Life Beyond Growth

Alternatives and Complements to GDP-Measured Growth as a Framing Concept for Social Progress

2012 Annual Survey Report of the Institute for Studies in Happiness, Economy, and Society — ISHES (Tokyo, Japan)

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Dedication

This report is dedicated to the memory of Donella H."Dana" Meadows (1941-2001), lead author of *The Limits to Growth* and a pioneering thinker in the area of sustainable development and ecological economics. Dana, throughout her life, managed not only to communicate a different way of thinking about economic growth and well-being, but also to demonstrate how to live a happy and satisfying life as well.

Preface

"Life Beyond Growth" began as a report commissioned by the Institute for Studies in Happiness, Economy, and Society (ISHES), based in Tokyo, Japan. The initial assignment came at a time (early 2011) when Japan was wrestling with serious economic challenges, including a decade of stagnant economic growth, an aging demographic, rising unemployment, and an industrial base increasingly dependent on the overconsumption of imported resources. These unsustainable economic trends created a compelling basis for a shift in emphasis from traditional industrial growth-based planning toward a new vision of social progress based in personal and social happiness and well-being. From the standpoint of early 2011, it seemed possible that Japan, among other countries, was on the brink of "switching" from being a growth-centered society, to being a well-being-centered society.

The first draft of this report was completed in time for the launch of ISHES, held in Tokyo on 4 March, 2010. (Attendees included a number of government and industry representatives, including an official responsible for developing Japan's economic growth strategy.) The purpose of the report, at that time, was to provide a quick survey of the state of the field for the new Institute, as an input to its strategic planning and programming.

I was honored to provide a keynote presentation for the ISHES launch event, and an initial summary of findings formed the core of my opening presentation for that event, under the title "37 Questions about Happiness, Economy, and Society ... and One Statement." The "statement" was a quotation by John Maynard Keynes, from his essay on *Economic Possibilities for our Grandchildren* (1930), about the coming economy of leisure.[1] The emphasis on questions — 37 of them! — underscored that the important issues being explored by ISHES were very much open-ended, under examination, and far from resolved.

One week later, on 11 March 2011, the depth and breadth of those unresolved questions expanded enormously. In the series of events known in Japan as the Tõhoku earthquake and tsunami, or more colloquially as "3-11", Japan suffered its worst natural disaster in modern history, compounded by the world's worst nuclear disaster since Chernobyl. As of early 2012, Japan was still recovering from the combined effects of the earthquake, tsunami, and destruction of three nuclear reactors, which claimed approximately 20,000 lives. the full social and economic impact of these events will not fully be known for many years. There is no doubt that the events of 3-11 have already transformed Japanese society. To a significant degree, they have changed the rest of the world as well, especially as concerns the future of nuclear power.

The enormity of these events, combined with the devastating losses suffered by the Japanese people in terms of lives, livelihoods, and national economic prospects, obviously had a profound impact on the writing of this report. While the facts have not changed regarding what is happening globally in the area of new approaches to economic growth and its alternatives, the context around those facts shifted dramatically during 2011 — and not only in Japan. The year 2011 will be recorded in history as a year of momentous changes in many parts of the world, from the upheavals in the Arab countries, to the droughts and famines of Africa, to financial turmoil in both the Eurozone and the Dollarzone.

These changes in the world both delayed and caused significant changes in the approach of this report, as well as reconsiderations about its purpose and central message. In a world where people are suffering the terrible effects of disaster, compounded by painful declines in economic security and/or the loss of their economic livelihoods, it would be difficult, if not ethically inappropriate, to argue against economic growth in a categorical way. In recovering from earthquake,

or avoiding famine, or placing a state's finances on a stable platform, economic growth – of a specific kind – is seen as an absolute necessity.

But what kind of "growth" is necessary?

This question provides a bridge to the original purpose of this report: to survey the current "state of the art" regarding the possibilities for Japan – or any country – to create an *economy of well-being* rather than an economy based on unending economic growth. On a finite planet, where all life (including human life) is dependent on finely tuned ecosystems, unending *physical growth* is categorically impossible. However, the quest for human *development, happiness, and well-being* presents limitless possibilities.

Happiness and well-being, after a century of being excluded from serious consideration by the mainstream of economics, have emerged in recent years as serious topics of economic debate and policy innovation in diverse countries and across the spectrum of ideological opinion. It is hoped that this report will help to accelerate further change in this regard.

In light of the events of 2011, of course, accelerating a sustainable social and economic recovery, in Japan and elsewhere, is now also part of the aim of this compendium of ideas and policy alternatives.

The information in these pages has been gleaned from around the world, and the ideas reported on here are the result of decades of thinking and experimentation, by many people in many cultures. While the experiments are still in progress, it is already possible to see a new framework for economic goal-setting emerging, one that has the potential to reconcile the need for economic growth (where it is truly needed), the desire for human happiness and well-being, and the boundaries of what the planet can sustain. As such, the vision offered at the conclusion of "Life Beyond Growth" offers the possibility that we might find, together, a realistic path forward to a sustainable future, not just for Japan, but for the world as a whole.

Structure of the Report

"Life Beyond Growth" is intended to be an annual publication that will update decision makers and members of the general public on the status of the current debate, as well as policy shifts, related to the issue of economic growth, happiness, and well-being.

For this first edition, however, we provide a more detailed historical background. The report begins with an overview of the rise of the "growth paradigm" in modern industrial times, as well as the more recent rise of challenges to that paradigm. We gather all of these challenges, new frameworks, and alternatives to the dominant growth paradigm under the overall heading of "New Economics."

Following that historical review, the report provides, in guidebook format, a current summary of the specific frameworks, concepts, and methodologies – one is tempted to call them "brands" – under which New Economic thinking is most prominently promoted. It also describes the indicators (measuring systems) that help to make those frameworks tangible as well as policy-relevant. In some cases, the framework and the indicator are essentially identical – that is, the new indicator defines a new economic framework, and vice versa.

The final chapters provide a more speculative look ahead, including thoughts about how geopolitical factors are likely to influence the development of these ideas in the near term, and how the disparate streams of alternatives to traditional economic growth are likely to sort themselves out into a more coherent river of ideas for change. The last chapter also includes a reflection on the ethics of growth and happiness, and a proposal for an integrative framework that marries the recent trends in "Green Economic" thinking with the rise of "National Happiness" indicators worldwide. This marriage of concepts has the potential to provide the world with a clear vision of what must be achieved in the coming decades, as well as some sense of how to get there.

The world's choices about how it pursues economic well-being are, at bottom, ethical choices. Indeed, one of these choices has to do with *how we view choice itself*: Are we encoded by our biology to always want growth, thus rendering "New Economics" a kind of evolutionary sideshow? Or can we choose how we relate to the essential business of "making a living" on this small planet, which we share with so many other living things?

Is there "Life Beyond Growth"? In the end, this question cannot be answered, definitively, except perhaps by trial and error. This report is offered in the hope that our attempts to find the answers will lead to a satisfying life for all, on a vital and diverse planet, and that we can avoid as many errors as possible along the way.

Acknowledgements

While I serve as lead author, this report would not have been possible without the excellent work of two excellent writers/researchers recruited for this project, Hal Kane of San Francisco, and Catherine Kesy of Luxembourg. Diana Wright of Vermont also provided invaluable editorial input.

Together we pored over the contemporary literature on the limits to growth, the limitations of economic measurements, current alternatives to "growth" as a proxy for overall social progress, and the emerging art and science (for it is very much supported by science) of happiness economics, among other topics. We adopted the "less is more" approach to the report itself: our goal was to provide an easy-to-read, engaging introduction to these topics, and a portal into further reading and web surfing into this rich and diverse family of concepts, frameworks, and measurements.

To Junko Edahiro and ISHES, we express our thanks for this wonderful assignment. We offer our apologies for any lacks, flaws in design, or errors it may contain. And we hold out our highest hopes for the success and impact of Institute for Studies in Happiness, Economy, and Society.

And finally, to the people of Japan, we extend our great hopes fortcontinued recovery from the terrible events of March 2011, and for a brighter, more sustainable, and happier future.

- Alan AtKisson
Stockholm, Sweden
31 January 2012

A Note on Sources and References

This report draws on a wide variety of scholarly books and articles, policy documents, news reports, organizational websites, and online encyclopedias, as well as many hours of participation in conferences and seminars on topics related to economic growth and its alternatives. Often an observation or reflection noted herein is actually a synthesis, drawing on several such sources. In the age of the Internet, it makes little sense to catalog each and every source when most facts can more efficiently be checked (using multiple sources) by a quick web search. Moreover, since I have been working in this field for over two decades, it is sometimes difficult to identify, or even remember, the exact relevant source for a reflection that is the product of years of observation.

Instead, I have opted to focus our cataloguing of references on those sources that are very specific, that are current "key sources" in this field, and/or that would not otherwise be easy to identify or to find. For example, we do not list references to explain the origin of the word "Anthropocene" in the opening paragraph of the first chapter, for while this term may not familiar to all readers, it is easy to find key references via the Internet. On the other hand, when the report is drawing on specialist publications, very recent news articles, presentations at recent conferences, or personal communications with experts, we have endeavored diligently to catalogue these sources.

A.A.

Introduction

Can humanity as a whole be happy and satisfied without destroying the natural systems on which we depend? This question began to haunt the minds of researchers towards the end of the 20th century. Now, in the 21st century, it has become the most urgent question of our age.

Scientists increasingly refer to this period of time as the "Anthropocene," by which they mean the time in Earth's long history that is primarily defined by the human presence on the Earth, and its impact on climatic, biological, and even geological systems. Our numbers have swelled from one billion in the year 1800 to six billion in the year 1999, and are expected to reach nine billion by 2050. Our agriculture, energy plants, cities, cars, airplanes, dams, fishing fleets, and many other technologies — combined with our enormous numbers — have changed the face of the planet. Our effect on Earth's ecosystems is equivalent in scale to the coming of an ice age, or the impact of a large asteroid, and it is expected now that we will leave our imprint in the fossil record for eons to come. No matter how it all turns out for us in this and coming generations, geologists millions of years in the future (if there are geologists then) will be able to see our fingerprints on this period of history, etched into the layers of rock.

The question is, what will they see? A complete catastrophe, marked by an enormous die-off of species, the exhaustion of resources, and pollution so widespread and toxic that even human numbers dwindle rapidly? Or will they see a "near-miss," a moment of danger, where global-scale catastrophe is contained just in time, and recovery and restoration begin in earnest — turning Earth's future from "human wasteland" to "planetary garden"?

The answer to these question hinges on the answer to one more question: Will humanity manage to transform its economies, to convert them from destructive forces to sustainable and indeed restorative processes, in time?

Notice the word "economies": while we often refer to a single "global economy," the truth of the matter is that human civilization is comprised of a complex network of many different economic systems. Some of them are still free-standing, essentially subsistence economies, where people farm or hunt and live off what is around them, with relatively little interaction with global-scale processes. But even indigenous tribes living deep in the Amazon are increasingly tied into the world's larger network of economic transactions, clustered (at least for reporting purposes) into nation states, and woven tightly together by trade, technology, and currency exchange. Still, as we begin this exploration of emerging alternatives to "economic growth" as we know it, it is important to bear in mind that "the global economy" is not a monolith. The process of using resources, creating value, and meeting human needs and aspirations looks very different from one place to another. Japan's economy is very different from that of China, the United States, Brazil or Bhutan.

One thing that all of the world's larger economic systems have in common is an absolute dependence on growth. We will explore the concept of growth in a more nuanced way later, but for now, we can simply acknowledge that the economic success of essentially every country in the world is measured by how quickly that country's consumption of resources, production of goods and services, and resulting money flow is expanding. Fast growth is better than slow growth; no growth is bad; and "negative growth" (also known as "recession," or shrinkage) is considered seriously catastrophic if it continues for more than a few months.

But if growth, in national economic terms, is always the goal, and if more growth is better than less growth, what does the future hold in store? It is

very difficult to deny that we live on a planet of limited size and capacity. The Earth once seemed boundless to us; now, we jet from one side to the other in half a day. Researchers debate how many decades (not how many centuries) of oil are left to fuel the jets. Supplies of metals, fish, even fresh water are running low. And most worryingly, the waste and garbage from our activities continue to build up, sometimes in disturbingly visible ways (such as the enormous gyre of plastic waste in the middle of the Pacific Ocean), and sometimes in ways that are all the more dangerous for being invisible (such as the buildup of greenhouse gases in our delicately balanced atmosphere).

Under such conditions, to believe that growth as usual can continue indefinitely is not just ridiculous; it is delusory. Economies do get more efficient over time, and innovation does provide substitutes for some resources when they run out or get expensively scarce. But at some point, there is nothing left to substitute, no more efficiencies to capture, and too few resources to meet the needs. If growth has not stopped well before that point, and if our economies have not changed and matured into systems that do not require continuous physical expansion in consumption and production of finite materials and non-renewable energy, then a collapse is inevitable.

To achieve a sustainable, collapse-free future, it is not sufficient to talk about changing "the global economy"; we must change many different economies, all around the globe. For this reason, it is encouraging to see how many alternatives to the growth paradigm have emerged around the world in recent years. This diversity runs counter to the myth that only growth is good, much less that growth can continue forever. Countries like Bhutan talk consistently about "Gross National Happiness" (a phrase that has echoed around the world) and even measure happiness in sophisticated ways, while researchers in Austria — to pick just one example — have recently measured the "subjective well-being," "quality of life," and "time-prosperity" of that country's population.[2] Phrases like "Genuine Progress," "Sustainable Society," and even "De-Growth" appear more and more often in serious discussions of policy.

The change in the level of mainstream acceptance around these terms has come with astonishing speed. Prior to the year 2010, the idea that a concept like "happiness" would start competing with "growth" as a principal goal of national economic policy would have been laughable. It certainly remains controversial. But it is no longer marginal. A growing number of senior political, business, and institutional leaders have now acknowledged that economic growth, as we currently define it and measure it, is not the only important measure of human welfare. Pronouncements on this topic by people such as the UK Prime Minister David Cameron, French president Nicholas Sarkozy, and the leadership of China's Communist Party have all generated global headlines in the last year alone. And in early 2012, the UN's High-Level Panel on Global Sustainability — chaired by Presidents Zuma of South Africa and Halonen of Finland — noted the need for "The international community [to] measure development beyond gross domestic product (GDP) and develop a new sustainable development index or set of indicators."

To understand where this sudden, contemporary surge in alternatives to growth is coming from, it is important to understand something about how growth became such a dominant paradigm in the first place. This report summarizes some of the key factors that have supported the dominance of "growth" in global history, while also providing a briefing on some of the contemporary political factors and technical initiatives that have led to this moment of sea change in public thinking on growth, happiness, and human well-being.

"Life Beyond Growth" also provides summary information on specific alternative indicators and policy initiatives — some of them many years in development — that have recently become more visible. Whether or not these alternatives will spread more broadly and take root more deeply is difficult to predict; probably most of them will not. In this respect, the report provides a "snapshot" of a

global intellectual and political movement, one that is gathering steam, but being expressed in different ways in different parts of the world. It is difficult to summarize this movement in a conclusive way, because it is so diverse and changing so rapidly, almost from week to week. "Life Beyond Growth 2013" is likely to present a very different picture of this complex present reality.

In the end, regardless of which ideas and frameworks win out, we must find our way to a future where everyone, in every country, has the opportunity to experience quality of life, happiness, and well-being while living within the boundaries of what our planet can physically sustain. This is the central motivation behind this annual report on "Life Beyond Growth."

The Rise of a Movement

Why did the interest among governments and public thought-leaders in these previously marginal questions about growth and happiness arise in the first place?

There appear to be at least three principal reasons: one is political in nature, one is more scientific and empirical in its origins, and the third is ethical.

Politically, the leaders who have recently spoken out in favor of new measures of happiness have done so in the context of reduced expectations for traditional economic growth, as measured by the Gross Domestic Product (GDP). Prime Minister David Cameron of the UK, President Nicolas Sarkozy of France, and the Chinese Communist Party have in common that they preside over countries whose economies — for differing reasons — cannot provide previously promised and expected levels of growth in GDP terms. As the Secretary-General of the OECD, Angel Gurría, said in a very recent speech on this topic, "growth 'as usual' is not an option."[3] Measures of happiness and well-being provide these leaders with a viable alternative for demonstrating their success as leaders in providing for the welfare of their citizens.

These political calculations also have a basis, however, in emerging empirical analyses of the economic, social, and ecological realities of the 21st Century. Leaders of all kinds increasingly understand the complex challenges we face as a world, in areas ranging from global climate change, to environmental decline, to local conflicts over increasingly scarce resources. Faced with an ever-growing mountain of relevant scientific facts and trends, many leaders are realizing that "Growth as Usual" — a term we will adopt throughout this report — is no longer viable as a long-term, overarching societal objective. Their interest in finding alternatives has been matched by an upsurge in robust, scientifically based approaches to defining and measuring alternatives that previously seemed too vague or too difficult.

And finally, growth — as an over-arching paradigm and ultimate social goal — has been the subject of continuous critique by ethically-minded thinkers for decades. Their championing of other values, such as equity, altruism, and a less materialistic way of life, has always found adherents at the margins of modern industrial societies. Now, it appears, their philosophical arguments have found common cause with the political needs of national leaders, as well as the empirical and analytical tools of contemporary research. In the rise of democracy-based protest movements now emerging around the world, they may also have found a new, popular voice.

But What is "Growth"?

"Growth" is, of course, a word with many possible interpretations. In the political and economic context of our time, and especially in the common language of political speeches and newspaper articles, the word "growth" is a blend of at least four different concepts:

1. The expansion of humanity's physical presence on the Earth (the size of our cities, farms, and industrial areas);

2. Increased production and consumption of

goods and services (the output of our factories and offices);

3. Increased monetized activity in our economies (the flow of currency between buyers and sellers); and

4. General technical and industrial progress (the increased sophistication of our technologies and their increased diffusion and adoption).

We will offer more precise definitions later, but even in the common, conflated, and somewhat confusing sense of the word as described above, people are increasingly realizing that that Planet Earth cannot sustain endless "growth" — at least, as we have been practicing it up to now.

The search for alternatives to Growth as Usual has led quickly to concepts of human happiness and well-being. Philosophically, the world appears to be on the verge of a collective "aha!" moment about the meaning of economic activity, perhaps even a collective realization about the meaning of life itself: that the purpose of all our striving is not to increase the *quantity of stuff and money in our lives*, but to improve our *quality of life*.

The most compelling and publicly visible evidence of this "collective aha" can be found in the recent actions and public pronouncements by the leadership of the three diverse nations noted earlier, China, the United Kingdom, and France. All three nations have moved seriously, and very publicly, to begin measuring the happiness and well-being of people, and they claim that they will reduce the dominance of economic growth goals in policy making. They are not the only nations doing so; but their actions have been particularly noteworthy for the amount of media attention they have received.

From Bhutan to Britain

The policies of these countries have been influenced, indirectly if not formally, by the pioneering work of the tiny mountain kingdom of Bhutan, whose notion of "Gross National Happiness" has long generated interest and headlines around the world. Bhutan's efforts to measure human happiness and well-being as the principal scorecard for national success have also inspired or influenced similar headline-making initiatives at all levels, from towns and cities in the United States (such as Seattle), to state-level governments in India (such as Assam), to international collaborations like the Organization for Economic Co-operation and Development, better known as the OECD.

These top-down, governmental policy initiatives are mirrored by a growing number of bottom-up grassroots and intellectual movements, including the "happiness movement," the "downshifting movement" (reflecting people who choose to work and earn less in exchange for more time and higher quality of life), and the "de-growth" movement (a largely academic discussion on how to restructure national economies in ways that are not dependent on growth).[4]

However, this is not to say that the world is on the verge of turning its back on economic growth, or embracing a future of "simple living" and consumption reduction. Far from it: traditional economic growth remains essential to the achievement of the United Nations' Millennium Development Goals; it continues to frame the national policies of nearly all nations; and even the "pioneer" nations mentioned above (including Bhutan) are also resolute in their efforts to maintain steadily increasing Gross Domestic Products.

What is different about this moment is not its revolutionary nature, but its evolutionary character. After thousands of years of steadily increasing growth, topped by an extraordinary "growth spurt" as a species in recent history, it seems possible that the human species is realizing that it will soon be "all grown up," at least in physical terms. Like any human teenager, our physical growth as a species must soon come to a stop, to be replaced by a focus on the long-term development of our knowledge, skill, and wisdom.

In part, the purpose of this report is to tell the story of how the world arrived at this moment. In

part, it provides a summation of the current "state of the art" when it comes to rethinking economic growth in favor of other goals and other scorecards. And in part, it attempts to provide some insights and guidance for those who are interested in helping this transition from an old worldview to another, broader, and more sustainable worldview to continue, and to accelerate.

The Historical Foundations of Economic Growth

Economic Growth: The Paradigm of the Past

"Growth" is a physical phenomenon, not an abstract concept. For centuries, growth has also been a fundamental, defining element of human civilization. The first meaning of "to grow" is "to become larger." Humanity's physical presence on planet Earth — how many of us there are, the resources we use, the kinds and quantities of things we create, the changes we make to the natural systems around us, the waste we produce — has been getting larger and larger, in every measurable way, since the first modern humans stepped out of Africa and began to spread themselves across the surface of planet Earth. Humans do many interesting things, but if viewed from somewhere out in space, over a long period of time, here is the first thing an observer would notice about us: we are growing.

In the past century or two, the speed of our growth has accelerated; since 1950, it has accelerated dramatically. The benefits to humans of this accelerated growth cannot be denied: in general, by expanding our numbers and our capacities, human beings are living longer lives, filled with more amazing and fulfilling opportunities, than anyone could have imagined just a century ago.

But today, the impact of both the *speed* and the *scale* of human growth — that is, the process of our presence on the Earth getting much bigger, much faster — is significantly disrupting the rest of life on this planet. Our growth has replaced vast areas of enormously complex natural ecosystems with the much simpler systems (in ecological and biological terms) of agriculture, industry, and urban living. Even the chemical balances of vast bio-geophysical systems — the atmosphere, the oceans, forests, soils — have been disrupted. The results of these replacements and disruptions are now keeping an expanding corps of researchers very busy trying to understand what is happening. An expanding global class of professional environment and sustainability policy-makers, planners, and managers is struggling to change those systems that appear to be causing the biggest problems.

And this is just the environmental or physical side of growth. On the social side, the world is currently witnessing what happens when rapidly growing populations expecting rapidly growing opportunities begin to rebel against political and economic systems that are not delivering those opportunities. The Arab world's current transformation was partly triggered by problems such as rising food prices, water scarcity, and a lack of jobs for educated young people — all byproducts of extremely rapid growth, especially in population. The final result of the Arab world's transformation is impossible to predict; but the world will certainly never be the same.

So the question of whether growth is *happening* is not in dispute. The question of whether growth is always *good* — whether growth should continue to be the unquestioned, fundamental goal of human economies and societies — is another matter. Questions like "What should *keep* growing? What should stop growing? And what should *shrink*?" have become some of the most important questions of our age, posed by Nobel Prize-winning economists, heads of state, and increasing numbers of ordinary people.

Most importantly, *can* growth continue? Have we begun to reach the "limits to growth" — ecological and social — that we were warned about decades ago? And if so, how can we re-organize our

economies so that they can produce happiness, well-being, and expanding opportunities for all, without having to "gnaw this planet to the bone"?

Growth, Economic Growth, and Monetized Economic Growth

At this point, it becomes important to introduce a few important definitions and distinctions.

Growth is physical growth, as described above.

Economic growth is a related concept, but it is not the same thing as simple "growth". Paul Romer, an economist at Stanford University, defines it this way: "Economic growth occurs whenever people take resources and rearrange them in ways that are more valuable." He makes the analogy to cooking: raw ingredients go into the kitchen. Labor, knowledge, energy and technology are applied. Beautiful meals come out. The beautiful meal is far more valuable than the raw ingredients, thus creating an increase in value: economic growth.[5]

But how do we measure *value*? In the modern world, we measure it with money. The beautiful meal is worth whatever someone is willing to pay for it. This way of measuring value creates some difficulties in measurement. If the beautiful meal is prepared by your mother, it may have great value to you. But that value will not be recorded in the economic statistics of the nation, because you will probably not pay money to your mother. Theoretically, her act of cooking and serving you a delicious meal will contribute to the economic growth of your nation; but because it is not paid for, and because no monetary transaction is reported to any official agency, the meal will remain economically invisible.

Imagine, however, that your mother presents you with a bill for the meal. You pay the bill in cash. She records the income, and duly reports this transaction to the authorities (e.g., as part of her tax declaration). Then, and only then, will you and she have contributed to your nation's measured economic growth — she by producing the meal, and you by consuming it and paying for it.

In simple terms, our modern world is obsessed with increasing its measured, or "monetized," economic growth as described above. The measure invented to summarize the state of monetized economic growth at the level of countries is the Gross Domestic Product, or GDP. This number, which is the most-reported measure of progress and success for the world's nations, does an effective job of reflecting the level of monetized economic activity. However, its flaws are many. Among them is the perverse fact that disasters, accidents, and acts of war tend to make the GDP go up, as nations mobilize their economies to recover, make repairs, or go on the attack. Moreover, many sorts of costs, ranging from environmental degradation to deep social inequities, more often result in additions to the GDP than they do reductions.

Growth as Usual, as used in this report (and as used by commentators such as the head of the OECD cited in the Introduction), refers to this amalgamation of physical expansion with monetized economic growth, leaving aside qualitative, good-or-bad distinctions among kinds of growth, and without any consideration to the systemic limits to growth. "Growth as Usual" is so well epitomized by the indicator we call the "GDP" that these two terms are very nearly synonymous. The GDP measures Growth as Usual.

The many critics of the GDP over the years have included the indicator's inventor, Simon Kuznets; even he warned against using it as a measure of overall welfare.[6] All these critiques have mostly fallen on deaf ears in national policy circles — until now. In the past few years, criticism of using the GDP as an ultimate measure of national progress has reached the highest levels of several national governments. In March 2011 even the Chinese government, for whom rapid economic expansion has been top priority for decades, made pointed public statements about its intention to reduce the emphasis on pursuing GDP-measured growth, in favor of emphasizing human happiness and better care for nature.

It is no exaggeration to say that a global shift in economic thought, and even national economic policy, appears to be under way. The extent of this shift is still to be determined, but it has many strands, incorporating advances in psychology and brain science, concerns about climate change, changing demographic patterns, and more. This report summarizes many of those strands and provides a window into the philosophical, psychological, and technical aspects of a very disparate global movement whose common message, if it had one, might be summarized this way: "We do not have to continue pursuing Growth as Usual, nor can we. But there are other things we can do. There is life beyond growth."

But what is it that lies "beyond growth"?

An Economy of Happiness

The word that now most often appears in place of "growth" as a goal for the world's economic systems is "happiness." There are other words and phrases that follow along in its wake, including "flourishing," "well-being," "prosperity (without growth)", and even "de-growth". But when leading nations like China or the United Kingdom do speak out on this issue, and begin the process of crafting alternative measurements of overall success, "happiness" is the word that leads the news.

The rise of "happiness" as the leading candidate for a revised set of national goals can partly be traced to the tiny Himalayan nation of Bhutan, which lies between China and India. The King of Bhutan has long been a very public promoter of a new concept and measurement process called "Gross Domestic Happiness," as a counter to the GDP. The "GDH" (or sometimes "GNH" — Gross National Happiness) is now actively measured in Bhutan, by survey. Through the diffusion power of international meetings, traditional media, and new social media, the idea has spread around the world.

As the concept has gained some distance from Bhutan, it has appeared increasingly mainstream and acceptable to the industrial powers. The British news magazine The Economist recently described it this way:

"Academics interested in measures of GDH (gross domestic happiness) were once forced to turn to the esoteric example of Bhutan. Now Britain's Conservative-led government is compiling a national happiness index, and Nicolas Sarkozy, France's president, wants to replace the traditional GDP count with a measure that takes in subjective happiness levels and environmental sustainability." (12 May 2011)[7]

This is not to say that Bhutan, or any other nation, has given up on the idea of growth in monetized economic terms; indeed, Bhutan itself has experienced rising GDP at a brisk clip in recent years — just under seven percent — driven by its sales of hydroelectricity to a fast-growing India, and by tourism. (Ironically, some of the tourists in Bhutan are people who want to visit the birthplace of Gross National Happiness.)

Moreover, the same nations now speaking about happiness and well-being as alternative goals are also still quite politically committed to Growth as Usual. Consider China: at the 2011 "BRICS" economic summit, the governments of Brazil, Russia, India, China, and South Africa (the "BRICS" countries) released a joint statement, the "Sanya Declaration," which opened with commitments "to assure that the BRICS countries continue to enjoy strong and sustained economic growth," which is universally seen as the only path out of poverty.[8]

Of course, poverty alleviation is not a driving concern for the economic growth policies of the world's most industrialized and wealthiest nations. But can nations that are already wealthy create and sustain "economies of happiness" without economic growth? This is the question that is now seriously being explored by a growing corps of economists and policy makers around the world.

Happiness, Money, and Economic Growth

It is said that money, the measuring stick for economic growth, cannot buy happiness. But many studies reveal that, in fact, money *can* buy happiness — up to a point. Measurements of people's happiness and general satisfaction with life tend to rise as their monetary incomes rise, across all cultures, until those incomes reach a certain level. After that certain level of income is reached — and it has been variously calculated as somewhere between USD 15,000 and 75,000 per person, depending on what country you live in, and on how you frame the research — happiness ceases to rise.

In simple terms, the growth of your nation's GDP will lift your nation up to a strong and stable level of happiness, *up to somewhere around USD 15,000 per person*. After that, GDP growth is buying many things; but additional happiness is probably not among them. This is often called "Easterlin's Paradox," after economist Richard Easterlin, who first studied the phenomenon in detail in the late 1970s.[9] The "paradox" is that we continue to pursue monetized economic growth in the belief that it increases happiness, when research shows that it does not. Easterlin's early work has since been extended by many other researchers, including (most prominently) Bruno Frey, Richard Layard, Daniel Kahneman, and Ruut Veenhoven.[10] Researchers tend to disagree on the question of whether the increase in happiness stops after reaching the USD 15,000 level (Easterlin's view), or whether it simply slows down a lot (as Kahneman's and Veenhoven's work seems to show).[11]

One can conclude that growing the level of monetized economic activity is not unimportant in efforts to improve human welfare. Indeed, it remains essential; but only, says the research, in those cases where nations are experiencing incomes significantly below USD 15,000 per person (in GDP terms). After that, it is unclear exactly what purpose — in terms of improving human happiness and satisfaction with life — economic growth serves.

Because economic growth, as currently practiced, is coming at such a great cost to the Earth (and often to human health as well) without returning any measurable increase in human happiness, the question of growth and happiness has become one of the most essential issues of our times. What is an "economy of happiness"? How do we achieve it? Is it the same as a "zero growth" or "steady state" economy? Or does it depend on new forms of "green growth"? Is there room for "de-growth" without inadvertently triggering some dramatic reduction in happiness?

These are not easy questions, but in these early decades of the 21st Century, the world appears to be grappling with them, more and more seriously. We now turn to the essential history behind these questions as well as the ideas, measurements, and analyses that frame much of the current debate about the relationship between growth and happiness.

The Rise (and Possible Future Fall) of the Growth Paradigm

The Origins of Economic Growth

Population growth is just one factor, one "ingredient," in the recipe we call economic growth; but it is obviously a fundamental factor. It is also, very likely, the oldest factor: successful *biological adaptations* by the human species allowed us to multiply and spread out across the Earth, into many different ecological niches. Very soon, however — so soon as to almost be called "simultaneously" — we humans also began to develop *tools and technology* (such as weapons and methods of housing construction), as well as cultural innovations (such as advances in language and cultures of farming) that worked together, systemically, to improve the survival rates of our relatively helpless babies, and to increase those babies' chances of living long enough to reproduce.

Pushing "Fast Forward" on the timeline of human history, and viewing that timeline from an imagined perspective outside our planet's atmosphere, produces an extraordinary "growing and spreading" effect. People move into every inhabitable corner of the planet, and even into some uninhabitable ones. Forests and swamps turn into farmland. Cities grow like mushrooms. Bases with small human populations eventually appear even at the frozen poles, and in space stations orbiting the planet. The number of people accelerates steadily, together with an increase in the natural resources they consume, the machines they make, the pleasures they enjoy, the inventions they come upon ... and the destruction they sometimes inflict on one another.

Dipping periodically into this fast-forward view of history, we would at various times see the important advances in the mechanisms that support the ever-increasing and ever-more-productive use of resources to increase and improve the material standard of living for human beings. We would see Roman roads and aqueducts, the development of Chinese and Mongolian systems of bureaucratic organization and trade management, the invention of banking in Renaissance Italy, the rise of science, the spread of technology, and so much more.

We would especially notice the rise of energy consumption, as humans learned new ways to convert substances found in the Earth's crust into heat and electricity. We would witness the spread of information and communications technologies, the densification of trade networks, and — assuming we knew where to look — a truly phenomenal increase in the production and flow of money around our planet. All of these phenomena have contributed to the exponential expansion of humanity's numbers, which in turn increase the amount of human activity driving all those phenomena, in a self-reinforcing spiral of transformative change.

But when did growth really take off? And why?

1849-1972: Growth's Explosive, Bloody Century

The modern "growth of growth" is a story that has no exact beginning. There are many decisive turning points in the story, such as the European discovery and colonization of North and South America, or the end of European feudalism and the establishment of commerce-and-trade-based governments, which freed up the entrepreneurial skills of entire classes of people and accelerated the spread of new technologies. These historical shifts can be seen as contributing to the "cause" of growth, but they can also be seen as an "effect" of growth, as swelling populations spread out, searching for — and demanding — more freedom

and better technologies to improve their lives.

But at some point, growth did "take off." If one looks at graphs of data showing the increase in population, resource use, production, GDP, trade, travel, waste, communications density, and many other telltale indicators of economic growth over the past couple of centuries, a pattern is easy to see. First, around the middle of the 1800s, the graphs (which up to then appear nearly flat) tip up, like an airplane taking off from a runway. Then, around 1950, they all tip up again, achieving the steep, nearly vertical trajectory of a rocket. Most such graphs of global change continue to have that shape today, and a group of scientists studying these trends have given a name to this phenomenon: the "Great Acceleration."

Figure 1: The "Great Acceleration," reflected in 24 global growth trends from 1750 to 2000, assembled by the International Geosphere-Biosphere Program (Steffen et al.)[12]

To help us understand this phenomenon, it can be useful to connect these "take-off points" in the global system to real events in history. As our first turning point, and as the symbolic "starting gun" for the acceleration of economic growth in a modern sense, consider the California gold rush of 1849.

Digging Up Money

The California gold rush is symbolically important to the history of growth, because it came at the end of European-American expansion across

The Great Acceleration

1950 marked the beginning of a massive acceleration in human activity and large-scale changes in the Earth system.

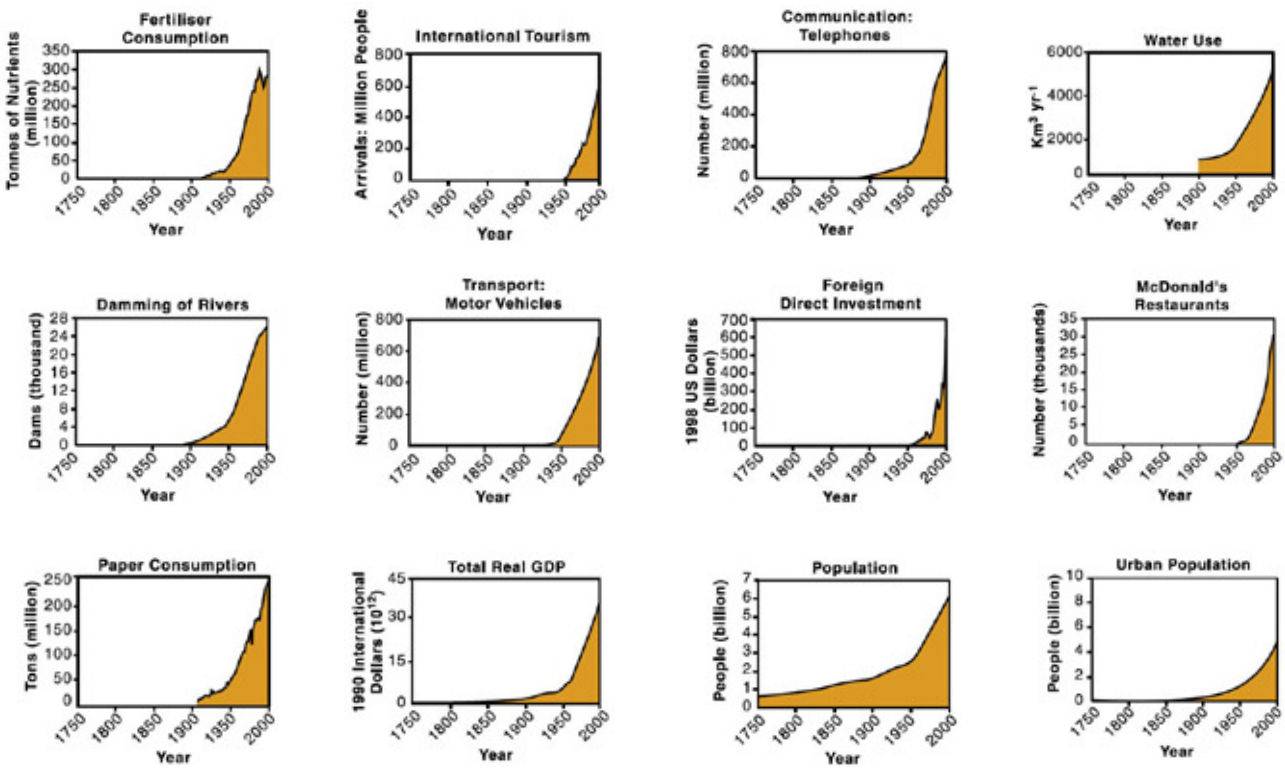

Figure 1: The "Great Acceleration," reflected in 24 global growth trends from 1750 to 2000, assembled by the International Geosphere-Biosphere Program (Steffen et al.)

North American continent, which many historians have recognized as the moment when the "frontier closed" — mostly for the United States, but also, in some ways, for the European colonization movement generally. After that, there were few parts of the planet (with reasonably mild climates) left for humans of any origin to migrate to. Nearly all the best habitats were already well inhabited by other humans.

The American Gold Rush was also important because it marked one of the last historical moments when people were able to migrate to a place where they could literally "dig up money." Gold has long been the preferred currency of many economic systems, from ancient times to the present, regardless of whether other currency systems were also in place. Other resources, ranging from oil to trees to fish, have to be *sold* — that is, converted into whatever form of money is in use by that society, if the harvester of those resources is going to be able to profit from them economically. Barter on a vast scale is too complicated, so converting "stuff" into "money," through the medium of a monetized economic system, is a necessity.

This conversion step of being "sold" is also possible for gold, of course; but it has often been practically unnecessary. In many situations, gold is money. This can still be seen today, in many ways. Here are three examples:

- In countries like India, people still often avoid banks and "wear their money on their body" in the form of gold bracelets, necklaces, and other jewelry. Efforts to convince people to sell their gold and turn it into monetized bank accounts meet stiff resistance, especially among the poor.

- In some countries, governments still actively seek out gold deposits to develop with the express purpose of "putting the gold in the bank" and improving that nation's balance sheet. A controversial gold-mining operation being developed in Rumania, for example (Rosia Montana), has been described by a former senior official familiar with the project as having, in part, that purpose.[13]

- In the world's financial markets, gold is still treated somewhat specially (compared to other metals and commodities). When stock and bond markets have trouble, for example, people look to gold as a more stable "store of value," which is one of the classic definitions of money.

However, while the use of gold as "money" persists, the California Gold Rush can be said to mark (very roughly) the end of an historical period of imperial expansion driven by gold, as well by the economically dominant European powers of the day. Starting with Columbus's famed journey to the "Indies", these powers had been in a constant search for lands to acquire with resources to exploit — and gold was always the greatest attractor. Most of the early European explorers were "driven by an insane lust for gold," notes the editor of The Great *Explorers* .[14]

By the late-1800s, when essentially all lands were spoken for by some country, and all the sources of gold (and many other resources) had been divided up among nation states, attention turned in earnest to the process of converting resources to monetized economic activity.

Another way of saying this is that the focus of human activity changed from pure "growth" (as humanity spread out on the planet) to "economic growth" — that is, from amassing raw resources such as land and gold, to the process of converting the available resources into other things that had perceived value, and that could be converted into money.

Growth's "Secret Ingredient": Energy

The process of combining raw materials with labor and technology to produce money was greatly accelerated by the energy and technology revolution (the "industrial revolution") that began to take form in the late 1800s. To return to Paul

Romer's "economic growth is like cooking" analogy, it was as though all of humanity had been struggling, for all of history, to cook over small wood fires with primitive utensils. Then suddenly, toward the end of the 1800s, humanity was given a fully equipped modern kitchen — with a gas stove.

Adding oil, gas, and coal to the recipe as plentiful energy sources, together with the development of coal-fueled electricity production, created a powerful upgrade in the capacities of the world's economies to create additional value that could be monetized. Trees could be cut faster to generate paper that became newspapers, sold to a growing population of increasingly better-educated readers. Cotton could be ginned and woven at high speed to become fabric and garments for the world's ever more fashion conscious shoppers. Around the turn of the new century, 1900, cars and other industrial products were rolling off fast-growing production lines that were driven by these extremely powerful new forms of energy. The industrial production process became increasingly efficient at turning ores into metals, for example, and then turning those metals into shapes and forms and machines that could, in turn, use that same energy to do increasing amounts of work, for which people were prepared to pay increasing amounts of money. The cash registers of the world were suddenly ringing at breakneck pace.

To get that money, more and more people in these growing centers of industrial activity went to work, essentially selling their time so that they could buy the products that they, and other people like them in other factories, were making. The links in this chain of production and consumption were often explicitly designed: Henry Ford, for example, structured his enterprise in such a way that workers at his car factories made just enough money to afford a car, so long as they continued working (to pay back the inevitable loans).

But there were many problems and conflicts in this process, as any quick reading of history reveals, from the labor struggles that resulted in unionization, to the terrible and grotesque shortcuts taken in the industrialized food systems (as documented by, among others, the American writer Upton Sinclair in his novel *The Jungle* in 1906), to the trade, power, and political disputes that resulted in the first true World War.

War exacted a horrific cost in both human and environmental terms. Unfortunately, war proved to be a rather more positive undertaking from the perspective of economic growth.

The Wars for Growth

While there are many ways to interpret the causes and driving factors in both World War I and World War II, these global-scale mega-disasters of the 20th Century were at least partly driven by the unquenchable thirst of that era's ambitious empires and nation-states for rapid economic growth, and for the key factors that make growth possible: energy, land, raw materials, technology, trade and investment systems, all managed by well-trained, disciplined, hard-working people.

While World War I is mostly remembered for having been "caused" by the assassination of Archduke Ferdinand in Sarajevo, many of the underlying dynamics that were triggered by that fuse had to do with the control of resources and trade routes by nations that had empires to protect (or that had imperial ambitions). Indeed, empire-building has, since the dawn of recorded human history, always been driven by political visions of continuous and rapid economic expansion. The World Wars of the 20th Century equipped these ancient habits with modern technologies, which amplified the destructive power of the empire-builders by many orders of magnitude. Those technologies are dependent on access to vast amounts of energy, leading some modern commentators to interpret some of the main battle action of World War II — such as Japan's Southeast Asia expansions, Germany's forays into Russia, and the US entry into both the Atlantic and Pacific theaters — in terms of the need to control key resources such as oil. (See for example Daniel Yergin, *The Prize*, 1990.[15])

Many historians note that the deep economic depression experienced by the industrialized world during the 1930s was only finally ended by the conversion of the industrialized nations to a war economy. When at war, massive amounts of state investment are poured into massive amounts of technology development and industrial production, and everyone is put to work. Some note that the world's industrial economies have essentially continued to operate in a wartime mode, right up through the present day, driven first by the "Cold War," and more recently by the "War on Terror."

As noted earlier, war has proven to be one of the world's most reliable ways for causing its measurable, monetized economic growth — its "Gross Domestic Product" — to appear to rise. Indeed, the GDP itself was itself used as a kind of weapon of war.

The Rise of the GDP

The Gross Domestic Product is, in simple terms, a measure of all the monetized economic activity that takes place in a country, during a specified period of time. When the numbers associated with the GDP are generally going up, this is called "economic growth." When the numbers are going down, this is called "recession." And when recessions continue for a longer period of time, they are usually called a "depression." For all practical purposes, and for most of the last century, the GDP has been reported to the global public as though it were identical to economic growth, and therefore *identical* to progress overall, in every nation.

This formal way of measuring monetized economic activity was born in the middle of the explosive century that we have called "the growth of growth". The GDP was initially created by American economists to help the US government try to cope with the economic depression of the 1930s. However, it proved even more valuable in planning for war-time economic production. The GDP allowed the government to find factories that were not fully utilized, and ensure that production was maximized. According to economic historians, Hitler had no GDP (or similar set of effective national economic statistics), and as a result many German factories were producing much less than they could have. This led to a big, and probably decisive, difference between the two warring factions in terms of numbers of tanks, planes, bombs, etc. that they could throw at each other (see Cobb et al., "If the GDP is Up, Why is America Down?", *Atlantic Monthly,* 1995).[16]

But the inventor of the GDP, Simon Kuznets, became increasingly worried that his invention would be misused. He testified on this point before the US Congress as early as 1934, warning that the new national economic statistics should not be used to assess the overall welfare of the nation. And in the 1960s, he wrote that "Distinctions must be kept in mind between quantity and quality of growth, between its costs and return, and between the short and the long run ... Goals for 'more' growth should specify more growth of what and for what""[17]

The warnings of the GDP's inventor were, however, completely ignored, and as the world's financial and economic systems grew, the GDP became more and more central as a scorecard of success for those systems. International financial agreements, political campaigns focused on growth, United Nations indicators reflecting the socio-economic status of countries, regular reports on GDP-measured Growth as Usual in nearly every country's news media, and many other examples of continuous and repeated use served to inscribe the GDP (and other measures of economic growth) deeper and deeper into the mindset of decision-makers, nearly everywhere on planet Earth.

When one uses only the measure of the GDP as a scorecard, human civilization appears to be winning the Game of Life by a landslide. It is only when one begins looking at other measures that we realize that economic growth has also been creating growing amounts of trouble.

The Tipping Point for Growth as Usual

Starting in the 1950s, the growth curves for many indicators of human expansion – not just monetized expansion as measured by the GDP, but physical expansion, measured in terms of numbers of people and the amount of resources they use and discard – tipped up dramatically, as noted earlier. It is as though the new age of rockets and space exploration was serving as a mirror for the rocketing trends here on Planet Earth.

The reasons for this "tipping point" are many, but surely the combination of war *and* peace – that is, the Cold War between the capitalist West and the communist East, which never flared up into global-scale armed conflict — was a major cause. These competing world economic and political systems, led by the United States and the now-defunct Soviet Union, made vast investments in science, engineering, and industry, as well as in the education needed to fuel technological advance. Western countries also promoted an increasingly consumerist lifestyle, partly as proof that the Western model was preferable to the state-controlled forcible "equality" of the Soviet bloc nations.

The result was spectacular growth, in every nuance of the term described earlier: more people, more production and consumption, more money moving through economies, and accelerated technological development. That growth was also, essentially, unquestioned. With the exception of the early warnings from researchers and writers — most visibly from US authors such as Rachel Carson (*Silent Spring,* 1962) and Paul Ehrlich (*The Population Bomb*, 1968) — the idea that there might be planetary limits to human expansion was almost unheard of.

1972: The Launch of the Global Growth Debate

In this historical review, the year 1972 emerges as a key milestone year. This was the year when the very last US Apollo spaceship took off, and the US program of moon exploration was laid to rest because of pressing national budget problems. Interpreting it symbolically, one might see in this turning point a tacit admission that we are bound to our home planet. We cannot escape its boundaries and find new planets (or moons) to inhabit anytime soon.

More concretely, the year 1972 also marked the launch of the United Nations' first global environmental conference (in Stockholm), which reflected many newly emerging worries about the future of the planet. The "Stockholm Conference" is now seen as the kickoff for what became a series of global summits on environment and development issues over the ensuing decades. The year 1972 also marks the creation of the world's first environment ministries and the passage of the first comprehensive environmental laws, in the United States and in several European countries.

But no other event captures the importance of 1972 as a turning point in the history of growth as the famous Club of Rome / MIT study, *The Limits to Growth*. This groundbreaking book reported on a study that used a computer model of world population growth, industrial production, resource use, and pollution. Its young authors (average age about 30) warned of serious resource and environmental trouble ahead if human expansion continued on its then-current course. The book burst onto the world stage like ... well, like a rocket. It sold millions of copies, generated hundreds of newspaper and magazine headlines, and it launched an acrimonious global debate on the long-term prospects for economic growth. That debate continues to this day.

During the decade of the 1970s, other books and public voices questioning the standard model of economic growth also began to emerge. These voices not only questioned the dominance of the "growth paradigm" (as some people began to call it), but also offered alternative visions of what a national or global economy could look like if it was *not* focused solely on generating unending growth.

Some of these voices, such as the German-British economist E.F."Fritz" Schumacher in his bestselling book *Small is Beautiful* (1973), helped to fuel the counter-cultural movements of the late 1960s and 1970s. Others launched small-but-stubborn counter-movements in the academic discipline of economics itself, such as the classic work of Herman Daly on *Steady State Economics* (1977).

These cultural and intellectual movements were, however, quite marginal. They had vanishingly little impact on growth itself, or on the continuing development of the institutions, policies, and news reports that were anchoring the GDP ever deeper into the prevailing mindset. Despite the big splash made by *The Limits to Growth*, its actual reception in the political and academic circles of the day was hostile in the extreme. For decades, the book was regularly held up (and often ridiculed) as an example of wrong thinking.

However, the history of the debate on growth during the period from 1972 to today could also be graphed as a gently rising line — one that starts to look more and more like a rocket. Public concerns about climate change, biodiversity loss, large-scale poverty, and other problems have grown rapidly in the last decade. A wide variety of scientific studies have established quite conclusively that human expansion and the ecological systems of the planet are on a collision course; indeed, the collision was probably already under way. Perhaps the most poignant indicator of this mega-shift in global opinion about the actual limits to growth was the publication, in May 2008, of a front-page article in the *Wall Street Journal,* acknowledging – for the first time – that the arguments in 1972's *The Limits to Growth* were essentially correct. (That newspaper's contributors and editors had long been among the strongest critics of the original arguments in that book.)[18]

Today, it would be a gross exaggeration to say that either the expansion of humanity's presence on the Earth, or the primacy of economic growth as the top-priority policy goal of nearly all national governments, are under serious question. But there are genuine signs that history is approaching one of those turning points which will be marked by historians as a "before and after" moment. There are increasing indications, particularly in the form of statements and actions by political leaders, that we are approaching the moment when "life beyond growth" is becoming possible to imagine. The previously unassailable fortress protecting economic growth — a fortress whose building blocks include global financial systems, national statistics, enabling institutions, and the core beliefs of both leading economists and global political leaders — is starting to crumble.

But before examining those signs, let us look first at the elements of that fortress in more detail.

The Building Blocks of the Growth Paradigm

For the past century, "economic growth" has been more than a social and economic goal: it has been a *dominant paradigm*, a way of thinking about the purpose and structure of human civilization.

A "paradigm" is a philosophical or theoretical framework. It is a set of ideas and concepts that, in turn, can serve as the foundation for laws, rules, customs, beliefs, and ways of life. In professional disciplines, paradigms are the fundamental concepts that determine how that discipline is practiced. The history of science, for example, is a history of paradigms establishing themselves (e.g. Newton's laws) and then getting replaced or extended by new paradigms (Einstein's theories).

When a paradigm is operating at the level of a whole society and its economic systems, that paradigm can become the basis for everything from how trade and commerce is organized to how individuals make personal decisions about their lives. As the previous section described, economic growth emerged during the last century as a globally dominant paradigm, affecting the laws, structures, customs, values, and habits of the societies containing the vast majority of human beings. It is important to note that the paradigm, as a mental construct, was mostly based in the *lived experience* of human beings, as technologies improved, life-spans lengthened, energy became cheap and easy to obtain, and opportunities expanded. But the paradigm was also supported in intellectual, legal, and cultural ways.

Wherever one looks today — from the economics textbooks to the bank accounts of individuals, from political discourse and international negotiation to the chatter between neighbors — the "philosophical and theoretical framework" of economic growth is always present. This chapter describes some of the elements of this globalized paradigm, which serves as a reinforcing foundation to the continuous physical processes of resource extraction (and exhaustion), distribution (usually unequal), over consumption (or under consumption), pollution, and waste that are among the most problematic signature elements of economic growth.

Foundations in Economic History

In the 1700s, British social philosopher Jeremy Bentham introduced a new concept to describe the sum total of humanity's happiness. He called this concept "utility," and "maximizing utility" became a central focus of the emerging discipline of economics. However, *measuring* utility proved to be exceedingly difficult, and in the early 20th century, economists resolutely shifted their attention away from "happiness," which could not be observed, and onto observable phenomena. This shift was partly driven by the desire to make the social science of economics more like the "hard" sciences, such as physics or chemistry, disciplines in which only that which can be observed is acknowledged to be "real".

In 1920, Alfred Marshall (UK) noted that "desire," a key element of utility, could only really be observed in the price someone was willing to pay for a product or service. In 1932, Lionel Robbins (UK) argued strongly that economics should not be concerned with the highly subjective concept of "happiness," but with economic behavior, as reflected by purchase prices and purchasing decisions. Paul Samuelson (US) called this "revealed preference." Ideas like these established a paradigm for economics that entirely dominated the 20th Century: utility, the sum total of human happiness, was effectively made equal to money.

In ways both subtle and explicit, this shift in economic theory implied that the more money people had, the happier they would be; and this in turn created the intellectual foundation for a century of preoccupation with economic growth as measured by the GDP.

The Prominence of Economics and Economists

Another important pillar holding up the growth paradigm is the high relative status afforded to economists. Economists are prominent in all modern industrial societies. They play a highly public role as opinion leaders, policy-shapers, political advisers, and media commentators. Because mainstream economics is focused so intensely on monetized economic activity — how to "stimulate the economy," "increase employment," "avoid recession," etc. — the vast majority of economic language in the public sphere is focused on maximizing growth.

Perhaps the most compelling indicator of the historical dominance of the growth paradigm in economic thinking — and also an indicator of the cracks in that paradigm — is to be found in the so-called "Nobel Prize in Economics." This highly publicized annual award is not actually a "Nobel Prize" in the formal sense, meaning one of the prizes awarded by the Nobel Foundation and initiated by Swedish inventor Alfred Nobel at the signing of his will in 1895. The economics prize was added much later, in 1968, and was established independently by the Bank of Sweden. The formal title is "Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel."

With relatively few exceptions, the "Nobel Laureates" in economics have all been rewarded for their contribution to the enormous body of sophisticated theory and analysis tools that supports, as its main purpose, the growth of the economy. To cite just a few typical examples, one can look at the Bank of Sweden's summary explanations for why the Prize was awarded:

- "for his analysis of monetary and fiscal policy under different exchange rate regimes and his analysis of optimum currency areas" (Robert Mundell, 2000)
- "for a new method to determine the value of derivatives" (Robert C. Merton and Myron S. Scholes, 1997)
- "for his contributions to the theory of economic growth" (Robert Solow, 1987)
- "for their empirical research on cause and effect in the macroeconomy [related to forces affecting the GDP]" (Thomas J. Sargent and Christopher A. Sims, 2011)

In recent years, however, the prize has occasionally been awarded to people whose work, while not exactly in conflict with traditional growth-centered economics, at least symbolizes an expansion of the discipline's mainstream to include factors other than the behavior of firms, the movement of money, and the dynamics of markets. Of special note are Amartya Sen, cited for "for his contributions to welfare economics" (1999), and Elinor Ostrom, "for her analysis of economic governance, especially the commons" (2009). Sen is known for championing the well-being of the poor, while Ostrom is known for work on resource and environmental management.

As a final indicator of the prominence of economists in the global dialogue, a search on the word "economist" in the current news articles that are indexed by Internet search giant Google produces about 30,000 results (as of 28 September 2011). This is greater than the results for "singer," (29,000), "athlete" (27,000), "journalist" (25,000), "businessman" (22,000), "politician" (19,000), "scientist" (19,000), "musician" (16,000), or, of course, "environmentalist" (5,000). Scoring slightly higher were news article citations involving the word "lawyer" (36,000) and "doctor" (39,000).

Economists are truly among the elite when it comes to professions having influence over our daily interpretation of reality; and when interpreting

reality, they tend strongly to focus on growth and related issues.[19]

The Development and Use of Economic Indicators

The previous section described the Gross Domestic Product (GDP) and its extraordinary role as perhaps the world's most important and widely accepted indicator. But the GDP is hardly alone as a statistical pillar holding up the paradigm of economic growth as the overriding concern of human striving.

Nations, together with the supranational structure of agreements and institutions that guide global financial affairs, use a very wide variety of measurements to reflect different facets of the world's pursuit of economic growth. These include, to cite just a few examples, the unemployment rate, the rate of inflation, the relative values of currencies, the prices of many key commodities, the combined value of shares sold in the world's stock markets (stock market indices), the price of housing, the level of household debt.

The combined impact of these economic indicators, which are reported with great frequency and priority in the news media of most nations, is enormous. They frame a great deal of civic discourse at all levels, from their dominant role in national political debates to their frequent reference in family conversation in the kitchen. More importantly, they work together to send a continuous message: economic growth is paramount.

The fact that this "statistical chorus" is, for the first time in modern history, being questioned by some of the leading political and economic voices of our time (see next chapter), is one of the most decisive arguments for considering seriously the idea that we might be moving into a period of "life beyond growth."

The End of Communism and the Victory of Globalized Capitalism

In its brief review of history, this report has focused principally on the institutions and policy mechanisms associated with industrial capitalism and free-market societies. This is because the capitalist system emerged as the acknowledged "winner" in the ideological struggle with state-controlled communism that dominated history in the second half of the Twentieth Century.

In 1992, political commentator Francis Fukuyama published a book-length essay that became, in itself, a symbol of this victory. In *The End of History and the Last Man*, Fukuyama argued that free-market capitalism was the only effective way to manage a modern state, and that the fall of Communism and triumph of capitalism might mark the end of humanity's socio-cultural development. Free-market capitalism was, according to Fukuyama, the last and best stage of economic evolution.

Since then, little has happened to suggest that Fukuyama was wrong in that general conclusion. In the wake of the collapse of the Soviet Union, the countries of the former "Eastern bloc" all moved with great speed to adopt the Western capitalistic economic model. This revolutionary shift was accompanied by more evolutionary, state-led decisions in China and India to liberalize markets, open trade, and generally embrace a capitalist economic model. Those few countries that persist (North Korea) or experiment (Bolivia) with state-controlled economic policies are increasingly seen as outliers in a well-established global economic order, structured by myriad trade and currency agreements.

This international trading regime is itself founded on the firm conviction that all growth is good, and that any restrictions on trade that might threaten the overall growth of the global economy — or threaten the opportunity for others to profit from open, globalized markets — are to be avoided. An extreme example of the extent to which this belief is held as predominant preeminent could

be seen in mid-2011, when the European Union filed a formal complaint with the World Trade Organization against Canada because the State of Ontario was providing preferential subsidies to Canadian producers of renewable energy, instead of keeping its markets open to all comers. Ethical or environmental arguments might argue for keeping such energy production, and the jobs it can generate, local to Ontario; but global trade rules in the service of global economic growth unrelentingly trump such concerns. Trade rules, together with the rest of the international rules and institutions that now govern the global economy, are among the bricks in the wall that supports the growth paradigm.

Cultural Values Regarding Natural Resources

In recent years, a number of prominent religious leaders have made general appeals to their constituencies to care for the environment. Their calls for stewardship of the Earth and its resources are, however, a very recent phenomenon.

For most of recorded history, including the recent explosion of growth in the 20th century, most of the dominant world religions have either tacitly or actively promoted a view of the natural world that asserted a human right to master nature, and to use its resources in any way society saw fit. "Dominion over the earth" is the Biblical phrase (from the Judeo-Christian tradition) that sums up this prevailing philosophy.

Meanwhile, during the Cold War, Soviet- and Chinese-style communism had a function similar to religion in those societies in terms of framing core values, ethics, and attitudes — including when it came to framing core values regarding nature. Massive agricultural, industrial, and urbanization efforts were undertaken in the name of "progress" — a synonym for economic growth in the communist context — without any regard for the environmental consequences.

These fundamental attitudes toward nature, which characterized most economic systems on the planet for most of recent history, contributed to and enabled the growth paradigm in many ways. Nature was to be used for human gain; indeed, natural resources left unused were framed as waste. This deeply rooted cultural drive to use all available natural resources, in order to support growing populations and economies and meet human needs and desires, was a key component of the drive for economic growth.

The Role of Currency and Monetary Systems

During the 20th Century, as noted earlier, officially defined (or "fiat") national currencies replaced gold-backed currencies as the dominant monetary systems the world over. These currency systems differed from gold-backed currencies in fundamental ways. Money was no longer "convertible" into a real asset (gold); its value was based on nothing but the promise of the government backing it, and the implicit agreement of all actors in a market to ascribe it that value.

Freed from its link to gold, money became grounded in a complex system of loan- and purchase-based creation mechanisms managed out of the world's central banks. The story of how currency systems evolved in modern times is complex, but the story has a relatively simple conclusion: these systems were designed, from the ground up, to keep the economy growing. Whether central banks are manipulating interest rates, cajoling market actors, or pumping extra cash directly into the system, they are doing so in order to sustain GDP-measured economic expansion.

To an astonishing extent, modern money enters the world not as an exchange token representing current real assets — which is still how most people think of it — but as a lien against the future. Commercial banks, for example, essentially create money by making loans to their biggest borrowers. As this new loan-based money continues to make its way into the world's financial system, it carries with it an obligation to be paid back, someday, with

interest. The interest creates a built-in "demand for growth": economic activity must expand, if interest payments are to be met. In this and myriad other ways, growth is built the very fabric of our monetary systems.

The Spread of Consumerism and the Culture of Desire

Few people are familiar with the name Edward Bernays, but in the first half of the 20th Century, Bernays — widely acknowledged as the inventor of "Public Relations" as a profession, and a nephew of Sigmund Freud — was extraordinarily influential in American political and business life, from the 1920s through to the 1950s. Using manipulative mass psychological messaging on a national scale, channeled through the emerging power of the mass media, Bernays aimed to change the way Americans thought about themselves and about their relationship to products and services. To an astonishing degree, he succeeded in that aim. His work laid the groundwork for the internalized culture of consumer desire that spread from the United States to the rest of the world — and became a cornerstone of the growth paradigm.

The above paragraph may sound far-fetched, but it is well documented in the academic literature as well as in documentary film. In a carefully researched four-hour documentary film series called "The Century of the Self," broadcast in 2002 (and available to view on the Internet site YouTube.com), the BBC's Adam Curtis describes how Bernays shaped a concerted national effort in the United States to change Americans from frugal citizens into hungry consumers.[20] This effort was driven, in part, by the US government's concerns about the risk of unleashing the same "primitive" psychological forces that had terrorized the world in Nazi Germany. Creating a nation of consumers was a strategy for creating a nation of controlled, rational citizens who could be trusted to participate in democracy.

Bernays' work was also commissioned and financed by US industrial interests, whose original motivation was to avoid market saturation, since they were producing large amounts of products in a nation of frugal savers. Bernays and others succeeded in converting people from a *needs*-based approach to shopping, to a *desires*-based approach.

To a phenomenal degree, Bernays' ideas on how to turn frugal, self-reliant citizens into fearful, self-oriented consumption machines — ideas that were shaped by the writings of his uncle, Sigmund Freud, and Freud's views on the nature of the subconscious mind — gave birth to an entire industry devoted to shaping mass opinion and desire. This industry (PR, marketing, and advertising) in turn has shaped the lives of billions of people. And yet, the fact that our modern focus on consumption is the direct result of decades of conscious social engineering is still almost entirely unknown.

Today, the coupling of happiness to the satisfaction of desire through economic consumption is now so widespread that it may in fact be the strongest element of the economic growth paradigm — and the most difficult element of that paradigm to change.

These are some of the key structures holding up the paradigm of economic growth today. Now we turn to the challenges to that paradigm. These challenges have taken many forms over the years, and their history has been simplified dramatically. But looking at this history in "big picture" terms, as one looks at a landscape from an airplane, some patterns do begin to emerge.

Alternatives to the Growth Paradigm: A Short History

Human beings have not always welcomed economic growth with open arms. Throughout modern history there are incidences of people rising up to resist changes that were being promoted with the purpose of sustaining or accelerating growth. Some of this resistance has, of course, been in the form of resistance to invasion from external military forces, as described earlier in this report. But there are many other types of resistance.

Sometimes resistance to growth has taken the form of ***resistance to technological advances*** designed to accelerate growth. The most famous historical example of this is the "Luddite" movement in England, from the early 1800s, named after its leader Ned Ludd. The "Luddites" were textile workers who destroyed new mechanized looms because they believed they were a threat to their jobs. Proponents of the new technology argued that creating more efficient looms would not reduce jobs, it would only increase production — that is, it would accelerate growth in production, but not at the expense of jobs. Arguments about whether "labor-saving technologies" contribute to employment or to unemployment continue to this day.

Another important form of resistance has been in the form of ***resistance to increased demands on labor.*** This has been most visible in the history of unionizing, as workers organized to resist demands that they work ever-longer hours for low wages (usually in poor working conditions). Growing economies needed more and more production, and factory owners also wanted to make increasing profits. Unionized labor fought hard, especially in the early and middle 1900's, to put limits on working hours and set standards for workplace conditions.

Finally, and perhaps most importantly, is the ***resistance to the appropriation of land and resources*** that has especially characterized the struggle of many indigenous people against invading colonizers. To pick just one example, the aboriginal peoples of Australia lived in a "steady state economy" for 50,000 years before the arrival of European settlers. They had no need for economic growth. In contrast, the growth imperative of the colonizers, which led to expansion into occupied lands and the extraction of resources such as lumber or metal, was precisely the force that aboriginal peoples were resisting — and still resist—using legal challenges, appeals to ethics and morality via the media, and other means.[21]

To return to the example of North America and the spread of European colonization across that continent, it is instructive to look at the economic situation of one of the first successful English colonial settlements, the Plymouth Colony (near present-day Boston), established in 1620.[22] The Plymouth settlers, who are remembered today primarily as "Pilgrims" and as seekers of religious freedom, were also shareholders in one of the earliest corporations: each person was equal to one share in the Plymouth Company. The life of these early colonists in the "New World" of America was largely spent seeking to maximize profits for themselves as well as for their other, absent shareholders – financial investors in London – more than it was spent in religious worship. Making that profit required expansion: more people, more production, and more trade. This pattern of expansion quickly brought colonists into conflict with the native peoples who, through America's Thanksgiving rituals, are usually remembered for their friendly welcome and for the helping hand they offered to the struggling colonists. The initial friendliness of the

"Indians" quickly turned to resistance once the native peoples understood that it was the intent of the colonizers to commandeer their lands and resources. But the Native Americans did not stand a chance against the superior firepower, and eventually the superior numbers, of the invading colonizers.

The story of the aborigines of Australia or the encounter of Native Americans with the Plymouth Colony have been repeated thousands of times around the world in the past few centuries. This form of resistance to the growth paradigm is still happening all around us, though now it happens at the margins of an expanding global industrial civilization – in the Amazon rainforest, for example, or in the highlands of Papua New Guinea.

In addition to these larger social, economic, and historical currents, there have been numerous discrete movements that have also crystallized around (or in some way incorporated) a resistance to the dominant growth paradigm, and the search after an alternative that valued happiness, well-being, and similar values. Here are some of the most important movements, in terms of the history of the growth paradigm and its alternatives.

Utopian Movements

The word "Utopia" comes from Sir Thomas More's novel of 1516 of the same name, which depicted his vision of a perfect society. However, the concept of the perfect society is much older, dating back at least to Plato and his book *Republic* (360 BCE). Over the centuries, and cresting in the 19th and 20th centuries, many different experiments in "utopian" social living have been attempted. The history is far too complex to summarize or characterize in a few sentences, because it spans such a wide range of philosophies and practices, from the small-scale religious simplicities of America's "Shaker" movement in the late 1700s, to the birth of modern state Communism on a gigantic scale in Russia, in the early 1900s.

Not all Utopian societies are, or were, "anti-growth," as the expansionist imperialism of the Soviet Union makes plain. However, most of the smaller scale Utopian movements in modern times have been at least distrustful of the economic growth paradigm, if not practically opposed to it. Religious Utopians, like the Shakers in the United States, often ran successful businesses and participated in the economic life of the nation in which they lived; but they focused less on business, which they saw as a means to an end, and more on the character-building virtues of work. "'Tis a gift to be simple," goes the old Shaker hymn, neatly summing up the attitude of most Utopians toward the accumulation of wealth: do not pursue economic growth for its own sake.

The Cultural Revolutions of the 1960s and 1970s

The cultural history of the Western democracies in the 1960s and 1970s includes a strong element of "counter-cultural" rebellion, particularly among young people. While thoughts about the economy were rarely expressed directly, much of the rebellion was against the dominant paradigm of economic growth. "Hippies" and other cultural protestors were not concerned with increasing their incomes; they were interested in increasing their sense of freedom. Being chained to a job and a salary, "working for The Man" in the American slang of the day, was considered "selling out" and was to be avoided at all costs. At one extreme end of the opinion spectrum, participation in the normal economy was seen as tantamount to endorsing imperialist wars of conquest overseas.

This establishment-questioning frame of mind was also influenced by the earliest environmental thinkers (such as Rachel Carson's 1962 book *Silent Spring*) and environmentalist events (such as Earth Day in 1970, and the first United Nations Conference on the Human Environment in Stockholm in 1972). Out of that context, interest began to grow in alternative economic theories. Many people who lived through this era also credit the first photographs of the Earth taken from

space (by US astronauts and Soviet cosmonauts) with changing the way people thought about the economy and its relationship to people and ecosystems. The phrase "Spaceship Earth", for example, was coined during the 1960s by economist Kenneth Boulding.[23]

These historical movements set the stage for economic thinkers such E. F. Schumacher, who introduced "Buddhist Economics" in 1966, and Herman Daly, who first introduced the phrase "steady state economy" in 1973. Their ideas about smaller-scale, non-growing economies were considered quite radical at the time. But they planted the seeds that inspired early experimentation, in lifestyle and community development as well as in research. Those experiments, in turn, helped prepare the ground for the mainstreaming of what once was radical, as we shall see.

Simple Living Movements

In 1981, the American writer Duane Elgin published a book called *Voluntary Simplicity*. Elgin himself saw this work as directly inspired by the ideas of E. F. Schumacher (especially Schumacher's 1973 book *Small is Beautiful*)[24], and he saw the promotion of Voluntary Simplicity as in some sense "carrying on" that torch. During the next two decades, the idea of choosing to live simply — to reduce one's income in order to reduce one's environmental impact, while increasing one's sense of freedom and inner peace — spread until it had become a minor social movement in the OECD nations, spanning different demographic groups. The idea of choosing simplicity and resisting the "rat race" even gave rise, especially in the 1990s, to magazines and television shows on lifestyle. It simultaneously gave birth to parallel movements such as the "Slow Food" and "Slow Cities" initiatives, which linked ideas about simplicity and non-commercialized activity with a higher quality of life.

While the simplicity movement has not achieved mainstream critical mass, it has been a major contributor to a stream of social thought that has, in turn, helped prepare the ground for new economic thinking about happiness and well-being. Individual commitments to simplicity gave way to more collective commitments, of the same kind, that were embraced by small communities, villages, and whole towns.

Eco-Villages, Transition Towns, and Slow Cities

As awareness of the Earth's major environmental problems grew and spread during the 1990s and early 2000s, so did a movement of people dedicated to demonstrating an alternative way of life that would not "cost the Earth," and that would be more resilient in the face of expected environmental, social, and economic challenges. Some people were moved to design and start new communities, from scratch, that embraced these alternative economic and environmental principles. "Eco-villages," for example, are often small-scale settlements set up in the margins of industrial societies, in places ranging from abandoned industrial or urban sites to rural areas. They are designed from the ground up to be more environmentally friendly, and to attain subsistence and sufficiency in their economies — not growth.

Others were more inclined to reform existing communities. The "Slow Food" movement, for example, involves avoiding "fast food" and embracing a more artisan-like and ecological approach to meal preparation and enjoyment. Slow Food organizers expanded that concept into the "Slow Cities" movement (especially in Italy) or even "Slow Society" concepts (championed even among business leaders in Japan during the middle 2000s). More recently, the "Transition Towns" movement — which grew out of the "Permaculture" eco-gardening movement — emerged around 2005 as a coordinated program to help small, existing communities become more resilient, self-reliant, and environmentally friendly.

Again, these movements have remained decidedly marginal to the mainstream. While a few townships have more or less formally embraced the idea of being a Transition Town, for example, the movement

mostly consists of smaller-scale "Transition Initiatives," sometimes involving hundreds of people in a community, and sometimes involving just a handful of people. However, the movement itself is growing in popularity and, like other alternative movements before it, has served as an incubator for alternative ideas regarding the relationship between happiness, economics, and the well-being of both people and nature. The growing popularity of these movements, which attract the interest of many more people than actually practice them, has helped set the stage for a more thorough-going revision of traditional economic thought.

The New Economics

All of the foregoing are, in some ways, a preface to the emergence of what some have called "New Economics" — a body of economic philosophy and theory built on ideas more associated with sufficiency than growth, and with respecting the limits of the Earth system rather than testing those limits with untrammeled expansion. New Economics may have begun in the alternative and counter-cultural byways described earlier, but it has certainly not remained there. The pioneering efforts of thinkers like Daly and Schumacher have been joined by the ideas of countless others, in economics as well as other disciplines in the social and natural sciences. (A good review can be found in David Boyle, et al., *The New Economics,* Earthscan, 2009.)[25]

Along with the New Economic ideas have come new tools involving advanced mathematics, computer modeling techniques, and even brain scan technology, which have matched the sophisticated methods employed by "mainstream" exponents of traditional growth economics and helped to legitimize the New Economics in the eyes of a previously skeptical political class. Today, New Economics comprises an expanding critical mass of new thinking whose champions include Nobel Prize-winning economists and heads of state.

The difference between the New Economics and the older paradigm of growth-fixated economics, "Growth as Usual," can be briefly summarized as follows:

Broader, More Humane Goals: Growth as Usual is focused on simple expansion, supported by the belief that growth always guarantees an advance in human progress. New Economics focuses instead on the real outcomes that economies are supposedly trying to achieve: the well-being of citizens.

An Ethical Orientation: Growth as Usual barely considers the ethical questions involved in building wealth today regardless of its impact on the future. Moreover, it tends to value concentrations of wealth over more equitably distributed wealth. New Economics not only concerns itself with equity issues today, but with tomorrow as well: specifically, the fairness of today's economic policies and practices to the prospects of future generations (a concept known as "inter-generational equity").

Clear Ecological Boundaries: Growth as Usual often ignores the reality that ecosystems and resources are limited. New Economics takes those limits as a starting point, around which to build a new, working system of valuation, development, employment policy, etc.

More Systemic Indicators: Finally, Growth as Usual keeps score in simplistic ways, led by "King of All Indicators," the GDP. New Economics uses an array of modern measurements to provide corrective feedback on the issues that really matter — including measures of subjective happiness and perceived quality of life.

Elements of the New Economics are now in the process of crossing over into what might be called "Mainstream Economics," meaning the economic concepts, policies, and measures embraced by national or governmental decision makers. But it is important to note the New Economics also retains a certain separateness — its status as "alternative" — partly due to the disaggregated way in which its various practitioners frame, describe, and promote their somewhat different formulations of relatively

similar concepts.

In the next chapter we will consider some of these diverse contemporary expressions of the New Economics, in the form of different frameworks or "brands." Each brand of New Economics profiled here has achieved some level of mainstream acceptance, and each generally has an indicator or set of indicators that help to express the brand in concrete, measurable terms.

Rethinking Growth: Alternative Frameworks and their Indicators

The historical streams and examples summarized in the preceding chapter are important to understanding the roots of contemporary growth criticism, but they have essentially been marginal activities. None of these movements — from the Luddites of the 19th century to the Transition Towns of the 21st century — can be said to have had a decisive, history-changing impact on the overwhelming dominance of economic growth as the driving theme of contemporary global civilization.

However, in recent years there have appeared some indications that the dominance of the growth paradigm is starting to weaken, ever so slightly. The evidence is most convincing when it appears not at the margins of the world's many societies, but at their centers — for example, in the voices of some of the world's leading economists, speaking to heads of state.

The most prominent example of this was the formation of the Commission on the Measurement of Economic Performance and Social Progress, also known as the "Stiglitz Commission," after its Chairman, the Nobel-Prize winning economist Joseph Stiglitz. (The report of the Commission has also been referred to as the "Stiglitz-Sen-Fitoussi Report.")[26] The Stiglitz Commission was formed in 2008 at the request of French president Nicolas Sarkozy. The reason for its formation was officially explained this way:

"Increasing concerns have been raised since a long time about the adequacy of current measures of economic performance, in particular those based on GDP figures. Moreover, there are broader concerns about the relevance of these figures as measures of societal well-being, as well as measures of economic, environmental, and social sustainability."[27]

At the conclusion of its work, the Commission reported to President Sarkozy that "the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people's well-being," and it provided a detailed set of socio-economic reflections and analyses to support this (and other) conclusions.

The Stiglitz Commission was not the first important effort of its kind. Other efforts preceded it, and others have followed it (and will follow it). But the Stiglitz Commission can be seen as a major milestone in the story of the New Economics — and potentially as a turning point in the history of national development processes, including how a nation's progress is assessed, and what goals are set for a nation's development. Future historians may look to this report as the moment when continuing economic growth at all costs ceased to be the dominant goal and guiding paradigm for nearly all statecraft.

Work related to the Stiglitz Commission's conclusions has been taken forward by agencies of the French government, and has continued more generally under the sponsorship of the Organization for Economic Co-operation and Development (the OECD) and its program on "The Progress of Societies." One can now track this growing field via an extremely useful and comprehensive website, managed by the OECD, called "Wikiprogress.org". Wikiprogress is a portal not only to current research on well-being and social progress generally, but to data, news reports, and networking with others who are professionally engaged on new approaches to progress accounting. It is an essential resource for anyone who wishes to follow the progress of alternative ways of thinking about progress. The OECD has also published a major new report on these issues,

directly linked to the recommendations of the Stiglitz Commission, called "How's Life? Measuring Well-Being."[28]

But before one dives into these detailed resources, it helps to first have a sense of the overall territory. Today, the New Economics has many names, linked to many streams of thought. All of these new ways of thinking about happiness, economy growth, social progress, and human well-being are growing in their importance and in their influence on mainstream economic and political thinking. More importantly, the streams are beginning to join themselves together. They are beginning to form something more like a river.

A Guided Tour of the Territory

The rest of this chapter provides the reader with a "guided tour" through some of the key formulations of alternatives to economic growth. Some of these involve a general and significant shift of emphasis to concepts like welfare, well-being, and happiness; others focus on very specific aspect of traditional growth economics, such as the environmental dimension, and seek to reformulate growth with this additional dimension in mind.

As with most new ideas, it is often just as important to understand who the messenger is, as it is to understand the message. For example, included in this review are three similar-but-distinct reformulations that are promoted by different clusters of organizations, think-tanks, and experts, as well as different divisions of the United Nations. "Green Growth," "Green Economy," and "Sustainable Development" are sometimes used interchangeably, but they are quite different concepts, shaped by quite different champion organizations within the international community.

Also included here is a short summary of the concept of Gross National Happiness (or Gross Domestic Happiness), the path-breaking approach championed by the tiny Himalayan kingdom of Bhutan, as well as more radical concepts such as De-Growth. All of these reformulations have more or less currency and recognition in the international arena, and there are many more formulations besides these that are not listed. For this report, we have included only those that appear to have caught the serious attention of economic policy-makers, at some significant level, somewhere in the world.

Most, but not all, of these reformulations are accompanied by proposals for alternative measures of socio-economic progress and human well-being. Sometimes, these measures or indicators are at the heart of the reformulation, and are indeed essential to defining the new concept or understanding it as a framework — much as understanding the GDP is now essential for understanding the framework (and paradigm) of Growth as Usual.

We present short descriptions of each "stream" in this new economic landscape, including where it comes from, and what arguments have been raised in support or in criticism. We also present, where possible, the indicators associated with these new concepts. This chapter is intended to help the reader navigate through this emerging landscape of concepts, methods, and measurements that are seeking to replace Growth as Usual with something more suited to life on a small planet.

Green Growth

Green Growth

Green Growth is a concept conceived by the consultancy McKinsey in connection with its climate change practice, but also championed by the United Nations, particularly in Asia, as a follow-up implementation strategy linked to the 2002 World Summit on Sustainable Development (Johannesburg) and the resulting "Plan of Implementation." Green Growth has its center of intellectual gravity in Korea, which hosts the Global Green Growth Institute (GGGI). The board of the GGGI also reflects a "who's who" of economic thinkers, including Nicholas Stern, Jeffrey Sachs, and Han Seung-soo (former prime

minster of Korea). The placement of the GGGI in South Korea reflects the seriousness with which that country has implemented a series of policy measures, especially after the 2008 financial crisis, in order to stimulate traditional economic growth in a "greener" (principally defined as "low-carbon") way.

The placement of the GGGI in Korea also reflects a broader, international interest — led by the United Nations — in helping the Asia and Pacific region to "leapfrog" over the industrialization patterns of the West, and avoid the trap of "growing first, cleaning up later." Many countries in the Asia and Pacific region see a pressing need to continue their economic growth in order to alleviate poverty and to achieve social progress. However, they are also already experiencing increased environmental degradation, diminishing natural resources, health problems, and the impacts of climate change. They increasingly have recognized the need for a different approach to support the export-driven economic activities of the region, and "Green Growth" has emerged as the preferred approach at the top levels of government.

A variety of UN-sponsored programs are working to make Green Growth — and its close cousin "Green Economy" (more below) — the leading economic development strategy throughout the Asia-Pacific region, and indeed the world. The OECD also promotes Green Growth, and has its own Green Growth strategy. Green Growth is principally a "top-down" approach, driven by government initiatives; it does not as yet include significant community-based or multi-stakeholder engagement processes, as is more typical of Sustainable Development.

For more information:

www.greengrowth.org
The UN's main portal on this topic.

http://gggi.org
The Global Green Growth Institute

Green Growth can also be criticized for being "green" in relatively limited ways, and it often comes under critique by environmentalists, as well as by anti-growth activists, for whom "De-Growth" is the preferred framework (see below). Green Growth's ultimate goal is still growth, sometimes at the expense of existing ecosystems. But it has emerged as a serious and very mainstream alternative to Growth as Usual with both environmental and social dimensions. The UN's Green Growth programs have emphasized a Sustainable Livelihoods Approach (SLA), a rights-based concept that recognizes the poor as a key stakeholder in the development process. Green Growth encourages the use of participatory assessments, which identify the main constraints, opportunities and concerns faced by the poor and to include them into the policy planning and implementation cycle. This supports vulnerable communities by providing pro-poor social services and by creating an enabling environment for sustainable development.[29]

Green Economy

"Green Economy" is also a United Nations initiative, but it was introduced and championed primarily by the United Nations Environment Program (UNEP), while Green Growth was more explicitly promoted by the UN's Economic and Social Commission for Asian and the Pacific (ESCAP). Achim Steiner, head of UNEP, describes the Green Economy Initiative as being aimed at neutralizing the argument that sustainability can only be achieved at the cost of economic development, and at challenging the myth that the green economy is a futuristic concept. UNEP championed the idea of "green stimulus packages", in the wake of the 2008 financial crisis, and identified specific areas where large-scale public investment could kick-start a "green economy," by redirecting $1.3 trillion a year from industries that overuse resources to 10 greener areas ranging from sustainable forestry to retrofitting buildings. The investment — about 2 percent of world economic output — would help cut greenhouse gases and avoid price shocks

associated with a dependence on fossil fuels and other commodities. (South Korea continues to be the foremost example of this policy option in practice, having invested 80% of its 2008 financial stimulus package, or USD 30 billion, in low-carbon development. South Korea's example is held up under the banners of both Green Growth and Green Economy.)

As of 2011, UNEP now provides a variety of services associated with the Green Economy, and essential works as a consulting and research organization in this regard, helping countries to frame strategy and policy and providing them with model-based analyses of the impact of Green Economy investments. The Green Economy has also been named as one of just two major themes proposed for discussion at the "Rio+20" meetings in 2012 (formally, the World Conference on Sustainable Development). Rio+20 is a 20-years-later follow up to the Earth Summit meeting of 1992 in Rio de Janeiro. At the Rio+20 conference, Green Economy could be embraced as a central strategy among many or even most governments, as well as many NGOs, for moving forward on sustainable development. However, the global politics of sustainable development are notoriously challenging. Chances for a binding or even a voluntary agreement on this topic — as opposed to a lesser statement or declaration — are currently not deemed to be high.

In promoting the Green Economy concept, UNEP has partnered with think tanks and commercial actors (such as Deutsche Bank), lending international credibility to its economic analyses. In 2011, it released a major study, "The Green Economy Report," which brings current concepts, case studies, and analyses together in one document.[30] And in December 2011, the UN's Environment Management Group — which included the heads of forty UN agencies — published a report intending to clarify the use of Green Economy and other related terms ("Working Towards a Balanced and Inclusive Green Economy: A United Nations System-wide Perspective"). Since it is over 200 pages long, however, this report is challenging reading for ordinary users of terms like "Green Economy" and "Green Growth", which remain somewhat difficult to differentiate in common practice.

For more information:

www.unep.org/greeneconomy
UNEP's main portal on this topic, includes the Green Economy Report

www.greeneconomycoalition.org
The Green Economy Coalition is a civil society platform organization that promotes a stronger vision of what "Green" means

INFO

Sustainable Development

UN Department of Economic and Social Affairs
Division for Sustainable Development

While both "Green Growth" and "Green Economy" can be seen as expressions or subsets of "Sustainable Development," or even as products of the Sustainable Development movement, many people make a strong distinction between these terms.

Sustainable Development has traditionally been defined as it was when first introduced by the UN-mandated 1987 World Commission on Environment and Development (the so-called Brundtland Commission): "[development that] meets the needs of the present without compromising the ability of future generations to meet their own needs." In the quarter-century since its introduction, the concept has become a cornerstone of international negotiation and agreement-making on a wide variety of social, environmental, and economic topics, ranging from climate change (Framework Convention on Climate Change) to biodiversity (Convention on Biodiversity) to social goals such as gender equity or improved infant survival rates (Millennium Development Goals).

However, unlike Green Growth or Green Economy,

Sustainable Development ("SD") has no clearly articulated economic philosophy or strategy. Critics of SD say that the concept attempts to be all things to all people, and to solve all problems. Mainstream and environmentally-oriented critics of Green Growth, on the other hand, are likely to gravitate to SD as an alternative — albeit a weakly articulated one — to Growth as Usual.

It is perhaps an indicator of SD's diffuse status that prior to 2011, the United Nations had no central portal of information on Sustainable Development (as it does for both Green Growth and Green Economy). That lack should be filled with the opening of the new United Nations Office for Sustainable Development (UNOSD), in late 2011. UNOSD will also be based in South Korea, making that country an extraordinary "center of gravity" for all three of these concepts, at least in UN terms.

The establishment of UNOSD reflects the extent to which SD has emerged as an overall planning concept, supported by a broad body of knowledge on both specific topics (such as energy, buildings, and food) and processes (such as stakeholder consultation, integrative planning, and indicator development). Most nations, for example, produce Sustainable Development strategies or plans. However, these plans usually occupy a weak position relative to national economic decision-making.

As an integrative planning and visioning concept, SD does stand in contrast to traditional economic growth policy, which assumes that unrestricted freedom in the expansion of capital, infrastructure, technology and consumption will create, by automatic and market-driven means, a preferred future. Sustainable Development, as understood and practiced by most professionals today, implicitly acknowledges that growth must at least be channeled and directed, and in some cases restricted, if the "ability of future generations to meet their own needs" is not to be jeopardized. But most national Sustainable Development planning processes do not identify any specific limits or boundaries around growth per se — which suggests that most do not have a clear understanding of the word "sustainable."[31]

For more information:
www.un.org/esa/dsd/
The UN's Division for Sustainable Development

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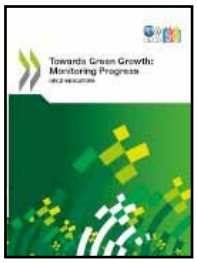
Indicators of Green Growth, Green Economy, and Sustainable Development

While there has been extensive work on the field of Sustainable Development Indicators, over a period of twenty years, there is still no single, definitive, agreed-upon way of measuring social progress in terms of this concept.

The best short summary of the status in the field of Sustainable Development Indicators (and its cousins Green Growth and Green Economy) might be this: "Research continues." This lack of arrival at a conclusive proposal on how to replace the GDP is one reason why simpler-to-grasp alternatives — such as Bhutan's Gross National Happiness Indicator — have proven so attractive.

For ***Green Growth***, the centerpoint of research appears to be the OECD, which recently published a report called "Towards Green Growth: Monitoring Progress." This is a relatively technical report that digs into the relationships between material inputs to an economy, efficient production, and outputs in the form of material prosperity. The report catalogues a host of relevant measurements to draw on — with topics ranging from natural resource use to policy responses — and comprehensively summarizes the state of the field, from the perspective of OECD's member governments. The result is very useful for a professional audience, but hard going for the rest of the world.



For ***Green Economy,*** there is even less clarity or agreement on how to go about measuring progress. UNEP's published materials include a significant amount of quantitative information, but for indicators of whether an economy has succeeded in becoming "green," UNEP points readers back to the OECD — which focuses on mapping the wide array of technical options available, as noted above — or to the World Bank (see the section on "Genuine Savings" below).

For ***Sustainable Development***, the picture is a bit brighter and clearer, but still unfinished — and, for the non-specialist, still somewhat confusing. The United Nations Department of Economic and Social Affairs has published a set of guidance documents for use at the national level. It tells countries what they should think about measuring (96 indicators, 50 of which are identified as "core"), and provides methodology sheets for how to do it. Countries can then upload their finished National Reports on sustainable development — with or without indicators — at the UN website.[32]

Genuine Progress, Genuine Savings, and the Green GDP

Some efforts to reframe growth have focused specifically on indicators and their power to shape policy and decision-making. The acknowledged problems in the Gross Domestic Product (GDP) have given rise to a number of different efforts to redefine or reinvent that indicator, and thereby reframe the overall goal of economic growth. Three of these efforts have risen to the level of being formally adopted (or at least used and referenced) by governmental entities.

Genuine Progress, as a concept in economics, grew out of the work of economist Herman Daly and his colleague John Cobb, and their efforts to redefine economic measurement in a more integrative way. Daly and Cobb introduced the Index of Social and Economic Welfare (ISEW) as a correction to the Gross Domestic Product with a 1990 book entitled For the Common Good. During the 1990s and 2000s, researchers adapted their original methodologies, sometimes working in independent think-tanks, and sometimes working in connection with governments. The phrase ISEW was largely replaced by the phrase "Genuine Progress Indicator" (GPI) after this new indicator was publicized by a cover story in the US magazine Atlantic Monthly in 1995 ("If the GDP is Up, Why is America Down?").[33]

Calculations of Genuine Progress are an attempt to improve significantly on the GDP by subtracting social and environmental costs (many of which actually cause the GDP to rise), and adding the value of some non-monetized economic activity (such as volunteer work). Only a few government entities have formally adopted latest-generation GPI-style measurements, most recently and prominently the Canadian city of Edmonton, and the US State of Maryland (see Box). GPIs had previously been calculated for the US States of Utah, Ohio, Minnesota, and Vermont. But variations on the same theme are emerging today in other countries as well.

A Canadian think-tank has recently introduced a new, stripped-down variant, minus the purely environmental factors, that it calls the Index of Economic Well-Being (IEWB). This methodology focuses on the distinction between consumption and capital, and it looks at issues such as income equity and economic security in old age. In September, 2011, it released a report that includes calculations of the new IEWB index for all the OECD nations.[34]

In China, economist Niu Wenyuan recently introduced a new measure called the "GDP Quality Index." Niu Wenyuan had previously tried to introduce a "Green GDP" to China, but had met stiff resistance (see below). The new measure,

which is more like the GPI, combines five elements: the energy intensity per unit of GDP, income gaps between rich and poor, waste per unit of GDP, quality of life (life expectancy and other human development indicators), and a composite measure of management quality (covering public infrastructure, the size of public bureaucracy, and other measures). (See "China's green economist stirring a shift away from GDP," *The Guardian,* 16 September 2011.)

For more information:

On Maryland's GPI: *www.green.maryland.gov/mdgpi*

For the new report on the Index of Economic Well-Being for the OECD nations: *www.csls.ca/iwb/oecd.asp*

For an overview of the GPI and related uses in the US and Canadian context: *www.newdream.org/programs/redefining-the-dream/rethinking-growth*

INFO

It must be underscored that none of these efforts has resulted in anything like a replacement of traditional GDP measurements with GPI-style measures. However, the serious debate around the GPI and its variants has helped to establish the consensus around the weakness of the GDP as a proxy measure of overall social and economic welfare.

Some of the criticisms directed at the GPI can also help to explain why the GDP has retained its central position in economic decision-making for so long. Measures of Genuine Progress involve selecting out which topics should be treated as "costs" and which as "benefits," and then estimating dollar values for those costs or benefits that are not monetized. Critics claim that these choices are matters of politics and ideology, which makes the GPI vulnerable to statistical manipulation. For example, is cutting down a forest a "cost" or a "benefit" to society? It may be seen as a cost from an environmentalist perspective, while being seen as a benefit to those who use the lumber and paper. The traditional GDP, in contrast, makes no such distinctions — it simply converts the felled forest into money, at whatever the current price is on the timber market — and so the GDP requires no additional ethical or values-based decisions about how to treat forests in accounting terms. (Those decisions were made when the GDP was first designed.)

Maryland Leads the Way on the GPI

The State of Maryland, USA, has emerged as the most serious user and champion of the Geniune Progress Indicator (GPI) methodology, led by its current Governor, Martin O'Malley. In September 2011, Governor O'Malley released the third annual update of the GPI, noting that the importance of the indicator is growing over time. "With three years of data now compiled, we are looking at the best ways to incorporate these values into decision-making and we encourage our local partners to do so as well," he noted.

Maryland's GPI is calculated using an array of 26 indicators, divided into economic, social, and environmental factors. When compared to the Gross State Product (a State-level version of the GDP), Maryland's GPI shows overall well-being in the state lagging behind traditional economic growth — and actually declining one year (2009), despite a sharp rise in the traditional GSP/GDP measure.

The Maryland GPI is sponsored by the state government, and promoted by its governor. It has no formal legislative role in policy making at this stage, but insiders report that the data have been very influential in helping to shape policy discussions on a wide variety of issues dealt with by state government. "The greatest impact is simply that it exists," said one person familiar with the program.[35]

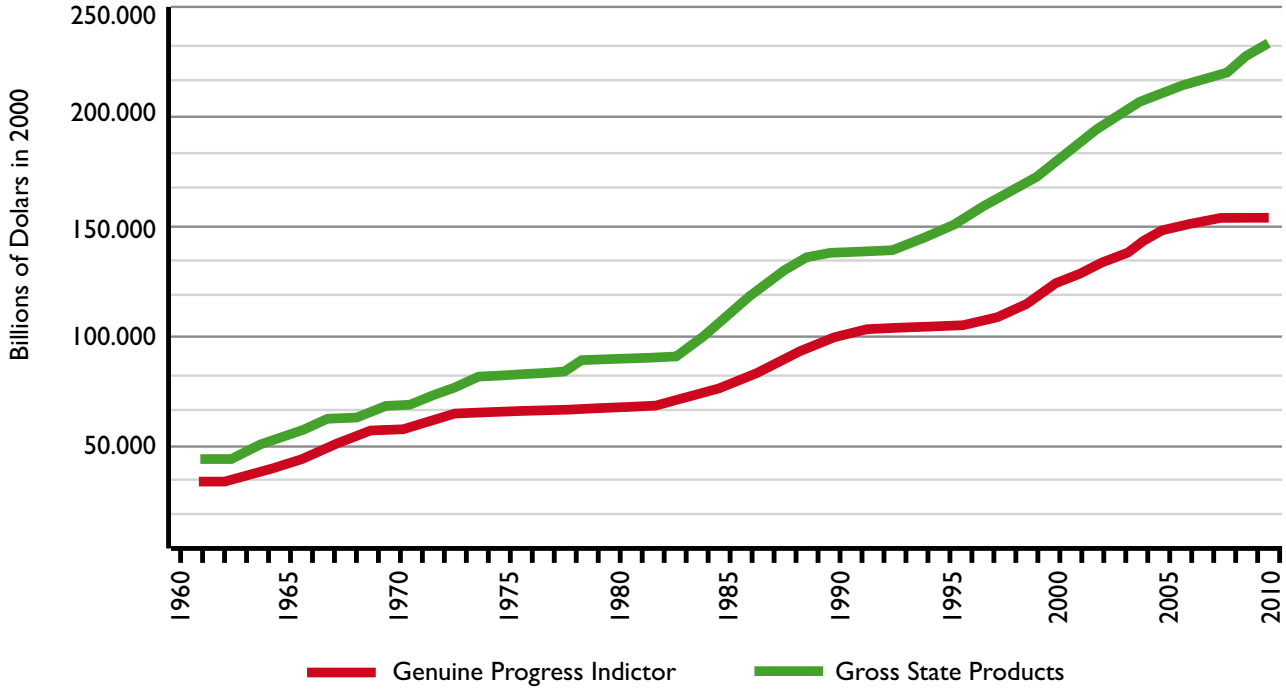
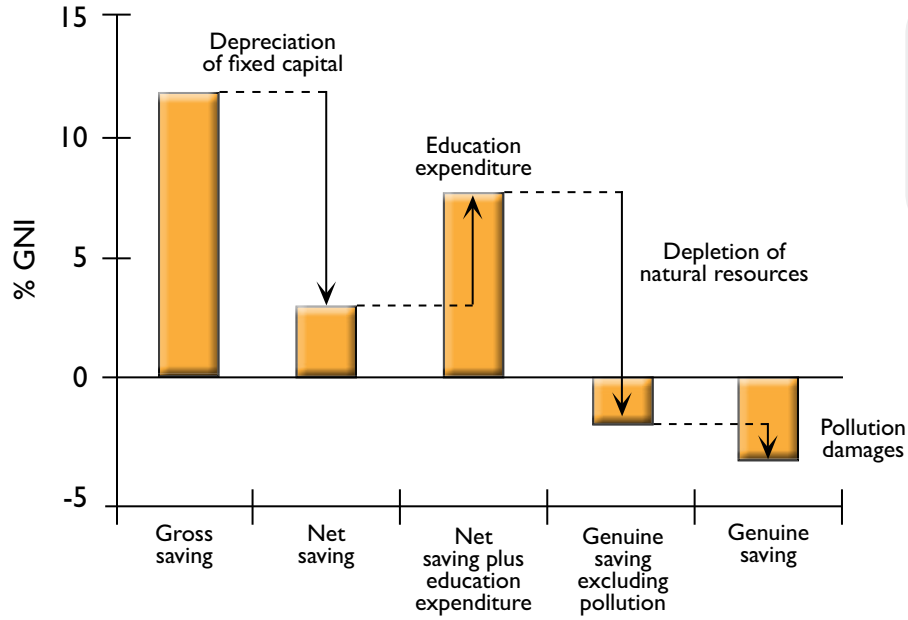


Figure 2: The State of Maryland's Genuine Progress Indicator for 2010. Source: State of Maryland

Genuine Savings, in contrast to the GPI, is a more traditional economic indicator — the national "net savings" rate — that has been slightly modified in order to integrate the values of natural and human capital. Data on national "Genuine Savings" rates have been calculated and published by the World Bank, where they have been used to demonstrate the extent to which traditional economic growth paths, which results in environmental degradation and resource depletion, may actually be rendering poorer nations more impoverished.[36]



For more information:
http://bit.ly/genuinesaving

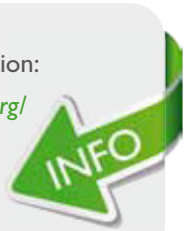
Figure 3: A schematic of the structure of "Genuine Savings". Source: World Bank

Finally, the ***Green GDP*** is the least innovative in this related set of measures and frameworks. A Green GDP is a conventional Gross Domestic Product, adjusted for the environmental costs of the economic activities that it measures. Green GDPs have been adopted by some governments, most notably China (which produced but then suppressed Green GDP data in 2005-2007[37]) and India (which plans to begin publishing Green GDP data in 2015). China's suppression of the Green GDP was related to the political impact that the data were expected to cause, since it showed economic growth to be far lower than a "normal" GDP would measure it to be, especially in some provinces.

The idea for a Green GDP is not new. The online encyclopedia *Wikipedia* recounts that in 1993 the Bureau of Economic Analysis, the official bookkeeper of the US economy, began responding to concerns that the GDP was in need of reform. The agency began working on a green accounting system called Integrated Environmental and Economic Accounts. The initial results, released in 1994, showed that GDP numbers were overstating the impact of mining companies to the nation's economic wealth. Mining companies did not like those results, and in 1995 Alan B. Mollohan, a Democratic House Representative from West Virginia's coal country, sponsored an amendment to the 1995 Appropriations Bill that stopped the Bureau of Economic Analysis from working on revising the GDP. In the US context, the GDP remains essentially "frozen," by act of Congress.[38]

Critics of the Green GDP say that it is too hard to calculate accurately, or even that it is impossible to calculate. Since many natural resources are often used for free (including water), they do not have prices or monetary values attached to them. As a result, there is no way to know how to monetize them, apart from crude estimates, for inclusion in GDP-type calculations.[39]

For more information:
http://en.wikipedia.org/wiki/Green_gross_domestic_product



Gross National Happiness

The phrase "Gross National Happiness" was first introduced by Bhutan's King Jigme Singye Wangchuck, in 1972. Much later, the concept was developed into a survey instrument by researchers at the Center for Bhutan Studies to gauge the well-being of the Bhutanese people. In recent years, Bhutan's increasingly sophisticated survey techniques have been studied, adopted and adapted by other governmental entities in many different parts of the world, and the practice of measuring "Gross National Happiness" has become a significant focus of discussion and debate.

While the idea of "measuring happiness" sounds odd to many people at first, the practice of surveying people to determine their perceived well-being, life satisfaction, and self-reported happiness has a long history. Also in recent years, the techniques for measuring, analyzing, and interpreting such survey result have been strengthened by advances in both brain science and statistics, which have increased levels of confidence in the reliability of survey data. While the debates continue, a consensus has emerged that the science of measuring and assessing human happiness is now sufficiently well developed to be relevant to national progress assessment and policy making in countries as diverse as Bhutan, China, France, and the United Kingdom.

As the pioneer in measuring Gross National Happiness, Bhutan's government (through the Center for Bhutan Studies) has been refining its approach for over a decade, developing an array of survey instruments that cover everything from subjectively reported emotional states, to personal time use, to familiarity with the local ecosystem. A sampling of the indicators selected by the Bhutanese provides a snapshot of the national culture, as well as a working definition of what "happiness" means in the official Bhutanese context. The indicators include:

- Frequency of feeling selfishness
- Frequency of feeling of generosity
- Occurrence of suicidal thought
- Knowledge of the names of plant and animal species ("Do you know the names of plants and animals in your local surrounding?")
- Level of education, literacy rate, historical literacy
- Frequency of playing traditional games
- Number of days in a year attending community festivals
- Household income
- Income sufficiency to meet everyday needs
- Room ratio (number of person per room)
- Purchase of second hand clothes
- Sleep hours
- Sense of trust in neighbors
- Labor exchange with community members
- "Members of your family really care about each other"
- Trust in media

Tradition, psychology, health, ecological concerns, essential relationships, and modern technology (such as media) all have a place in the Bhutanese concept of Gross National Happiness — and their use is not merely theoretical. Unlike other frameworks and indicators profiled here, Bhutan's GNH is also policy-relevant. Recent visitors to Bhutan report that extensive, month-long community consultations are held in connection with major development decisions, such as the building of a new highway. Community members are asked to reflect on how the new development might impact the GNH indicators, and these reflections are seriously considered in making final decisions on policy and investment.

In the current economic climate, with ongoing serious disruptions in Western economies and currency systems, and political leaders scrambling to "put growth back on track," it may be difficult to imagine a switch from GDP to GNH occurring anytime soon. Nonetheless, changes under way now point to a not-too-distant future where national happiness indices may begin to compete seriously with economic growth measures for the attention of ordinary citizens. To illustrate:

- The government of the United Kingdom will publish its first national happiness index in 2012.
- The German parliament has formed a formal committee to explore doing the same, and is due to report its findings in the next one or two years.
- Austria already publishes official statistics on national happiness and well-being, in connection with its sustainable development programs.
- And the French government has produced its own official guidelines for a national happiness index that seems, at first glance, similar to the Bhutanese model.

The OECD further reports (in "How's Life? Measuring Well-Being", October 2011[40]) that similar efforts — varying in scale from national consultation processes to more statistical exercises — are going on in Norway, Australia, Italy, Spain, Slovenia, Japan, and several other countries. It is important to note that each of these initiatives is tailored to the specifics of each nation, and to the unique way that each culture defines happiness and well-being. For example, the questions asked by the French are very different from those asked by the Bhutanese, and reportedly include the following: "Do you own at least two pairs of shoes? Can you afford to eat meat every other day? Is your home difficult to heat, damp or too small to have friends over to visit? Do you casually bump into friends?

Are you in touch with your family? Do you have unbearably noisy neighbours?"[41]

While it seems counter-intuitive for governments to be focusing on measuring happiness in the midst of tough economic times, there is a perceptible political logic operating here as well. The shift to happiness and away from growth marks a "change in the scorecard" that potentially can serve the political interests of sitting governments. Delivering traditional economic growth has become demonstrably more difficult for countries like France, Germany, or Japan, with their aging demographics and declining economic power in the face of the rise of China and India. Happiness, well-being, and quality of life, as noted earlier in this report, are not strongly coupled to economic growth and income once a country has achieved a minimum level of material economic comfort. Political leaders may be realizing that a shift of focus from GDP-measured growth to "Gross National Happiness" may help them to distract voters from these tougher economic circumstances. People's incomes may not be rising as they were before; but if it can be demonstrated to them that their happiness is unaffected — or perhaps even enhanced by the slower economic pace — then the political leadership can still claim some "measure of success."

Political considerations aside, there is no doubt that "happiness," as a potential new framework for evaluating the well-being of a nation, has become popular. It remains to be seen, however, whether other nations will also follow Bhutan in putting their new happiness indices to work as instruments of citizen consultation and policy making.[42]

For more information:
www.bhutanstudies.org.bt
The Center for Bhutan Studies

De-Growth

"De-Growth" is perhaps the most radical notion covered in this survey of alternatives to the paradigm of economic growth, since it means nothing less than growth's opposite: shrinkage. The "De-Growth Movement" consists largely of a network of academic researchers and economic activists who study and promote the idea that aiming for smaller-scale economies will generate greater human well-being, while reducing the pressure on natural resources and ecosystems. The concept rose to international attention with the publication of a report, by economist Tim Jackson, issued in March 2009 by the United Kingdom's official Sustainable Development Commission. Titled "Prosperity without Growth?," Prof. Jackson's report was remarkable in being the first such treatment of the topic issued by an official national government body. It was later republished as a book — without the question mark in the title. This book, *Prosperity without Growth,* has become the most widely read current introduction to De-Growth and an essential reference on the topic.

Cover of the original report of the UK Sustainable Development Commission (2009)

Jackson's argument can be summarized — as he summarizes it himself — in three short statements:

1. Growth is unsustainable. Jackson accepts the decades of scientific research that establish the "Limits to Growth" and the "Planetary Boundaries" within which we humans must live. Given these facts, endless expansion in resource extraction, production, consumption, and waste is patently impossible.

2. De-Growth is unstable. Here, Jackson builds a bridge between traditional economic thinking, and proponents of the alternative. He explains the extent to which national economic systems are completely dependent, for their core stability, on continuous growth. "Recessions" and "depressions" bring with them serious social unrest and political

instability — which governments are supposed to prevent. This systems perspective helps to explain the intensity with which governments strive, at all costs, to keep growth going, despite all the accumulated evidence about growth's negative environmental consequences, and growth's inability to deliver ever-increasing well-being.

3. Decoupling won't work. "Decoupling" means maintaining continued monetary economic growth (increases in GDP), while reducing resource use, waste, and pollution (which ordinarily rise with growth in a "coupled" fashion). First introduced as a goal of policy by the Dutch government in the early 1990s, decoupling involves increasing the efficiency with which the economy turns resources into things of value, as measured by indicators such as "carbon intensity" (how much CO_2 is emitted per dollar of GDP produced by an economy). Jackson notes that to date, decoupling's gains have been marginal when compared to the absolute growth in emissions like CO_2. These efficiency-based approaches to reducing overall impact on planetary ecosystems are not realistic, according to this analysis. There is no way that economies can decouple — that is, separate the process of growth from the process of ecosystem destruction — fast enough to turn the tide on problems like global warming.

Jackson's work essentially leaves the world with a question, which he articulates as "What is the path forward?" But he and other proponents of De-Growth have also created policy proposals and even alternative economic models that attempt to demonstrate a different, indeed transformative, economic pathway. Jackson and Canadian economist Peter Victor, author of Managing without Growth and one of Jackson's frequent collaborators, published a newspaper column in September 2011[43] that summarizes key elements of the alternative economic pathway that the De-Growth movement proposes to the world, from "braver policy-making" to "a renewed sense of shared prosperity." More specifically, their vision of transformative change includes:

- ***A "radical overhaul" of the capital investment markets,*** with the aim of dramatically reducing speculation in commodities like food futures or financial derivatives like hedge funds, and increasing investments in low-carbon technology, transportation, health care, education, and efficient housing and transportation.
- ***Ending "unrestrained profiteering at the expense of the customer and taxpayer,"*** presumably through tighter regulation of business behavior and encouragement of new corporate forms — such as the "B-Corporation," or "Benefit Corporation," which involves setting stronger governance rules in place to ensure that a corporation acts to benefit society in social and environment terms as well as economically.
- ***Dramatic cultural changes*** to reduce the emphasis on consumerism and materialism, and increase a general cultural swing in the direction of "good nutrition, decent homes, good quality services, stable communities, decent, secure employment and healthy environments."

These are revolutionary ideas that reflect a strongly idealistic and communitarian set of values, and De-Growth conferences, studies, and texts are generally focused on (1) searching for evidence that such changes are under way, and/or (2) promoting arguments and strategies for making such changes (including abandonment of the GDP in favor of other indicators of well-being). But while De-Growth can be seen as sitting at one end of the spectrum of alternative New Economic ideas, and as a kind of radical departure from traditional growth economics, it is important to note that there are differences of view within the De-Growth movement itself. Some advocate a fairly aggressive and proactive approach — one should attempt to make De-Growth happen — while others believe that De-Growth is simply inevitable, given the constraints placed on traditional growth by a depleted resource base. For this second group,

the work of "De-Growth Economics" is not about promoting change; it is about preparing for an unavoidable descent (as reflected in the title of Peter Victor's 2008 book, *Managing without Growth*[44]), and about creating more resilient social structures or self-sustaining communities (as reflected in the Transition Town movement cited earlier).

For more information:

http://DeGrowth.net
Portal for research, seminars, etc. on the topic of De-Growth

www.sd-commission.org.uk/publications.php?id=914
Tim Jackson's original 2009 report for the UK Sustainable Development Commission

While "De-Growth" has recently escaped from the absolute outlands of economic thinking, owing in no small part to Tim Jackson's breakthrough report (which carried the legitimacy of a UK government commission), it remains a marginal concept whose protagonists are not generally in positions of decision-making authority. De-Growth proponents tend to reject half-way concepts such as "Green Economy" and "Sustainable Development," seeing these as just Growth as Usual in somewhat greener clothing. The absolutist approach of De-Growth may be justified by the movement's interpretations of the facts on resource use and waste; but in practice, this approach means (of course) that De-Growth proposals are not seriously entertained by national governments. Still, by staking out the radical end of the New Economics spectrum in a clear and uncompromising way, De-Growth also serves the function of making other alternative ideas — such as Gross National Happiness, or the recently proposed "Tobin Tax" on financial transactions in the European Union — appear much more acceptable to the mainstream of economic opinion.[45]

A Spectrum of Alternatives

This summary review of the different ways that the paradigm of Growth as Usual has been reformulated — or, in the case of De-Growth, completely rejected in favor of a more radical, smaller-scale, alternative vision for the global economy — provides a reasonable snapshot of "the state of the art." However, it is in many ways incomplete.

Not included here, for example, are several innovative indicators that attempt to shift emphasis away from growth for its own sake, and onto a broader range of issues. These indicators include the OECD's new "Your Better Life Index,"[46] which allows the user to view OECD national data through a variety of filters (selected by the user) that are related to overall progress and well-being; or the New Economics Foundation's "Happy Planet Index,"[47] which drew headlines around the world on its initial release in 2007. The "HPI" combines life satisfaction, life expectancy, and the Ecological Footprint (a measure of the total human pressure on ecosystems) to produce an indicator that purports to show which countries are able to provide the most happiness for their people, while producing the smallest ecological impact.

Indicators like the HPI, the Ecological Footprint, or Your Better Life Index (and there are others as well) certainly contribute to the general rise of interest in alternatives to growth, and specifically in New Economic frameworks and measurements. They help to chip away at the foundations of the growth paradigm. But they do not propose an alternative to replace it, in fundamentally economic terms.

The policy-relevant proposals of New Economics can be seen as spanning a spectrum that stretches from fairly mainstream (Green Growth) to fairly radical (De-Growth), when compared to the dominant growth paradigm (Growth as Usual). In practice, the dividing lines between these various new concepts can often be quite blurry. Some agencies or political actors may use a phrase like Green Growth, for example, not because they

embrace a specific definition of that term, but simply because they believe it will be more politically acceptable than Sustainable Development. Others, however, have strong commitments to specific formulations of one concept or another, and tensions can emerge between different "camps" on pure conceptual and definitional grounds. This conceptual spectrum is lop-sided, as the following graphic illustrates.

On the bottom half of the graphic are most of the indicators profiled in this report, also arranged according to their perception as "mainstream" or "alternative," relative to economic growth. (Note that the new Index of Economic Well-Being, which is not included in the illustration, would be placed in between the Green GDP and Genuine Savings. The new Chinese GDP Quality Index would likely fall in between Genuine Savings and

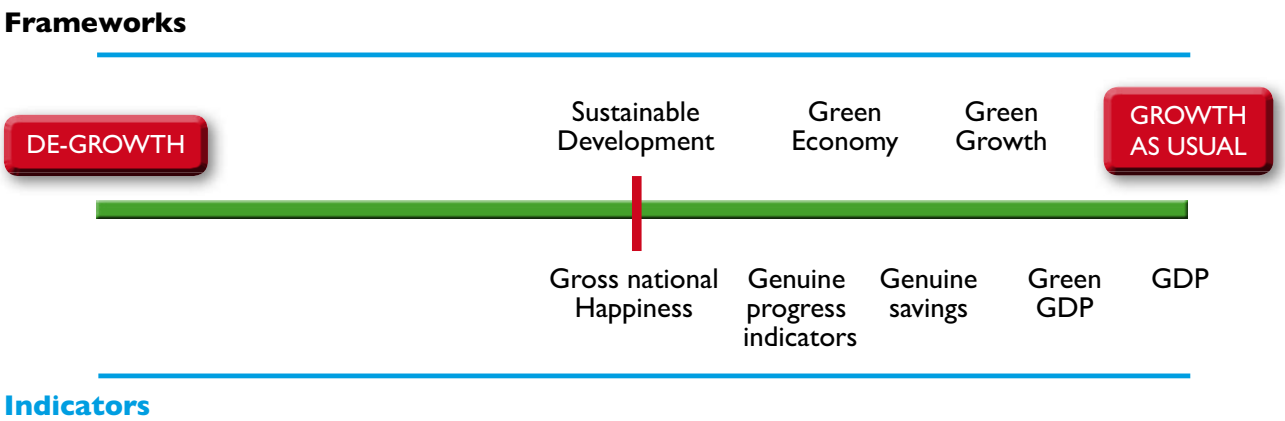


Figure 4: The spectrum of alternative economic frameworks and indicators, in conceptual terms, from radical ("De-Growth") to mainstream ("Growth as Usual"). In practice, the difference between these concepts and their definitions can often be quite blurry. Analysis by AtKisson Sustainability.

On the right we find Growth as Usual, as measured by the Gross Domestic Product. On the left is De-Growth — one of whose primary measuring sticks is also, ironically, the GDP. (De-Growth is generally occurring when the GDP goes down, but the De-Growth concept also refers to absolute reductions in resource use and consumption.) On the top half of the graphic are the concepts that have been described here as "frameworks" — that is, integrated sets of definitions and concepts, often involving specific goals as well. Green Growth, Green Economy, Sustainable Development, and De-Growth all involve a set of assumptions about how economies should work. All are alternatives to the framework of Growth as Usual, which has its own set of core concepts and assumptions. The farther away these frameworks are from the far-right end of the spectrum, in this illustration, the more they are seen as "alternative" relative to mainstream economic opinion.

the Genuine Progress Indicator. These are not included in the diagram because they have not yet been adopted as policy tools.) The indicators do not line up perfectly with the frameworks above them in this illustration, because the indicators are sometimes closer, in terms of their construction, to mainstream than the frameworks with which they are most closely associated. For example, the Green GDP is essentially the normal GDP, minus certain environmental costs. Green Growth, on the other hand, involves a more proactive set of choices regarding capital investment and policy incentives, in favor of certain technologies that are seen as "greener." This active preference for different investment and policy priorities places Green Growth just a bit farther away from pure Growth as Usual thinking than the Green GDP, because Green GDP is simply a passive measure of economic performance (green or otherwise).

A key message of this illustration is that *none of the frameworks or indicators profiled in this report are so far very away from Growth as Usual* — with the obvious exception of De-Growth. Green Economy is arguably a bit farther away from mainstream than Green Growth, because the actors promoting Green Economy tend to give somewhat higher priority to ecosystem and human health. Sustainable Development ("SD") is pictured here as being in the middle, because it is often perceived as being farther away from traditional Growth as Usual, owing to its emphasis on social equity and the long-term conservation of natural resources (even if these benefits might come at the cost of some economic growth). In practice, however, SD plans and strategies can stretch quite comfortably from very growth-friendly policies — sometimes to an extent that makes them even more mainstream than Green Growth — all the way to somewhat anti-growth policies.

On the indicator side, Green GDP involves only a small reform of traditional economic growth measures. Genuine Savings (also known as "Adjusted Net Savings") marks, however, a larger departure from the GDP norm. Genuine Savings focuses on changes to national wealth and capital, rather than income, and adjusts traditional national wealth figures by adding social investments and subtracting losses in the total value of natural resource, among other factors. But Genuine Savings still "presents resource and environmental issues within a framework that finance and development planning ministries can understand" — that is, a monetized value, typically expressed in US dollars.

The Genuine Progress Indicator (GPI) also presents a monetized dollar value, but its scope is much more extensive than the Genuine Savings Indicator (GSI) and includes a wider array of social and environmental factors. However, both the GPI and the GSI include traditional economic data that, at bottom, reflect economic growth. For example, while the GPI can be reduced or even turned negative by the counter-balancing effects of the social and environmental costs of growth, *it is driven upwards by increases in personal consumption.* In other words, the GPI — despite being invented as a way to criticize the obsession with growth in mainstream economics — still frames growth in personal consumption as positive and desirable.

In the same way, Genuine Savings rates tend to respond positively — that is, go up — when GDP goes up and contributes to a nation's overall wealth. Draw-downs in the value of natural resources or under-investment in social benefits may counter-balance the upward-pushing tendencies of traditional economic growth in the Genuine Savings formula, but this does not change the fact that growth is still framed as positive in the context of the Genuine Savings Index.

In sum, all of the indicators presented, with the exception of Gross National Happiness, include economic growth as a *positive* attribute. They do represent reforms on the GDP, but they do not attempt a replacement of its core logic: growth is good, or at least conditionally good.

Gross National Happiness (GNH), on the other hand, represents a complete break with the traditional growth paradigm, both in conceptual and in methodological terms. GNH surveys do not appear to include any questions whose answers are driven by economic growth *per se*. Traditional monetized measures such as consumption expenditures are not included in the GNH, nor in most other happiness and well-being measures. Even in the economically oriented examples from the proposed French guidelines quoted above — "Do you own at least two pairs of shoes? Can you afford to eat meat every other day?" — the emphasis is on *sufficiency*, not growth.

The GNH cannot, however, be characterized as anti-growth, either (which is why it is placed exactly in the middle of this spectrum). The GNH and the GDP measure completely different things, with the GNH coming much closer to measuring the actual outcome that most people hope will be produced by economic growth: a good quality of life, for as many people as possible. In a sense, the GNH — together with the many related measures of national happiness and well-being that are now

in development around the world — represents the only true candidate for replacing the GDP that is currently under serious consideration by the global community of policy makers.

Conclusion: A Landscape Still in Formation

This concludes our "guided tour" through contemporary alternative, but policy-relevant, frameworks to economic growth. As noted earlier, these are separate-but-related streams of thoughts whose proponents often strive to maintain that separateness. The distance of one's preferred framework from the established mainstream of opinion (Growth as Usual) has a tendency to create social clustering effects. Some champions of "Sustainable Development," for example, tend to regard the "Green Growth" movement with some suspicion or unease, and vice versa.

But it is also clear that all these separate steams — including De-Growth — do appear to be converging in some respects. There appears to be broad agreement, across the spectrum of these alternative frameworks, on four main points:

1. "Growth as Usual" is impossible in the long term. Growth may have produced many benefits to humanity (opinions differ on just how much benefit has been created), but it is also producing dangerous climatic change, ecosystem destruction, deeply problematic gaps between the rich and the poor, and other serious concerns, or even outright catastrophes. The planet is not big enough to support Growth as Usual for very much longer.

2. The GDP is an inadequate or even misleading indicator of progress. It needs to be at least reformed, and maybe even replaced, as the primary measuring stick by which political and social systems assess their success.

3. Alternatives are both necessary and possible. The world appears to be in "search mode," looking for the best mix of traditional economic thinking (e.g. the power of markets) and New Economic thinking (such as shifting emphasis from material consumption to non-material experience and human development). The emerging consensus is that this mix can be found; but there is no consensus yet that it has been found, in any definitive formulation.

4. Happiness and human well-being are the essential goals of any economic framework. While this is perhaps the most radical new idea to emerge from these different streams, there does seem to be a surprising amount of consensus about the centrality of happiness and well-being, across the traditional left-right spectrum of political ideology. If this perspective takes deeper root and becomes a true organizing principle for national economic policy-making, it will prove to be revolutionary.

For at least a century, "growth for its own sake" — meaning economic growth driven by a fundamental desire to become bigger and/or more powerful as nations — has been one of the most powerful guiding principles of global civilization. If this begins now to be replaced by the principle of "growth for the sake of human happiness," complemented by the principle of knowing "how much growth is enough," we may be witnessing the birth of a true transformation in the governance of human social and economic development.

Looking Ahead: The Political Economy of Growth in the Early 21st Century

For the first time in modern history, national governments are considering publicly the idea that maximizing human happiness, well-being, and quality of life is a more worthy goal than maximizing economic growth for its own sake. A few pioneering governments, such as Bhutan, are experimenting with measures of happiness and well-being as tools for citizen consultation and policy development. Others are exploring the publication of happiness and well-being indicators as complements to national economic reporting. Prominent institutions such as the OECD, which serves the forward-looking interests of the world's developed economies, have taken the lead in the area of research and development on these questions. As of 2011, the "alternatives to growth" no longer seem quite so "alternative." Some of them have decisively made the shift from think-tanks and academic journals into mainstream policy making.

However, these new entrants into the world's economic policy dialogue are very fresh on the scene, and it is far too early to declare that a transformation in economic thought and policy has occurred. Questioning growth — economic growth, population growth, growth in consumption of resources, growth in resulting political power — has been a highly polarizing and controversial activity for at least forty years, ever since the book *The Limits to Growth* first ignited a firestone of global debate (1972). There are powerful factors at work in the world that are highly resistant to a creeping revolution in how nations set their economic goals and assess their progress.

Some of these factors have been discussed already in Chapter 3. They include the vast body of existing economic theory, policy, and practice — with all of its institutional inertia and resistance to change — that is built around sustaining growth, together with the generally conservative mainstream of the economics profession itself. These factors also include cultural habits (such as consumerism) that have been built up over decades; cultural attitudes (such as the view that humans have an innate right to the free use of the entire Earth's resource base) that are the product of millennia; and even purely biological considerations issuing from our evolution. Humans, as the Nobel Prize-winning writer and sociologist Elias Canetti put it, have a built-in "desire to be MORE."

Any forecast of the New Economics' immediate future must take into consideration these fundamental starting conditions, together with a wide range of contemporary issues, trends, and power dynamics. At first glance, it might appear that the odds are stacked strongly against change; and yet, change is already happening.

The following is a short review of major factors, in political-economic terms, that are most likely to affect the "progress of alternative ideas about progress" in the next few years, and what that impact is likely to be. This chapter is a necessarily brisk waltz through a field of topics that, from the perspective of alternatives to the paradigm of economic growth, could well be landmines: any one of them has the power to stop the progress of these new ideas dead in their tracks, at least in certain countries. Other factors could accelerate the progress of the New Economics in less-than-predictable ways. Some factors "cut both ways,"

depending on who is doing the cutting.

The factors explored are:

- The global financial crisis
- Disaster and recovery
- Armed conflict
- Poverty alleviation
- Geopolitical power shifts
- Democracy movements
- The private sector
- Rio+20 and other UN processes

The chapter closes with a summary prognosis for the immediate future of "Life Beyond Growth," that is, the expected progress of ideas and practices that challenge the overwhelming dominance of the growth paradigm in human affairs. However, this prognosis should not be taken as a prediction. As recent history so clearly demonstrates, our world routinely experiences global-scale surprises. But by looking ahead, while also expecting surprises, proponents of New Economic thinking may be able to navigate turbulent times more effectively, avoid landmines, and thereby help to accelerate the institutionalization of new ideas about growth, happiness, and human well-being.

Growth's "Tsunami": The Global Financial Crisis

Any discussion about the immediate future of the alternatives to growth must begin with the immediate past. In 2008, the world entered a period of financial and economic turbulence that continues today. As this report goes to press, public commentators continue to worry about the stagnation of the global economy and the possible collapse of the Euro, and people are routinely taking to the streets of Greece and other countries to protest against the "austerity packages" designed to "rescue" them. What are they being rescued from? Although it is not called by the same name in this context — the words used are "recession," "depression," and "collapse" — the monster from which countries like Greece are being rescued is nothing other than "De-Growth."

Ironically, the specter of involuntary global De-Growth appears to have been triggered by a runaway obsession with growth on the part of certain banks and lending institutions. It is a widely shared consensus that the crisis that began in 2008, which cost the world trillions of US dollars, was triggered by excessive risk-taking, corruption, and the pursuit of ever-greater profits at any cost. As a US Senate investigative report expressed it, "the crisis was ... the result of high risk, complex financial products; undisclosed conflicts of interest; and the failure of regulators, the credit rating agencies, and the market itself to rein in the excesses of Wall Street."[48] The systematically reckless and greedy behavior of a relatively tiny number of people caused a complex system of financial institutions, obligations, and transactions — upon which billions of people depend for the smooth functioning of their lives — to partially collapse.

In the wake of that collapse, governments around the world began borrowing and investing heavily with the express purpose of preventing a more comprehensive shrinkage, or even collapse, in the global economy. The goal of those investments — and the goal of today's interventions, including the pumping of new currency into national economies ("quantitative easing") — is to set national economies back on the path of growth. The desperate lengths to which national governments are willing to go in order to achieve this goal is clear testimony to the insights of Tim Jackson in *Prosperity without Growth* described earlier: for modern industrial economies, growth equals stability.

However, it is interesting to note that national government interest in shifting emphasis away from the GDP, and toward measuring happiness and well-being, emerged almost simultaneously with the financial crisis of 2008. The French-sponsored "Commission on the Measurement of

Economic Performance and Social Progress" (the Stiglitz Commission) had already formed in early 2008; it issued its landmark report in early 2009. Most national efforts cited above also began in 2009 or 2010.

One can conclude that going forward, the world is likely to see a certain amount of "double-messaging" coming from national governments on this issue. On the one hand, the increase in policy rhetoric about the rising importance of happiness and well-being does not seem to have been slowed by the financial crisis; indeed, that rhetoric may even have been partly accelerated by it, as noted earlier. On the other hand, there appears to be no end in sight to the intensive search, by national government leaders, for a new "magic formula" of social, fiscal, and monetary policies that will return the industrial world to steadier, more positive GDP numbers.

The financial crisis may have helped opened the door for New Economic thinking, and especially for new measures of happiness and well-being; but the old economics is still very much in charge of national and international policy.

The Mixed Impact of Disaster and Recovery

Japan was not the only nation that suffered from major disasters in 2011, but the dramatic costs of those disasters, in human lives as well as infrastructure and ecosystem health, have commanded the world's attention. The "3-11" triple disaster (earthquake, tsunami, nuclear meltdown) caused about a 1% decline in the nation's GDP — that is, a relatively small amount of involuntary De-Growth — mostly due to a nearly 5% decline in exports.[49] While the disaster had serious economic costs, it will soon bring, in strictly GDP terms, economic benefits as well. By early 2012, disaster recovery in the form of repairing, rebuilding, and re-equipping the affected areas is expected to contribute positively to the nation's economy. Jobs will be created, infrastructure will be upgraded, and the renewable energy sector will especially benefit. Money spent on disaster recovery is likely to push that nation's GDP up, in ways that decades of fiscal policy by a succession of Japanese governments had been unable to accomplish. Disaster recovery, in a wealthy country like Japan, often functions as a GDP growth-stimulus package.[50]

The same is not true for all nations affected by disaster, however. Pakistan, for example, experienced devastating floods in 2010 that cost the nation billions of dollars and reduced its GDP-measured economic growth by several percentage points. Recovery and rebuilding there will also push the GDP back up — but only if there is money to invest and spend on that recovery (which was expected to cost 8 or 9 billion USD, according to AusAid, compared to the nation's total GDP of about 165 billion). Finding the large sums of money necessary for recovery is never guaranteed for developing countries. The disaster itself tends to increase the perception of risk to outside lenders and investors, creating a downward spiral: disaster causes economic growth to slow down, and as post-disaster conditions worsen, it becomes harder and harder to "get growth going again."

To cite another example, the nation of Liberia emerged from civil war six years ago with a broken hydroelectric dam and power plant. The dam has still not been repaired, because appropriate investors have not been found who are willing to put in the requisite 250 million USD. Investing in Liberia is still seen as too risky; and as a result, over 80% of the people in the capital city of Monrovia do not have access to electricity from the (largely destroyed) power grid. Those who can afford generators pay exorbitantly for the fuel needed to light their homes.[51]

In sum, disaster recovery in the richer nations will eventually tend to push growth higher, while disaster in poor nations slows it down. This situation not only looks bitterly unfair from the developing country perspective, it also works at cross-purposes with what we have recently learned about the relationship between growth and happiness. Those for whom traditional economic growth is necessary, if they are to attain some basic

measure of life satisfaction, find it even harder to achieve. Wealthy nations, on the other hand, get more of what they do not actually need: higher rates of material consumption and production, which make their GDPs go up.

Of course, to those suffering the direct results of disasters, it would be callous indeed to suggest that their local "economies" — that is, their destroyed houses, schools, and town squares — should not "grow back" again; of course they should. But unfortunately, the dynamics of the global economy are very unfair in this regard. The massive disaster in Japan will eventually result in fairly rapid recovery, with significant investments linked to jobs, incomes, and sales of goods and services. This process is expected to start as early as next year. Two years after a similarly devastating earthquake in Haiti, in stark contrast, the country still appears to be years away from any similar kind of recovery. Japan's disaster cost the nation a little over 1% of its GDP; the cost the damage to Haiti's economy (in annual GDP terms alone) has been estimated by USAID at 120%.

For a country like Japan, disaster and recovery offer a similar "double-message moment" to that of the financial crisis. On the one hand, in the wake of disaster, many people in Japan have rediscovered the pleasures and virtues of a more frugal, less resource-consumptive way of life. The value of family, community, and personal happiness have risen in many people's experience, which is likely to further boost interest in concepts like Gross National Happiness (which is already quite popular in Japan). On the other hand, disaster recovery is likely to help Japan out of the "economic doldrums" that the country has been experiencing for the past decade. Japan may be returning to a pathway of economic growth and rising GDP, precisely at the moment when its population is more open to questioning growth's dominant importance and replacing (or complementing) the GDP with something like Gross National Happiness.

However, for countries like Pakistan, Liberia, or Haiti, disasters are becoming more and more costly, and they are preventing those countries from ascending the ladder of development supported by economic growth up to the level of meeting basic needs — much less achieving the minimum income levels associated with personal happiness and well-being. Climate change is increasing the risk of disasters like floods in countries like Pakistan (which also experienced terrible floods in 2011); and rising populations and poverty are making countries like Haiti even more vulnerable to "normal" natural disasters such as earthquakes. In such situations, the application of concepts like Gross National Happiness is likely to be seen as grossly inappropriate.

Militarization, Armed Conflict, and War

In the year 2010, the US government spent over 170 billion dollars on the wars it was fighting in Afghanistan and Iraq, an amount greater than the entire GDP of Pakistan for that year. Since the majority of that money was spent to pay for US soldiers, US-made weapons, and US-based contractual service firms, the "cost" of the war also contributed about 1% of the total US national GDP for that year (estimated at 14.7 trillion dollars).[52]

Does this mean war is "good for economic growth"?

The answer to this question, which has been studied and discussed for decades, is not obvious; nor has it been resolved definitively. Clearly, war appears to be contributing positively to US economic growth, as measured by the GDP: goods and services are bought and sold at a massive scale. Just as clearly, war brings with it enormous costs — both direct (loss of life, destruction of infrastructure) and indirect (pollution, loss of income from normal economic activity). War also brings with it indirect *opportunity* costs, as resources funneled into machines of destruction are not available for more creative investment in more humanitarian needs. In the aforementioned case of Liberia, for example, the cost of maintaining UN peacekeeping soldiers in that country is about 750 million USD — an

annual cost that is three times the *one-time* cost of repairing the aforementioned hydroelectric dam, which still sits idle.

The relationship of war to economic growth — not to mention war's relationship to happiness and personal well-being — is an enormous and complex topic, and well beyond the scope of this report. We concern ourselves here only with the likelihood of militarized conflicts continuing in the coming years, and with an attempt to assess the impact of those conflicts on the spread of New Economic frameworks, measures, and policy changes.

We start with a short summary of the facts. After years of steady decline, the number of armed conflicts in the world has stopped declining for the moment. There are over 30 places in the world where war is occurring, compared to nearly 40 a decade ago (says the International Peace Research Institute in Oslo).[53] Far more importantly, the cost of these armed conflicts — which is also the extent to which they (positively) impact GDP measures globally — has been rising sharply. According to the Stockholm International Peace Research Institute, the world spent over 1.5 trillion USD on armed conflicts in the year 2010.[54] This was half a trillion dollars more than the world spent on war in the year 2000. (Note that the cost of the US-led wars in Afghanistan and Iraq, while expensive and headline-grabbing, still accounts for less than 20% of the global total. War is a global business, involving many nations, both as customers and as vendors.)

In total, war currently accounts for somewhere around 2% of the "Gross World Product," the sum of all national GDPs (the GWP was estimated at about 75 trillion USD in 2010). Does this mean that if war suddenly disappeared tomorrow, the world's economic *growth* — currently running at about 5% per year — would be reduced by two percentage points? The answer, probably, is "not for very long," because the resources being invested in war could then be invested into other, more useful things.

In any case, given the continuing conflicts in Iraq and Afghanistan, the new struggles in the Arab world (many of them involving armed conflicts), and the general possibility for instability that accompanies financial crisis, armed conflict is not likely to disappear, or be dramatically reduced, in the coming years. This means that the *upward pressure* on GDP-measured economic growth from war — not just from the committed expenditures associated with war, but also from the economic actors (such as arms manufacturers) who benefit from war — is also likely to continue. But so will the *downward pressure* on growth that comes from war's destructive effects. That downward pressure is considerable; in all likelihood, it greatly outweighs the "GDP benefits" of war, and also tends to be felt in those countries that can least afford it. A German study completed in 2010 found that on balance, the Gross World Product would have been over 14% higher today, had there been no armed conflict in the world since 1960. Most of the benefits of that additional economic growth would have been realized in Africa. "The most important contributor to the total costs of conflict," noted the study's authors, "is found in its lingering effects ... having conflict lowers a country's level of GDP and it takes time to overcome this."[55]

War, in short, is not particularly good for Growth as Usual — and it is certainly not good for Gross National Happiness or any other measure of human well-being. This appears to provide an opening for the New Economics: war may appear to drive up growth, but this is an illusion, even in traditional GDP terms. The use of traditional GDP measures in the context of war ignores, at the very least, these longer-term costs. Worse, they may perversely contribute to war, since sales of weapons are positively incentivized in national economies (these sales contribute to GDP and foreign exports), and the presence of weapons makes war more likely.

All of the foregoing provides an additional supporting argument for a shift from the Growth as Usual paradigm to something closer to Gross National Happiness. Nations steered more by a desire to improve their population's well-being are

probably less likely to contribute to armed conflict in the world than are nation's steered primarily by the goal of maximizing economic growth.

On the other hand, the presence of armed conflict in the world also contributes to arguments in *favor* of economic growth. As the International Peace Research Institute notes, on a web page published by Norway's Foreign Ministry, "Promoting economic growth and diversification is the best long term strategy for reducing the risk of conflict." This is a strongly held belief among policy-makers that is also rooted in decades of historical experience, including, especially, the reconciliation and rebuilding efforts of post-World War II.

On balance, the presence of armed conflict in the world is *likely to work against* the spread of New Economics in the coming years, and in favor of Growth as Usual, driven by a combination of (1) market-based interests and mechanisms that drive the GDP when money is spent on war, and (2) the strong belief in economic growth as the basis of peace, especially in poor countries.

Poverty Alleviation

Two billion people in the world live on less than two USD per day. It is well established that economic growth, "Growth as Usual" as we have called it in this report, can dramatically improve their lives. As the global poor rise in income, they experience better health, education, equity for women, and other benefits. These very fundamental aspirations for a more prosperous material life are, for most of the world's poor countries, non-negotiable. No amount of argument will convince the leader of a country like Mali (one of the world's poorest countries) that he or she should be focusing attention on Gross National Happiness rather than traditional economic growth.

The positive link between poverty alleviation and traditional economic growth has been so widely demonstrated in practice that it has practically taken on the status of a "law of nature," despite also being subject to a rich tradition of criticism against the *means* by which that growth takes place (e.g. IMF loans, World Bank aid programs), and deep concerns about the inequality that often continues to plague those poor countries whose economies have in fact grown. The alternative — consigning poor people to lives without hope for material improvement — is unthinkable.

Most proponents of the New Economics, therefore, understandably focus their efforts on the wealthy world's need for reform and "graceful descent" from its current heights of profligate resource consumption and waste. When it comes to analysis of economic growth's role in developing countries, however, perspectives differ widely — and appear to be a bit blurry. Many cite Bhutan's Gross National Happiness concept, for example, without taking any note of the fact that Bhutan is also enjoying, and promoting, vigorous economic growth in traditional, GDP-measured terms (its economy is growing at between 6 and 7% annually). Some acknowledge the right of developing countries to pursue growth, on the principle of historical fairness. Others, such as leading De-Growth proponents Tim Jackson and Peter Victor (in the article cited earlier, "Prosperity without Growth is Possible," Vancouver Sun, 18 Sept 2011) believe that such growth is patently impossible — and even ineffective.

While acknowledging that "in the poorest countries ... a better quality of life is desperately needed," Jackson and Victor claim that "the myth of growth ... has failed the two billion who still live on $2 per day." While it may be unclear as yet how to replace growth, thinkers like Jackson and Victor believe that Growth as Usual is producing only prosperity " for the few, founded on ecological destruction and persistent social injustice," and cannot hope to produce "a better quality of life" for those whose countries have not yet achieved higher GDPs.

It is extremely doubtful that this view is widely shared in the developing world itself, nor that it is likely to be embraced in the immediate future. An excellent summary of the current consensus

on the relationship between economic growth and poverty alleviation, from the perspective of forward-looking developing country leaders, was recently articulated by none other than Amartya Sen — co-chair of the Stiglitz Commission. Mr. Sen was responding to Indian news reports that he had "rubbished" (that is, harshly criticized) economic growth and that he had suggested that growth (in this case Gross National Product—GNP) was an inappropriate goal for India. He stated forcefully that he meant nothing of the kind:

GNP growth can, of course, be very helpful in advancing living standards and in battling poverty (one would have to be quite foolish not to see that), but there is little case for confusing (1) the important role of economic growth as means for achieving good things, and (2) growth of inanimate objects of convenience being taken to be an end in itself. One does not have to "rubbish" economic growth — and I did not do anything like that — to recognise that it is not our ultimate objective, but a very useful means to achieve things that we ultimately value, including a better quality of life. (Amartya Sen, "Growth and other concerns," The Hindu, 14 February 2011)[56]

In sum, Sen supports economic growth as a means to an end. While he is a co-author of the influential 2009 report that called the dominance of the GDP and GNP into question and advocates new measures of national well-being, Sen would by no means suggest that nations are better off *without* the GDP — much less without the growth that it purports to measure. In the same article, he goes on to compare India and Bangladesh, noting that Bangladesh has achieved much better social welfare results than India (measured by indicators such as life expectancy and literacy), despite having much lower GDP figures than India. Sen credits at least part of the difference to Bangladesh's NGO movements and more effective government policies. "This should not, however, be interpreted to entail that Bangladesh's living conditions will not benefit from higher economic growth," says Sen. As long as growth is not treated "as an end in itself," then "higher income, including larger public resources, will enhance, rather than reduce, Bangladesh's ability to do good things for its people."

Clearly, Amartya Sen does not believe that growth "fails" to deliver results to the world's poor, in any general sense. Growth is simply one factor among many, and it can be pursued in ways that are better or worse in terms of the quality-of-life results achieved.

Proponents of alternatives to the GDP and to the growth paradigm would be wise to avoid categorical denials of what billions of people in developing countries perceive to be true: that economic growth tends to improve their lives. Concepts like "Green Growth" and "Green Economy" are much more likely to find open ears. Of course, whether continued growth for the poor will remain *possible* for very much longer remains to be seen, and may become increasingly doubtful — especially if the world's wealthy continue to absorb far more of the world's resources than they actually need, in order to maintain their own elevated quality of life.

Geopolitical Power Shifts

On 29 September 2011, the Chinese government sent a rocket up into space that was carrying the first element of a Chinese space station, which will orbit around the Earth. The station, which will rival the International Space Station (in which China has chosen not to participate), will also serve to advance China's goal of sending humans back to the moon for the first time since the last US Apollo mission in 1972.

The Chinese advance to a leadership role in a new, 21st Century space race is just one symbolic marker among thousands of data points one could point to as indicators of the enormous shift currently underway in the world's distribution of raw geopolitical power. Countries like China, India, South Korea, Brazil, and even Indonesia are taking more and more space on the world's stage; countries like the US, UK, and France (which hold three of the five permanent seats on the United Nations security council) appear to be taking less

and less. This change in appearances is supported by many tables of statistics that show the advance of these rapidly developing countries as measured in trade, technology, social welfare, military power, and of course, GDP. The shift was most visible, both in symbolic and real political terms, when the "G8" club of the world's eight most powerful nations was officially replaced by the "G20" in 2009. The G20 includes emerging economies like China, India, and Indonesia; the G8 did not.

This global shift in power is the direct result of growth. More accurately, economic growth and geopolitical power work in a self-reinforcing feedback loop: economic growth increases a nation's power (e.g. the power to invest or push favorable trade relationships), and the increased power makes it possible to secure more of the precursors to growth (such as raw materials). One need only consider the fast-changing relationship between China and Africa to see this principle in action . While accurate data are difficult to come by, China has become "probably the single biggest investor" on the whole continent (Howard French, "The Next Empire," Atlantic Monthly, May 2010)[57]. It is also the largest trading partner for some African countries, including South Africa. No doubt, some African-sourced raw materials have already ended up as components in China's new space station.

While China recently made headlines with its stated intention to reduce its GDP growth goals somewhat in favor of improving human well-being and environmental health (as cited earlier), China's growth goals remain aggressive. After all, an 8% annual growth rate in GDP, China's current annual target, still translates to a doubling of the nation's economy in less than ten years. Other "emerging economies" with ambitions to increase their influence in global affairs have similar targeted, as well as projected, rates of growth.

Given the raw geopolitical equation in operation here (more growth = more power), it is obvious that the governments of most nations will continue to press for economic growth — often at virtually any cost. China appears willing to reduce its stated growth goals in favor of environmental and human health concerns because it can afford to: it will still be growing at breakneck speed. But existing powers like the United States will resist mightily any attempt to actively sacrifice, or to relinquish through decay, the power and influence that comes with commanding massive flows of resources, labor, technology, and money. Other emerging nations will continue their pursuit of growth not just to improve the quality of their people's lives, but also to increase their say and to defend their perceived national interests in a world where great powers are jockeying for position on a fast-changing global playing field.

In sum, the world's geopolitical power shifts will continue to act as a Growth as Usual accelerator, and as a strong pillar of opposition to New Economics ideas, for the foreseeable future.

Democracy Movements

As this report was being completed, crowds of "Occupiers" were taking to the streets in New York and other cities to protest against the lack of regulation in the financial system and the excessive profiteering of key actors in that system (among other topics). This growing "economic democracy" movement explicitly refers to other protest movements that have surged around the world, such as the "Arab Spring" rebellions and the crowds of Spanish and Greek citizens expressing their frustration with their respective governments. These protests are all very different in origin, motivation, and aim, but they have one thing in common: a desire for more democracy.

On the face of it, the rise of democracy movements around the world may seem to favor the spread of New Economics ideas, because they are advocating alternative national directions. Many of these movements are particularly concerned about concentrations of power, whether in political or financial terms (or both), and about unfair distribution of wealth and privilege. But these are surface similarities. The differences are important, and instructive.

The New York Wall Street protestors, for example, call themselves "the 99%" in order to differentiate themselves from the 1% who own approximately half of the nation's wealth (in their estimation). They are essentially protesting the rise of the private sector and the weakening of state control. The protestors on the street in Syria, in sharp contrast contrast, are concerned with concentrations of power and privilege in regime led by President Assad — that is, they are protesting the power of the state.

This fundamental difference suggests that the democracy movements now active in the world today are likely to have two very different attitudes toward New Economics, depending on the national situation. The average person participating in "Occupy Wall Street" would be likely to embrace and promote notions like "Gross National Happiness" as preferable to a fixation on economic growth; and indeed, much of the rhetoric in that movement is critical of growth's excesses. The typical Egyptian protester, however, is concerned with *increasing* growth, insofar as it concerns growth's expected benefits to ordinary people in that country (who were suffering from lack of jobs and high food prices during the last days of the Mubarak regime).

In the coming one to two years, if the protests and their associated democracy movements continue to gain steam, they are likely to increase a general interest in New Economics in the developed world. But reactions to such ideas among democracy activists in the developing world are likely to be much less welcoming: most would probably dismiss, as irrelevant to them, any notion of reducing growth in favor of less material goals and indicators.

The Private Sector: Corporate Business and Financial Institutions

The past decade has seen the rise of a remarkable phenomenon in the corporate and financial sector: corporate social responsibility. "CSR" and its many variants — including corporate sustainability, corporate environmental management, corporate climate initiatives, and corporate responsibility (which leaves out the limiting word "social") — began the decade as a decidedly marginal activity championed by a few leading corporations, many of them driven to reform activity as a result of activist or judicial pressure. By 2010, CSR had become thoroughly mainstream, with thousands of corporations publishing reports and employing professional CSR and sustainability managers. In some instances, an embrace of sustainability has been seriously and publicly embedded in the core business strategy of some of the world's most successful companies.

What has driven this shift, and what does it mean for the promotion of New Economics ideas such as Green Economy and Gross National Happiness?

The shift to sustainability and CSR is the result of many factors, including consumer and investor pressure; increasing "soft" regulation in the form of eco-labeling schemes and voluntary reporting standards; increasingly enlightened leadership (Boards and CEOs taking threats like climate change more seriously); and the realization that managing for sustainability can reduce costs and, in some instances, improve market share. The economic factors are those providing the real fuel that drives the market leaders. Many companies have discovered that CSR and sustainability also pay dividends, even in emerging markets. "Sustainability projects have by far the highest return on investment of any of the projects we do," said the CEO of Unilever Turkey at a Green Business conference in October 2011.

However, the Turkish Unilever executive also described his company's global goal for the next ten years: to double in size, while halving the

environmental impact. Growth is undoubtedly, and most would say quite naturally, at the top of every major company's agenda in the modern world. There is very little evidence that this focus will change significantly in the coming decade. Unilever, a maker of household products and foods, provides a good case study because it is also one of the world's most advanced companies in sustainability reporting and strategy terms. One could say that Unilever is aiming to practice "Green Growth" at the company level — not "Green Economy," not "Sustainable Development," and definitely not "De-Growth", not even in the area of environmental impact. Success for Unilever, after ten years, will mean that the company's current total impact on the environment will have be neither better nor worse than today's in any absolute sense.[58]

The case of Unilever underscores a fundamental fact about corporations and financial institutions generally: they are "wired for growth." Boards of directors, stock markets, lending institutions, and even legal requirements (common interpretations of the fiduciary responsibility of boards) all insist that companies do everything they can in order to grow. Negative impacts, such as carbon dioxide emissions, are increasingly directed to be "minimized," but continuously increasing demand on Earth's resources and emission to its waste dumps (including the atmosphere) is never a reason not to pursue aggressive corporate growth.

To pick one prominent example, in the 1990s, Apple Computer provided high quality computer products to a relatively small and steadily shrinking customer base. People talked about Apple's strategy for survival, its niche role as the "Porsche" of computer companies. However, once Apple started growing again — fueled by popular new products such as the iPod and iPhone — it certainly did not want to stop. Today, Apple has soared to the very top of the global charts in terms of its overall size in financial terms, occasionally passing Exxon Mobil Corporation (an oil company) as the world's biggest company (in terms of market capitalization). Apple shows no sign of stopping and declaring that it has grown "large enough."

Meanwhile, Apple did not even report its environmental impact in any comprehensive way until 2009. As of 2011 it was still not prepared to make any emission reduction targets, or any quantitative commitments of the kind made by Unilever. Apple does, however, point to the fact that its carbon emissions are growing somewhat slower than its revenues (from 2008 to 2010, Apple's revenues went up 74% while carbon emissions grew "only" 57%, according to its corporate website).

These two case studies describe the mainstream thinking of global corporations and their relationship to the issue of growth. Despite the upsurge in CSR and sustainability issues of the last decade, one should not conclude that corporations and financial institutions are prepared to question growth. Doing so would require a transformation in thinking about the very purpose of their institutions. In our research, we found only one instance of growth being slightly questioned publicly by a major corporation: there is a thoughtful reference to "responsible growth" in the corporate sustainability report of Ernst & Young Sweden 2009-2010 (that is, the Swedish branch of the global "Big 4" accounting and consulting giant, not Ernst & Young globally). While that reference, available only in Swedish, noted concern about how growth can cause negative consequences, it was still presented in a report whose overall message was strongly supporting of the growth paradigm.

However, corporations at the leading edge of sustainability thinking — as the Unilever case demonstrates — do seem to be in the process of embracing Green Growth. This is not a small matter, for while Green Growth has been described (earlier in this report) as the lightest and most mainstream-friendly of the suite of New Economic ideas now on the world's agenda, it is still, from a business perspective, revolutionary. In March 2011, the World Business Council for Sustainable Development described it this way:

"... to achieve green growth and accelerate the green

race towards a sustainable world, there is a need for ***far-reaching transformation-sweeping changes*** *in business and society that are necessary, possible and ripe with commercial opportunity. This will require innovation at unparalleled levels, far beyond the technical realm." ("WBCSD Business Role," Executive Brief, March 2011; emphasis added)*[59]

The WBCSD, the world's foremost association for facilitating business engagement on sustainable development, sees its role now as "to accelerate the Green Race" of innovation and change — "far-reaching transformation-sweeping changes" — in order to help companies achieve Green Growth. WBCSD's programs are strongly organized around the Green Growth concept, which it defines as "pursu[ing] economic growth and development while preventing environmental degradation, biodiversity loss and unsustainable natural resource use." The OECD has similarly embraced Green Growth and now produces resources aimed at supporting corporations in making the transition, primarily in terms of reducing carbon emissions.

Corporate reactions to New Economics thus hold clearly to the "light green" end of that idea spectrum, and they can be expected to continue doing so in the coming years. This does not mean that more transformative notions, such as "Gross National Happiness," have not been noticed in the business world; but they are primarily being considered as tools to support continued growth, green or otherwise. For example, branding and marketing specialist Tom Miller (whose company provides other large companies with employee recognition and reward systems) reflected in a recent blog post that "companies can learn from what Bhutan is doing [with Gross National Happiness]." He interprets GNH not as an alternative to growth, but as a tool to *support* growth — including the growth of Bhutan. "Effectively," he writes, "Bhutan is creating a cultural growth and brand management campaign!" He notes that companies can take cues from Bhutan (whose economy and global profile have grown as a result of GNH, as noted earlier) in their own efforts to tell the world "What is it about your culture that everyone needs to know about…to practice…to be proud of…to sustain and grow."

De-Growth advocates will no doubt strongly object to this use of the GNH idea to promote growth. But to find evidence that happiness and life satisfaction are in any way displacing the dominance of growth as a fundamental paradigm of business, one has to look outside the walls of large corporations. For example, Japan's small-to-medium-size business association made national headlines in recent years by publicly embracing concepts like "slow business" and even "slow society." The "Half-Farmer/Half-X" movement, also originating in Japan, is giving people the option of choosing to raise food *and* follow their professional calling at the same time — though observers of Japan's troubled farming economy note critically that this movement may amount to "turn[ing] what's long been a necessity into a conscious choice."[60]

In sum, in the coming years, expect more and more corporations to link their growth goals to a serious greening of their operations. Expect some of them to make use of Gross National Happiness and other ideas to address the quality of life concerns of their employees, and to market their identity to consumers for whom that concept will become increasingly familiar. But do not expect corporate entities to modify or reduce their growth goals in favor of social, environmental, or health concerns, unless required to do so by their national governments (as may occur in some sectors of the Chinese economy, in response to the new national directives there).

Rio+20 and Other International Negotiating Processes

It is difficult to gauge the weight of the United Nations in today's global affairs. On the one hand, the United Nations is an essential actor in countless areas, from climate negotiations to caring for refugees to maintaining peace in post-conflict situations. Its successes are often overlooked, such as the brokerage of major new commitments

on biodiversity conservation in Nagoya last year, which observers hailed as a triumph. Its perceived failures, such as the chaotic negotiating at the end of the Copenhagen Climate Summit and resulting weak "Copenhagen Accord," lead many to discount its contemporary influence.

But while opinions about its influence differ, the United Nations has in any case emerged as the leading global voice for most of the New Economics ideas profiled in this report, including Green Growth, Green Economy, and Sustainable Development. The fate of these ideas is somewhat linked to the UN — which at the moment seems to be working very much to the advantage of the New Economics. As Secretary-General Ban Ki-moon said in a recent interview with the Swedish newspaper *Dagens Nyheter* (9 Oct 2011), "There has never been a greater need for the United Nations, and the organization's relevance has never been greater than it is now." In that same interview, he noted that the world's financial crisis could be seen as an opportunity to turn the world in the direction of a "green growth economy" — thus combining "Green Growth" and "Green Economy" into a single phrase.

The upcoming Rio+20 meeting, formally known as the United Nations Conference on Sustainable Development (4-6 June 2012), will certainly serve as a great exclamation mark in the history of sustainability generally, and in the history of New Economics ideas specifically. "Green Economy" will receive half of the formal programmatic attention (the other half of the agenda concerns institutional reform and governance for sustainable development). Lessons from leading example countries such as South Korea will be highlighted, and a wide variety of policy and financing solutions will be discussed. At the close of the conference, a statement or declaration of some kind will almost certainly be issued — regardless of how much agreement is actually achieved — that affirms the assembled nations' support of the Green Economy idea.

Moments like Rio+20 should not be underestimated, for they are symbolically important in the development of new ways of thinking. If all goes well, this "twenty years after Rio" reflection on the 1992 Earth Summit, and the forward-looking Green Economy agenda that are expected to dominate discussions, will be remembered as a turning point in global affairs. Such moments can provide a new international legitimacy for concepts and practices that had previously been classified as "alternative." But such moments should not be overestimated either. It is unlikely that the nations of the world will come to any binding agreements on a new direction for their economies at the conclusion of the Rio+20 meeting. The most that should be expected is a voluntary agreement, in the style of the original Agenda 21 and Rio Declaration from 1992, declaring the world's intention to pursue a greener economic path.

However, that agreement — together with any specific policy proposals or plans that emerge from the negotiations — can then become a reference document for New Economics proponents, and aid them in their efforts to promote concepts like Green Economy, Sustainable Development, and even Gross National Happiness more widely. Any UN declaration will certainly stop well short of questioning the growth paradigm, since vigorous economic growth is widely viewed as essential to meeting other UN-endorsed aims, including the Millennium Development Goals. But the product of Rio+20 is almost certain to provide a major, global-scale boost to the emerging mainstream of green economic thinking.

Conclusion and Prognosis

In considering the prospects for the development of "Life Beyond Growth" — that is, for the advance of alternatives to the dominance of the growth paradigm in global human affairs — geopolitics must be acknowledged to play an enormous role. On balance, that role is expected to be counter to most (though not all) of the ideas, frameworks, and new indicators that we have grouped under the heading of "New Economics." The combined effect of the global financial crisis (and the economic policy actions taken to address it), power shifts

among nations, the continuing presence of armed conflict in the world, great needs and strong efforts to alleviate global poverty, the mainstream of private sector activity, and the unpredictable-yet-periodic requirements of disaster recovery will all continue to pull the world in the direction of "Growth As Usual."

But these are not the only factors at play, and the impact of certain specific geopolitical factors is mixed. For example, some aspects of the financial crisis have already given a great boost to the concepts of Green Growth and Green Economy (e.g., in South Korea's multi-billion-dollar investment in green technologies which is at the core of its economic stimulus package). Green Growth has also become the objective of leading-edge global companies, who in turn help pull the entire private sector in a greener direction.

It is important to recognize that this partial movement away from the Growth as Usual paradigm is not likely to excite a great deal of spirited opposition: Green Growth is still growth. For a global sea change to occur, and for Green Growth to emerge as the "new normal," it may be enough to have a sizeable minority of nations and companies lead change in that direction. If they are met there by the world's efforts to alleviate poverty and recover from disasters — that is, if poverty alleviation and disaster recovery also adopt Green Growth as their framework and target, perhaps undergirded by strong UN-brokered declarations — then Green Growth will certainly become the new normal.

Alone among these geopolitical forces, the world's upsurge in democracy-based protest movements shows some tendency to pull toward a more radical rethink of the growth paradigm. However, this tendency is confined to protestors in the developed world, such as the "Occupy Wall Street" movement or some elements of the student-based protests in Spain. In the developing world, democracy-based protest movements (generally focused against dictatorial regimes) also include a popular, and appropriate, longing for the greater material prosperity that "Growth as Usual" can bring in the form of jobs, access to education, better health services, and other benefits. On balance, and seen from a global perspective, the democracy movements of 2011 appear to be pulling in both directions: partly toward New Economics, and partly toward Growth as Usual.

The chart on the following page depicts all of these tendencies in graphic form, using the "spectrum" graphic from the previous chapter as a reference point.

In summary, and moving from right to left on this graphic:

- The ***financial crisis*** is causing most governments to act strongly to push for Growth as Usual; but some governments are using the crisis to invest in a shift to Green Growth. (The vertical line indicates that Green Growth acts as a kind of boundary for national economic policy setting.)
- Global ***power shifts***, including the rise of China, India, Brazil, and other emerging economies, are an enormous factor driving national policies around the world further in the direction of Growth as Usual. While some nations do publicly adopt Green Growth strategies, the overwhelming center of gravity in the world, in response to global power shifts, is still Growth as Usual.
- ***Armed conflicts*** in the world, because of a perceived (but deeply illusory) positive impact on economic indicators like the GDP, also act to uphold the traditional Growth as Usual paradigm. True-cost accounting of war — which, for example, the Genuine Progress Index or Genuine Savings indicator would capture — has not penetrated mainstream economic policy-making in any significant way.
- The ***private sector*** remains committed to Growth as Usual, and strongly anchors the world at that end of the spectrum. But forward-looking companies have embraced

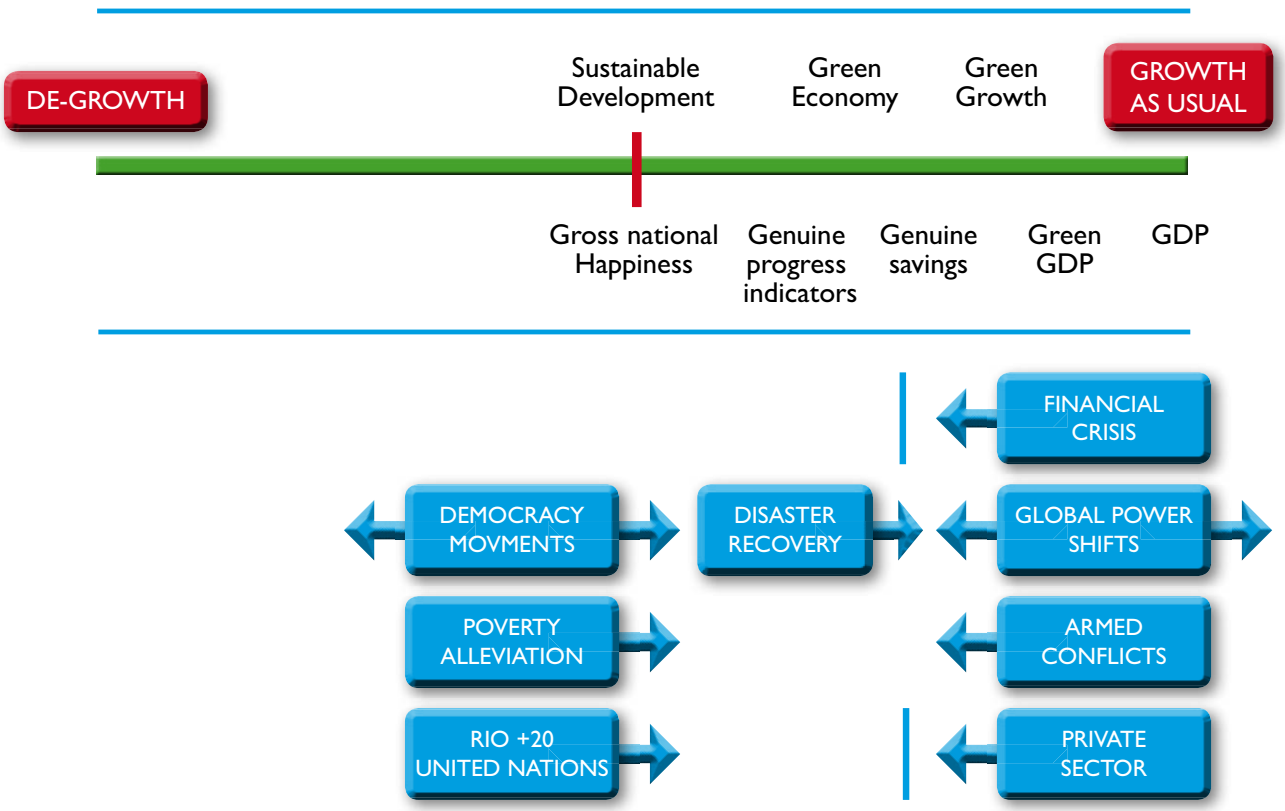


Figure 5. Charting the influence of geopolitical issues on the near-term development of New Economics ideas (building on Figure 4). See explanation in the text that follows.

Green Growth in some form, creating a kind of counter-movement within the private sector that may shift its center of gravity. As with the financial crisis, Green Growth acts as a kind of boundary beyond which global companies are not prepared to venture.

- Efforts to ***recover from disasters*** send positive economic signals in pure GDP terms, and this pulls the world in the direction of Growth as Usual. Disaster recovery starts, however, from a position more in alignment with Genuine Savings or Genuine Progress, because disasters affect the overall social, economic, and environmental balance sheet. Note that more disasters translate to a greater need to pursue Growth as Usual in the countries affected, in order to rebuild physical infrastructure.

- The ***democracy movements*** active in the world today begin from a position of neutrality on the Growth as Usual/De-Growth spectrum. Those in wealthy countries tend to pull in the direction of radical revision of the growth paradigm; those in developing countries tend pull toward Growth as Usual.

- The need for ***poverty alleviation*** is also placed in the middle of the spectrum because of its principal alignment with the broad goals of sustainable development. However, the strong global consensus on growth (green or otherwise) as the most effective strategy for reducing poverty means that such efforts contribute to a global pull in that direction.

- Finally, the ***Rio+20*** meeting scheduled for June 2012 and the ***United Nations*** processes generally are not organized principally around

growth. They are centered on Sustainable Development, together with the principles of social equity and environmental care that this concept includes. However, the strong current emphasis within the UN on Green Economy and Green Growth has the effect of pulling the world in that direction as well (and certainly away from anything like De-Growth).

The combined effect of all of these geopolitical pushes and pulls on the world can be summarized as *a strong tendency to continue pushing for growth — but with a good possibility for global consensus forming around the concept of Green Growth.* Green Growth (more so than the more multi-dimensional concept Green Economy) represents a compromise position: it may be seen as a weak step (or even a problematic development) from the perspective of serious growth critics, but it has the potential to unite many different factions around a goal that many see as revolutionary and even transformative.

At the same time, as noted earlier, more and more nations are embracing happiness as an alternative to the fixation on GDP and Growth as Usual. However, the geopolitical realities of the world today suggest that in the near term, happiness, well-being, and similar concepts are most likely to be seen as *parallel and complementary* goals, and not as replacements for the growth paradigm.

The foregoing analyses lead to a summary prognosis:

In the next few years, the concept of Green Growth is likely to become a new "center of gravity" in economic policy. A consensus around new national indicators (such as the "Green GDP" or "GDP Quality Index"), representing the reform of traditional economic growth measurement, is likely to emerge as well. This new focus on Green Growth is likely to be complemented, though not replaced, by national measures of happiness and/or well-being that are tailored to each country's cultural and historic context.

If this prognosis proves accurate, it will indeed mark a dramatic shift in the way nations practice economic policy. While not a retreat from the growth paradigm, a shift to Green Growth complemented with national happiness measures will represent a significant broadening out of society's overall economic agenda, and pave the way for still more social and economic innovation. This shift also opens the door to a new ethical framework for thinking about growth and well-being on a global scale. We will explore this possibility in the final chapter.

Concluding Reflections: The Ethics of Growth and Happiness, and a Vision for the Future

This report has reviewed the diverse family of concepts and practices (the "New Economics") that are emerging as viable alternatives to the dominant global paradigm of Growth as Usual. It has assessed the progress of these alternatives, as well as the forces operating to advance or retard that progress in coming years. Finally, it has concluded that the sum of these forces and trends is likely, within the next few years, to produce a new global consensus — meaning, a new shared sense of what "normal" means, even if not everyone agrees with or prefers that new "normal."

The "new normal" is likely to consist of:

- An accelerating shift to ***Green Growth*** among countries, international institutions, and private sector organizations, together with revised indicators to assess the achievement of that shift. (While some will use the phrase "Green Economy," Green Growth is likely to be the more dominant concept in practice.)
- An increasing embrace of complementary ***national happiness measures***, modeled loosely on Bhutan's Gross National Happiness concept, but adapted to the specific features of each country's culture and definition of happiness or well-being.

Staunch critics of growth are likely to view this consensus with suspicion, or even alarm, fueled by their concerns that continued growth (green or otherwise) will compound the world's serious environmental and resource problems before leading to an inevitable collapse of civilizations. Staunch proponents of Growth as Usual are also likely to view a "Green Growth/National Happiness" package with equal suspicion, especially when this shift appears likely (to them) to reduce their economic or political power, or to reduce their chances of achieving internationally agreed-upon goals such as poverty alleviation.

When groups occupying extreme positions on a spectrum of opinion appear to be equally dissatisfied, this is often an indicator that a new consensus is emerging in between them. While many may prefer different specific ideas, most are prepared to live with that emerging new social reality — which, of course, continues to be fluid and changeable. Most engage with a new consensus in order to continue shaping it, and tugging it in their preferred direction; only the most extreme voices actively disavow it and continue to fight exclusively for their preferred ideas and ideologies.

This is very likely the situation with Green Growth and National Happiness, two concepts that have emerged as attractive consensus points to both "alternative" and the "mainstream" actors in the world of economic goal-setting and policy-making. As that consensus begins to gel and take form, it is finding a home for itself within a complex political ecosystem of institutions, national commissions, political champions and the like. At the same time, however, a number of unavoidable ethical questions are following in its wake and demanding to be considered.

For example, if happiness (or at least the possibility of happiness) is embraced as a national goal, should it also be considered a human right? None of the thirty articles in the Universal Declaration of Human Rights — adopted by the United Nations in 1948 — specifically mentions happiness.

However, Article 25 states, "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family ..."; it also specifies many of factors identified by researchers as the precursors to subjective happiness. These basic needs include food, shelter, clothing, medical care, and other social services, including support to those who are unemployed. Many other rights guaranteed by the Declaration are also related to what researchers say make us happy, including work, recreation, and the possibility to participate in the decisions that affect our lives.

If "National Happiness" is at least close to the concept of national well-being — and despite debates over nuances, few would deny that it is — then the adoption of National Happiness measures and policies could be seen as an overdue implementation of the ideals embraced by the world more than sixty years ago. More importantly, this would establish that *the possibility for happiness should be seen as a universal right,* something that all nations should be committed to achieving on behalf of their citizens. Since access to these precursors for happiness and wellbeing often depend on a certain minimum standard of material prosperity, acknowledging this right would make providing certain levels of economic growth — green or otherwise — an imperative all countries.

The world as a whole, one might conclude, has a self-declared ethical duty to provide sufficient economic growth to make human happiness possible.

But what if that growth becomes excessive? What if the drive for Growth as Usual is actually *impoverishing* people and making them less happy — particularly those who are already poor, not to mention the unborn generations coming after us? What if Growth as Usual is undermining, rather than supporting, the chances that the world's poorest people might someday live happy lives? What if, in order to ensure the precursors of well-being identified by the Universal Declaration of Human Rights, as well as contemporary empirical research, some things actually have to *shrink*?

Indeed, science tells us that some shrinkage, some forms of "De-Growth" in the structure of the worlds many economies, are imperative. We must de-grow our carbon emissions if we are to protect the planet's climate. We must de-grow our impact on ecosystems if we are to preserve the planet's biodiversity. We must de-grow our consumption of certain irreplaceable resources — water among them — if we are to have any hope of passing on a reasonable quality of life to the next generation.

The choice to heed or to ignore these scientific warnings is fundamentally an ethical choice, one that is deeply bound up with hardened beliefs, interests, and ideologies. One need only glance at current news reports and to the photographs of protestors in the streets around the world to see that a tremendous polarization is occurring. The world is in serious need of a new vision, the kind that can provide a new sense of common ground.

Green Economy + National Happiness = Sustainable World

This report has so far noted the *likelihood* that Green Growth is the framework most likely to step onto the center of the world stage in coming years as the "new normal." This is an analytical conclusion based on a review of current trends, and the forces most actively shaping those trends. However, from an ethical perspective, different conclusions must be drawn. For ethics is not about what is *likely* to happen, but about what should happen. Ethics is about vision.

If one takes seriously the idea that everyone on Earth has a right to well-being — and one would be callous, to say the least, to suggest otherwise — then Green Economy provides a more satisfying and inclusive framework than Green Growth for achieving it. Green Economy, not Green Growth, should be promoted as the preferred way of describing this aspect of our new global goal.

Green Economy *allows* for growth where it is needed, where it does not actually endanger people (now or in the future), and where it does not

work at cross-purposes with our universal needs and desires. But Green Economy also allows for shrinkages and reductions (selective de-growth) where those are also needed, for example, in the consumption of irreplaceable resources, in the destructive depletion of renewable ones, and even in the shift in consumption patterns from resource-hungry "stuff" to resource-light "experience".

Green Growth, in contrast, still pushes universally for growth. Without the broader and more systemic perspective of Green Economy, Green Growth keeps driving the world single-mindedly towards the hard wall of limits imposed by Nature, albeit at a somewhat reduced speed. Green Economy, as a concept, pushes for meeting human needs and aspirations *within* the limits of what the planet can actually sustain. (UNEP defined a Green Economy as one that "results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.") The concept of a Green Economy, therefore, automatically includes the judicious application of Green Growth; but the reverse is not true.

As a goal, Green Economy is also far more ambitious than Green Growth. This makes the concept a "harder sell": recall how the World Business Council for Sustainable Development characterized Green Growth as already requiring "far-reaching transformation-sweeping changes." Green Economy is also less clearly defined and less easy to measure than Green Growth. But in pure conceptual terms, Green Economy is a far more accurate description of what human civilization actually needs, at every scale, from the villages of Africa to the boardrooms of global corporations and the parliaments of nation states. Many African villages are, of course, already quite "green"; what they need, to improve their well-being, is more Green Growth. What corporations and developed nations need, by contrast, is deeply restructured economies where monetized economic growth does not require endless expansion in physical throughput: Green Economies.

Marrying the concept of Green Economy to the concept of National Happiness has the potential to describe — perhaps for the first time — a clear and actionable vision for sustainability at the global scale. In addition, the research findings cited earlier may even provide us with measurable, quantitative, targets, albeit rough ones.

If we accept the research findings that economic growth buys considerable human happiness only up to the level of approximately USD 15,000 per capita GDP, then a right to happiness and well-being translates to a right to that level of national income (assuming that the distribution of that national income is not terribly unequal — which is hardly a given). In other words, people living in countries with national incomes lower than $15,000 per person are deserving of more growth. It is hard to argue that they should settle for less, when billions enjoy incomes much larger than that. Even ways of measuring national income are, of course, quite varied; but there are numerous countries whose national income per person is *less than 10%* of that figure, no matter how one measures it.

What of the countries whose incomes are much larger? Where economic Growth as Usual is demonstrably ruining the planet, without even providing any returns in the form of happier human lives? It would be politically foolish — even if it appeared, on the surface, to be ethically consistent — to suggest that people in such countries should actually have their incomes reduced. People who suddenly feel poorer, in monetary terms, clearly feel less happy, even if their incomes remain well above that $15,000 minimum. The 2011-2012 protests on the streets of Greece plainly demonstrate this fact. So while something like $15,000 per person could be embraced around the world as a *minimum* level of universal per capita income to which we should aspire, it is extremely unlikely to be embraced as a *target*.

This is where the concept of Green Economy comes in: can the world's nations, corporations, cities, institutions, and households convert their economies to green ones, where the net impact on nature is within the boundaries of what the

planet can sustain? As challenges go, this one looks enormous: measures such as the Ecological Footprint suggest that a country like Japan would have to cut its consumption of resources and environmental impact by (very roughly speaking) more than half, while the United States would need to reduce by a factor of 75%.[61] Is that possible? "We already have the technology" is a phrase one often hears in green economic circles. "All that is lacking is to deploy it." But this is a gross exaggeration: for example, a recent Swedish attempt to implement all available innovations in energy efficiency and demand management into one experimental "typical" household failed to achieve a sustainable level of carbon emissions. This suggests that a great deal of pure technical innovation is still required, not to mention major social changes in consumption patterns and habits.[62]

Calculating the scale of our challenge is itself a challenge; but the most recent calculations actually give cause for optimism. The 2011 UNEP Green Economy Report, for example, estimates the investment cost for "greening the global economy" as somewhere "in the range of US$ 1.50-2.59 trillion." While these are large numbers indeed, UNEP notes that this is still "less than one-tenth of the total global investment per year." As a fraction of monetized world economic activity every year (annual Gross World Product), $1.5 trillion is a mere 2%. In pure financial terms, creating a Green Economy — shifting investment flows, and changing the rules of the game so that investments in a Green Economy are rewarded — is entirely possible. The obstacles to doing so are therefore institutional, political, and cultural.

Which brings us back to the question of ethics and vision. For this is exactly the question facing the world: can we commit ourselves to growing — or more accurately, redeveloping — a global Green Economy? Can wealthy nations find ways to dramatically reduce their consumption of resources and overall impact on nature, while maintaining their monetized incomes and the vitality of their industrial and technological systems? Can poor nations grow their economies in new ways, so that their people can have access to the goods and services that will provide them the well-being they deserve, without further crushing the world's ecosystems underfoot? Can global *incomes* continue to increase — especially among those who cannot yet afford the elements of happiness that money can actually buy — even while the global *footprint* on nature begins to shrink? Can we finally and truly decouple the one from the other?

Answering these questions with a "yes" may seem impossible at the moment. We live in a world whose dominant economic systems — despite optimistic trends in areas like renewable energy and efficiency — are still utterly dependent on the expansion of fossil fuels, strip mining, the decimation of forests, exploitative labor practices, and much more besides. Growth as Usual, the ruling economic paradigm for centuries and the source of so many material benefits to humanity, is also the driving force behind so much of the misery and environmental devastation we see today as well. Growth as Usual may have finally met its first serious challengers, in the form of revolutionary concepts such as Green Growth, Green Economy, and Gross National Happiness. But Growth as Usual is hardly on the ropes yet. If there is a transformation in the making, we witnessing its very earliest days.

But this is also how transformations begin: small, hard to see, apparently insignificant. Then they start to spread, and people begin to believe that the impossible might just be possible. More and more of them join the effort to *make* the impossible possible. And then — seemingly all of a sudden — it is happening everywhere.

References & Resources

Preface

1 John Maynard Keynes, Essays in Persuasion, New York: W.W. Norton & Co., 1963, pp. 358-373.

Introduction

2 Sustainability Portal of the Austrian Government (http://www.nachhaltigkeit.at/article/articleview/81097/1/25540). The OECD Better Life Initiative (www.oecdbetterlifeindex.org/topics/life-satisfaction) is one place to find this kind of information for member countries.

The Rise of a Movement

But What is "Growth"?

3 "Better Measures, Better Policies, Better Lives," Remarks by Angel Gurría, OECD Secretary-General, delivered at the Conference "Two Years after the release of the Stiglitz-Sen-Fitoussi Report," Paris, 12 October 2011 (www.oecd.org).

From Bhutan to Britain

4 Happiness movement—Action for Happiness (actionforhappiness.org) created by British economist Richard Layard and others; Downshifting movement: Jackson, Tim, Prosperity Without Growth, London: Earthscan, 2010.

1. The Historical Foundations of Economic Growth

Economic Growth: The Paradigm of the Past

Growth, Economic Growth, and Monetized Economic Growth

5 Romer, Paul, "Economic Growth," in The Concise Encyclopedia of Economics, David R. Henderson (ed.), Liberty Fund, 2007.

6 The story of Simon Kuznets and his development of the GDP, as well as critique its subsequent use, is told in multiple locations accessible on the Internet, including e.g. the US Council on Foreign Relations (www.cfr.org/economics/gdp-economic-policy/p22922)

An Economy of Happiness

7 "Strength in a smile — A new discipline moves to centre-stage," The Economist, 12 May 2011 (www.economist.com)

8 "Sanya Declaration," BRICS Leaders Meeting, Hainan, China, 14 April 2011.

Happiness, Money, and Economic Growth

9 For example, see: Easterlin, Richard A. and Angelescu, Laura, "Happiness and Growth the World Over: Time Series Evidence on the Happiness-Income Paradox," IZA Discussion Paper No. 4060 (ssrn.com/abstract=1369806).

10 Examples include: Frey, Bruno, Happiness: A Revolution in Economics, MIT Press, 2008; Layard, Richard, Happiness: Lessons from a New Science, Penguin, 2006; Kahneman, Daniel, et al. "Toward National Well-Being Accounts," The American Economic Review, Vol. 94, No. 2, (May, 2004); Veenhoven, Ruut; J. Ehrhardt, M.S.D. Ho, A. de Vries, "Happiness in nations: Subjective appreciation of life in 56 nations 1946–1992," Studies in socio-cultural transformation No. 2., Rotterdam, Netherlands: Erasmus University Rotterdam. (1993). See also: World Database of Happiness (worlddatabaseofhappiness.eur.nl)

11 Wikipedia has a good article on Easterlin's

Paradox, including original references from the 1970s and a good summary article on the field of "Happiness Economics" that provides all the standard sources. Note that Kahneman's most recent work published looked at individual salary levels (he found a limit to increasing happiness at USD 75,000), not overall GDP figures. Much of the current research can be accessed through the article by Kahneman and Angus Deaton, "High income improves evaluation of life but not emotional well-being," Proceedings of the National Academy of Sciences (PNAS), 4 August 2010. Often these views seem to break down along ideological lines: Veenhoven's work, for example, is quoted with appreciation by the politically conservative Cato Institute in the United States.

2. The Rise (and Possible Future Fall) of the Growth Paradigm [H1 1]

The Origins of Economic Growth

1849-1972: Growth's Explosive, Bloody Century

12 Steffen, Will, A. Sanderson, P. D. Tyson, J. Jäger, P. A. Matson, B. Moore III, F. Oldfield, K. Richardson, H. J. Schellnhuber, B. L. Turner and R. J. Wasson, Global Change and the Earth System: A Planet Under Pressure, Springer-Verlag, 2004.

Digging Up Money

13 Miklos Persanyi, former Minister of Environment, Hungary, personal communication, September 2011.

14 Hanbury-Tenison, Robin (ed), The Great Explorers, Thames & Hudson, 2010.

Growth's "Secret Ingredient": Energy

The Wars for Growth

15 Yergin, Daniel, The Prize, New York: Simon and Schuster, 1990.

The Rise of the GDP

16 Cobb, Clifford, T. Halstead, J. Rowe, "If the GDP is Up, Why is America Down?" The Atlantic Monthly, October 1995.

17 Kuznets, Simon. "How to Judge Quality," The New Republic, 20 October 1962, p 21.

The Tipping Point for Growth

1972: The Launch of the Global Growth Debate

18 Lahart, Justin, P. Barta, A. Batson, "New Limits to Growth Revive Malthusian Fears," Wall Street Journal , 24 March 2008.

3. The Building Blocks of the Growth Paradigm

Foundations in Economic History

The Prominence of Economics and Economists

19 As a final coda to this informal analysis, a search on the words "economist" and "growth" together in an article produced about 18,000 results, while the words "economist" and "environment" together produced about 2,000 -- which included references to the "business environment."

The Development and Use of Economic Indicators

The End of Communism and the Victory of Globalized Capitalism

Cultural Values Regarding Natural Resources

The Role of Currency and Monetary Systems

The Spread of Consumerism and the Culture of Desire

20 Curtis, Adam, "The Century of the Self," BBC, 2002.

4. Alternatives to the Growth Paradigm: A Short History

21 For a concise summary, see "Australian Aboriginal Communication as Resistance,"

Anne Pattel-Gray, World Association for Christian Communication (www.waccglobal.org/en/19962-communication-as-everyday-resistance/979-Australian-Aboriginal-Communication-as-Resistance.html).

22 Information presented on the Plymouth Colony was gathered by visiting the modern-day recreation of that Colony, where actors strive to portray life exactly as it was lived by the colonists.

Utopian Movements

23 Boulding, Kenneth, "The Economics of the Coming Spaceship Earth," 6th Resources for the Future Forum on Environmental Quality in a Growing Economy, Washington, D.C., 8 March 1966.

Simple Living Movements

24 Schumacher, E.F. Small is beautiful: economics as if people mattered, London: Blond and Briggs, 1973.

Eco-Villages, Transition Towns, and Slow Cities

The New Economics

25 Boyle, David and A. Simms, The New Economics—A Bigger Picture, Earthscan, 2009.

5. Rethinking Growth: Alternative Frameworks and their Indicators

26 Report by the Commission on the Measurement of Economic Performance and Social Progress (2008), Joseph Stiglitz, Chair. (www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf)

27 See Commission on the Measurement of Economic Performance and Social Progress website: www.stiglitz-sen-fitoussi.fr/en/index.htm

28 How's Life? Measuring Well-Being, 2012, OECD (oecd.org).

A Guided Tour of the Territory

Green Growth

29 Green Growth, the UN's main portal on this topic (greengrowth.org); The Global Green Growth Institute (gggi.org). For a critique of Green Growth in comparison to Sustainable Development as well as other environmental goals beyond "low-carbon" development, see "A Conflict of Greens: Green Development Versus Habitat Preservation – The Case of Incheon, South Korea," by Yekang Ko, Derek K. Schubert and Randolph T. Hester, Environment, May-June 2011 (environmentmagazine.org/Archives/Back%20Issues/2011/May-June%202011/conflict-of-greens-full.html).

Green Economy

30 UNEP, Green Economy website (unep.org/greeneconomy).

Sustainable Development

31 UN Department of Economic and Social Affairs, Division for Sustainable Development website (un.org/esa/dsd); UN Indicators of Sustainable Development, National Reports (un.org/esa/dsd/dsd_aofw_ni/ni_index.shtml).

Genuine Progress, Genuine Savings, and the Green GDP

32 UN Indicators of Sustainable Development, National Reports (un.org/esa/dsd/dsd_aofw_ni/ni_index.shtml).

33 Cobb, Clifford, Ted Halstead, and Jonathan Rowe, "If the GDP is Up, Why is America Down?" The Atlantic Monthly, October 1995.

34 Centre for the Study of Living Standards, "Index of Economic Well-Being," Sept 2011 (csls.ca/iwb.asp).

35 Maryland—Smart, Green & Growing website (green.maryland.gov/mdgpi).

36 The World Bank, Environment Data & Statistics, Green Accounting: Adjusted Net Savings (bit.ly/genuinesaving).

37 McGregor, Richard " China drops 'green' GDP

index plan," Financial Times, 10 May 2006.

38 Wagner, Gernot, "The Political Economy of Greening the National Income Accounts," AERE Newsletter (Association of Environmental and Resource Economists), Vol 21, no 1, May 2001.

39 Wikipedia, "Green GDP," (en.wikipedia.org/wiki/Green_gross_domestic_product).

Gross National Happiness

40 How's Life? Measuring Well-Being, 2012, OECD (oecd.org); Your Better Life Index, OECD (oecdbetterlifeindex.org).

41 Chrisafis, Angelique, "Measuring happiness, the French way," The Guardian, 17 November 2010.

42 The Center for Bhutan Studies (www.bhutanstudies.org.bt).

De-Growth

43 Jackson, Tim and Peter Victor, "Prosperity without growth is possible," Vancouver Sun, 19 September 2011.

44 Victor, Peter, Managing Without Growth: Slower by Design, Not Disaster, Edward Elgar Publishing (2008).

45 Research & Degrowth web portal: DeGrowth.net; Jackson, Tim, Prosperity without Growth? - The transition to a sustainable economy, UK Sustainable Development Commission (2009) (sd-commission.org.uk/publications.php?id=914).

A Spectrum of Alternatives

46 Your Better Life Index, OECD (oecdbetterlifeindex.org).

Conclusion: A Landscape Still in Formation

47 New Economics Foundation, Happy Planet Index (happyplanetindex.org).

Conclusion: A Landscape Still in Formation

6. Looking Ahead: The Political Economy of Growth in the Early 21st Century

Growth's "Tsunami": The Global Financial Crisis

The Mixed Impact of Disaster and Recovery

48 "Wall Street and the Financial Crisis: Anatomy of a Financial Collapse," United States Senate, Report of the Permanent Subcommittee on Investigations, 2011

49 "World economy, domestic political confusion casts shadow over Japan economic recovery," Mainichi Daily News, 16 August 2011.

50 "Japan Earthquake: Lessons from Kobe Offer Hope for Swift Recovery in Sendai, by Alain Sherter, CBS Interactive Business Network, 11 March 2011" (bnet.com/blog/financial-business/japan-earthquake-lessons-from-kobe-offer-hope-for-swift-recovery-in-sendai/11806)

51 Lee Mason, Assistant Minister for Regional Planning, presentation at Pre-Launch Seminar of the UN Office for Sustainable Development, 25 Aug 2011, Incheon, South Korea.

Militarization, Armed Conflict, and War

52 Center for Defense Information, via (infoplease.com).

53 "Global Trends in Armed Conflict," Norwegian Ministry of Foreign Affairs (regjeringen.no/nb/dep/ud/kampanjer/refleks/innspill/engasjement/prio.html?id=492941)

54 Stockholm International Peace Research Institute, SIPRI military expenditure database: (http://www.sipri.org/)

55 Bozzoli, Carlos, T. Brück, O.J. de Groot, "The Global Economic Costs of Conflict," unpublished working paper, 2010. Available by request of Olaf J. de Groot, DIW Berlin (www.diw.de).

55 Bozzoli, Carlos, T. Brück, O.J. de Groot, "The Global Economic Costs of Conflict," unpublished working paper, 2010. Available by request of Olaf J. de Groot, DIW Berlin (www.diw.de).

Poverty Alleviation

56 Sen, Amartya, "Growth and other concerns," The Hindu, 14 February 2011.

Geopolitical Power Shifts

57 Howard French, "The Next Empire," The Atlantic Monthly, May 2010. Note that the African Economic Outlook disagrees with this assessment and identifies India's Foreign Direct Investment as exceeding China's (africaneconomicoutlook.org).

58 Doubling growth while halving environmental impact means no net change in environmental impact. In fairness, Unilever does have relatively advanced goal-setting in this regard, relative to other global-scale companies. The point here is that this goal setting is not leading to a reduction of the negative impacts of growth in the near or medium term, and that the growth goal is aggressive. Also, the graphics displayed by Unilever (at a conference on Green Business, Istanbul, 6 October 2011) indicated an expected growth in environmental impact at first, but at a slower pace than growth in sales and revenues. This means that environmental impact would increase in the coming years, then peak, and then start to reverse. After a decade, environmental impact would have come back down to the level it started from in 2010, projects Unilever, while revenues would have doubled compared to that base year. But the graphic displayed was a rough schematic; it is impossible to know how seriously the company treats such projections.

59 World Business Council on Sustainable Development, "WBCSD Business Role," Executive Brief, March 2011 (wbcsd.org)

60 Bird, Winifred, "Half-Farmer, Half-X: Ideal Lifestyle or Unfortunate Reality?," Mother Earth News, 28 November 2010. (www.motherearthnews.com/happy-homesteader-half-farmer-half-X.aspx#ixzz1aPdNB8pp)

Rio+20 and Other International Negotiating Processes

61 Ecological Footprint website: footprintnetwork.org

62 A recent one-year effort by a Swedish family that involved living in a latest-generation energy efficient house, driving an electric vehicle, buying locally produced environmentally-friendly products etc. revealed that even under the best possible current conditions, reducing carbon footprint to a sustainable level was not yet achievable. (Source: Prof. John Holmberg, Chalmers University, presentation at the annual meeting of the Balaton Group, 9 Sept 2011.)