self and family in the competitive market system. These rules may be defined over time. In any case, our unending collective responsibility is to help the disadvantaged raise (recapitalize) themselves—not because we are humanitarians, but because we want to stabilize and preserve the economic system.

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