

Introduction: A New Economic Paradigm Based on Well-Being

THIS BOOK REPRESENTS my vision for a new economic paradigm that would place well-being at the heart of all economic and monetary policies and make well-being the highest aspiration of businesses, communities and nations.

The dominant era of financial capitalism is waning. There is a hunger for a new economic paradigm and model that aligns with a common yearning for a life of meaning, sufficient income for material needs, as well as a life of meaning and joy.

Various economic authors have begun to identify some of the key shortcomings of modern economic systems—for example, Thomas Piketty, author of *Capital in the Twenty-First Century* (2015), whom some critics have hailed as a modern “Marx” for revealing the negative impacts of inequality of income and wealth since the industrial revolution. Others have offered a new economic vision, such as David Korten in his most recent work, *Agenda for a New Economy: From Phantom Wealth to Real Wealth* (2010). Most either provide either a depressing prognosis of the economic patient or offer inadequate and often impractical alternatives to the dominant system of financial capitalism.

Some economists, including ecological economists (Peter Victor, Herman Daly and others), go beyond constant economic

growth, suggesting zero-growth and steady-state economics as a solution to pressing issues such as climate change. Yet most fail to identify what I believe is the hidden cancer that threatens to kill most world economies: unsustainable levels of exponential, bank-created debt. Economists Graeme Maxton and Jorgen Sanders, in their new book *Reinventing Prosperity: Managing Economic Growth to Reduce Unemployment, Inequality and Climate Change* (2016), provide what they believe are politically viable solutions to some of the most pressing challenges of our time, including rising income inequality, climate change and the replacement of human labor with robots. Yet I find these proposals lacking in practical common-sense attributes that would transition our economies from a current state of economic cancer to ones that are truly flourishing and resilient. Most economists demonstrate a fundamental lack of understanding of how the current debt-money system works, which is, in my opinion, the most important issue preventing our economies and our own economic lives from achieving genuine happiness.

Ironically, while many of these economists anticipate that policy advisers and decision-makers may find hope in their proposed solutions, many, like Maxton and Sanders, seem resigned to a dark future in which their list of solutions may have absolutely no chance of being accepted by those in power—financiers, the rich and big corporations. Instead, they hope that people will read their book, recognize the benefits and feel compelled to vote in democratic elections for the party that would courageously present their new economic agenda.

The economy of well-being model I propose will hopefully have the greatest chance of success, primarily because it is built on the best attributes of economics and accounting from the past five hundred years while shifting the focus of economic policies from pure economic growth and debt-based monetary policies to one of economic, social and environmental well-being. This would return economics to its Greek origins, namely, what Aristotle called *oikos-nomia*, meaning good “household management.” Moreover, it would revisit Adam Smith’s *Wealth of Nations*

through the original Old English definition of wealth (*wela-th*), meaning “the conditions of well-being.” Had Smith used this original definition of wealth, his seminal book from 1776 would have been titled *The Well-Being of Nations*. Well-being can be defined as people’s own positive evaluations of their lives, which include positive emotions (happiness), engagement (relationships), life satisfaction and meaning (Seligman, 2002).¹

Imagine if the fields of economics, accounting and finance in the United States, Canada, Europe and Asia had focused on well-being rather than the primacy of financial capital and economic growth. The premise of my work is to make well-being the primary focus of policy makers in government, communities, business and the world of finance and money. This would mean a shift in economic theory and policy toward the wise stewardship and well-being of both the households and communities that make up nations, in harmony with the resilience of Mother Nature.

I will attempt to lay out a clear architecture and road map for building the new economy of well-being, which I believe to be more compelling than the current economic paradigms. I believe well-being economics will appeal to a broad spectrum of political and spiritual ideologies and beliefs. I offer it as a model for a moderate and middle path for any community, state, province or nation.

Abraham Maslow defined a hierarchy of needs; at the peak of his hierarchy was self-actualization, spiritual fulfillment and happiness. But he defined happiness in the original Greek—*Eudaimonia*, meaning “the well-being of spirit.” Maslow, like Aristotle, understood that the highest aspiration of the human being was to achieve their full potential or vocation. I believe Maslow, like the Indigenous people of North America who inspired his model, would agree that human flourishing and well-being (physical, mental, emotional and spiritual) is the ultimate aspiration of all people.

This common-sense economic evolution will require a fundamental restructuring of our money systems, which have been dominated by a debt-money system that emerged from London in

1694 with the founding of the Bank of England. Few economists understand how the debt-money system of private bank-created financial capital works and that it is the key driver behind an obsession with economic growth. The human and environmental costs (in the form of interest cost of debt money) of this brilliant system of fractional reserve banking is the elephant in the room of economic forums such as the World Economic Forum. Why is this never discussed in *The Economist* or at G7/G20 or other forums dealing with public policy?

In an economy of well-being, money and its creation would be governed collectively to contribute to the greatest good of all people. This shift in our economic consciousness from casino capitalism, individualism and materialism to well-being is not as difficult as some might think. It would entail working within the existing tools and practices of economics, accounting and finance but with a new perspective that would focus on the highest and best use of assets.

Economic and monetary policies and models would seek to find well-being optimization of the total assets of a state or nation. This would require a cross-disciplinary approach to economic well-being analysis and an expansion of modern accounting practices to account for a broader suite of assets (human, social and natural capital), using well-being impact indicators and a well-being bottom line to assess the long-term sustainability of businesses, enterprises and government organizations. The purpose of business and finance would become “doing well by doing good.”

Since my first book, *The Economics of Happiness: Building Genuine Wealth*, was published by New Society in 2007, I have promoted the ideas and tools for this new economy of well-being in Canada, the United States, China, Bhutan, England, the Netherlands, Austria, Tahiti, the Vatican and several First Nations (Indigenous communities) in Canada. Many political leaders are intrigued with the ideas but naturally ask, “Where has this been applied successfully before?” Like any paradigm shift, it is in the trials, tribulations, successes and failures that the practical

aspects of this new economic model emerge. This book contains some of the stories about my experiences, whether at a large, national scale as in China or in a small First Nation community of three hundred in Canada.

One of my favorite stories is the first time I had a chance to pitch the economy of well-being concept to the World Economic Forum, in 2011. This forum is held every year in Davos, Switzerland, and brings together the world's leading economic thinkers, politicians and business people. My friend and colleague Toby Heaps (CEO of Corporate Knights Inc. and Clean Capitalism) called me one evening in January 2011 from Toronto's Pearson International Airport. He told me that he was co-hosting a dinner gala at the Forum and asked if I could prepare a short ideas paper on natural capital and the economics of well-being for billionaire George Soros, Deutsche Bank vice-chairman Caio Koch-Weser and Jim Balsillie, then CEO of Research in Motion (RIM), makers of Blackberry. My proposal encouraged Soros and Koch-Weser to consider a new economic paradigm and financial architecture based on an integrated genuine wealth model focused on well-being. I reasoned that several nations and communities were already making prudent steps toward developing well-being indicator systems, building economies of well-being and focusing on happiness as an objective of economic development.

Soros, a shrewd financial capitalist, currency trader and philanthropist, responded to my proposal with the following words: "I am on board with the fundamental importance of the genuine wealth idea, but there is a lack of sentiment that a framework for more holistic wealth is ready for prime time." Deutsche Bank's Caio Koch-Weser was intrigued with the ideas and offered to be a "sherpa" of a focused set of material placed in the right political hands at the forthcoming G20 summit. Five years have now passed since he encouraged me to prepare a road map to a new economic future. This book is that road map.

In a letter to his grandchildren, British economist John Maynard Keynes (who gave the world Keynesian economics and GDP accounting during the time of the Great Depression) expressed a

compelling vision for our economic future. He noted that he saw a future in which we would once again ponder the real meaning of virtue:

I see us free, therefore, to return to some of the most sure and certain principles of religion and traditional virtue—that avarice is a vice, that the exaction of usury is a misdemeanor, and the love of money is detestable, that those walk most truly in the paths of virtue and sane wisdom who take least thought for the morrow. We shall once more value ends above means and prefer the good to the useful. We shall honour those who can teach us how to pluck the hour and the day virtuously and well, the delightful people who are capable of taking direct enjoyment in things, the lilies of the field who toil not, neither do they spin.²

What would Keynes offer the world today—a world of chronic and unsustainable levels of financial debts which can never be repaid? How would he respond to my proposal that a more stable and resilient economic future can be secured by ensuring that the true wealth and assets of all nations are wisely managed to achieve the highest possible well-being outcomes for the greatest number of human beings?

Moreover, can the creation of money be aligned with the goals of the highest and best use of the aggregate assets of nations for maximizing a well-being return on investment, without the unnecessary and hidden burden of compound interest on debt-money? What if money creation and monetary policies were linked to the goals of improving well-being? Could money be created by public banks backed 100% by the real and verifiable assets of our communities, thereby alleviating the high cost of compound interest hidden in the current debt-money economy? How would a new financial system operate if it were based on maximizing well-being rather than simply GDP or financial profits? How would we measure progress in terms of the conditions of well-being in our communities and in the natural environment?

The financial crisis of 2008 revealed the vulnerability of the world's financial system to near collapse. In 2017 the world's economy is even more unstable as total outstanding debts rise exponentially. Big New York-based banks (too big to fail) were bailed out with trillions of new debt money that now exacts an even higher and hidden toll on average American households. US Federal Reserve statistics reveal that the average American household earning \$55,000 will spend roughly half of their income on interest costs hidden in the prices of all goods and services; these compound interest costs are the result of a total US debt load of \$66 trillion, which grows exponentially. Meanwhile, real household incomes remain stagnant, many live paycheck-to-paycheck, financial wealth is concentrated in fewer pockets, overall self-rated happiness declines, many youth and low-income and middle-class American households despair about their future, and the overall conditions of well-being for millions continue to fall.

Is there a way out of this economic straitjacket? Is there a cure to what appears to be the cancer state of financial capitalism?

This book is meant to engender hope that a dark age ahead can be avoided and the current system of economic malaise transcended with a more compelling economic future based on the goal of well-being. Follow me to discover the geography of economic hope from New York to London, from Shanghai to the Hague, from rural Alberta to the paradise island of Tahiti and the ancient longhouse of the Onondaga Iroquois Nation in upstate New York. Learn why I believe the Iroquois matrilineal hereditary governance structure and wampum (shell-based money system) that inspired George Washington and Benjamin Franklin to envision the United States of America might again be the spark of a new economy. Learn how the tiny Buddhist Kingdom of Bhutan is adopting the Gross National Happiness measure of progress and how many Canadian communities are adopting a new Index of Well-Being. Learn how a new generation of impact investment bankers and modern public banks are reinventing the world of finance and banking and creating a new financial architecture

that could underpin the economy of well-being and solve some of the world's most longstanding challenges, such as poverty and climate change. May these examples and ideas for building a new economy of well-being bring the world hope.

Notes

1. M. E. P. Seligman. *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press, 2002.
2. John Maynard Keynes. "Economic Possibilities for our Grandchildren." John Maynard Keynes, *Essays in Persuasion*, New York: W. W. Norton, 1963, pp. 358–373.



CHAPTER 1

Reclaiming Economics for Happiness

*Happiness is the meaning and the purpose of life,
the whole aim and end of human existence.*

— Aristotle

*One must make a new system
that makes the old system obsolete.*

— Buckminster Fuller

Reclaiming the Language of Economics

Economics and the gospel of economic growth have failed humanity when it comes to delivering the well-being we all desire: to live happy and meaningful lives. The economics of eternal growth has lost touch with the original Greek meaning of the word economy (*oikonomia*), which referred to the wise management of the household. Instead, genuine economics—a concern for the well-being of the household—has been usurped by a culture of hedonistic materialism and love of money. Aristotle argued that *chrematistics*—the art of getting rich, or the science of making and accumulating money—was an unnatural activity that dehumanized those who practiced it. He condemned the practice of making money from money, stating unequivocally, “The trade of the petty usurer is hated with most reason: it makes a profit from currency itself, instead of making it from the process which currency was meant to serve. Their common characteristic is obviously their sordid avarice.”

While the word *usury* seems to have faded from the consciousness of modern times, Pope Francis seems to agree with Aristotle and the 14th-century theologian Thomas Aquinas¹ in condemning it:

I hope that these institutions may intensify their commitment alongside the victims of usury, a dramatic social ill. When a family has nothing to eat, because it has to make payments to usurers, this is not Christian, it is not human! This dramatic scourge in our society harms the inviolable dignity of the human person.²

Today modern usury happens whenever private banks make new loans, creating new money (*ex nihilo*: out of nothing) as simple bookkeeping entries in their ledgers unattached to real assets. The costs to all of society are the interest charges on each loan. The totality of all loans created primarily by private banks in every economy constitutes the total debt-money supply of nations.

Returning the world to the original vision of economics as the Greeks defined it will require a serious examination by economists of the evidence that usury—the creation of money as debt and the charging of interest—has indeed decimated the well-being of millions of households and made the pursuit of genuine happiness difficult, at best.

As an adjunct professor of corporate social responsibility and social entrepreneurship at the University of Alberta's School of Business, I would ask my business students, What is an economy for? What is the real purpose and role of business in an economy? What is the role and responsibility of business in a society focused on returns to well-being? Why do we measure progress the way we do? Why is it that despite rising levels of gross domestic product (GDP), we have diminishing levels of self-rated happiness in the US, as well as the erosion of many well-being conditions? If the promise of a rising tide of continuous economic growth was to lift the prospects of every American household, why has it failed to do so in the land that espouses the pursuit of happiness as its highest aspiration? How is it that governments operate

without a complete balance sheet that shows the assets and liabilities of the human, social, natural and built assets of the state or nation? What if the progress of our economies were measured in terms of the conditions of well-being and self-rated happiness that psychologists tell us contribute most to our genuine happiness and societal well-being, including the strength and joy of our relationships?

Happiness: Well-Being of Spirit

It is worth repeating that Aristotle defined the word *happiness* in terms of the Greek word *eudaimonia*, which translates literally into “good spirit.” Another translation is “human flourishing” or “the good life.”³ I would define happiness as “the well-being of one’s spirit or soul.” The Oxford Dictionary defines well-being as “the state of being comfortable, healthy, or happy.” Happiness is much more than a pleasant or contented mental state. Happiness is a mental or emotional state of well-being that can be defined and measured as a range of emotions from contentment to intense joy. Joy itself is perhaps the ultimate aspiration—a state of bliss. Aristotle said that happiness results from a good birth, accompanied by a lifetime of good friends, good children, health, wealth, a contented old age and virtuous activity. The Buddha agreed with Aristotle that the purpose of our lives is to be happy.

Ultimately, Aristotle defined *eudaimonia* as the rational activity of the soul in accordance with virtue in a complete life. It is the basis of Aristotle’s ethical and political theory, the goal of all action, which can be attained through virtue. For this reason, Aristotle’s ethics and politics were heavily focused on virtue.⁴ This was also true of Benjamin Franklin and Thomas Jefferson; Jefferson noted that without virtue one cannot be happy.

Imagine if Thomas Jefferson, who penned the *US Declaration of Independence*, had replaced the word *happiness* with *well-being*, as follows: “We hold these truths to be self-evident; that all men and women are created equal and independent, that from that equal creation they derive rights inherent and inalienable, among which are the preservation of a good life, and liberty, and the pursuit of well-being.”⁵

What has become of virtue in our modern *politikos*? How would the US measure its progress through this new aspirational lens of well-being, including both spiritual and other aspects of well-being and a good life?

A New Index of Well-Being

Since the 1970s, some progressive economists (along with Robert Kennedy in 1968) have been advocating for a new economic measure of welfare to either replace or modify GDP and national income accounts with a new measure or index of progress. It wasn't until 1996 that the San Francisco-based economic think tank Redefining Progress produced a new measure of sustainable economic well-being, which they called the Genuine Progress Indicator (GPI). The GPI was inspired by the seminal 1989 work *For the Common Good* by Dr. John Cobb Jr. (one of the two most important American theologians of the 20th century, from Claremont School of Theology in California) and Dr. Herman Daly (an ecological economist and advocate for a steady-state economy from the University of Maryland).⁶

In 2004 positive psychologists Dr. Ed Diener (University of Illinois) and Dr. Martin Seligman (University of Pennsylvania) proposed the development of a national well-being accounting system and index for the United States. This system of well-being accounts would systemically assess key variables of well-being such as trust, belonging, engagement, meaning and life satisfaction. This would be a subjective well-being index based on the perceptions of Americans. However, to date no such national well-being accounting system or index has been adopted by the US or any US state or city, with a few exceptions, including the city of Santa Monica, California, which has adopted a Wellbeing Index to measure and actively improve the state of the community.⁷

Nonetheless, the US Gallup-Healthways Well-Being Index, which claims to be the “Dow Jones of Health,” is produced daily. The Index tracks well-being aspects of the lives of a sample of 1,000 Americans each day. The methodology underlying it uses the World Health Organization's definition of health as “not only

the absence of infirmity and disease, but also a state of physical, mental, and social wellbeing.”⁸ The Well-Being Index includes citizen self-ratings of economic confidence, work satisfaction, overall happiness, hope and other variables. While Gallup-Healthways reports on state-level well-being, there is still no national well-being index we might contrast with changes in the US GDP.

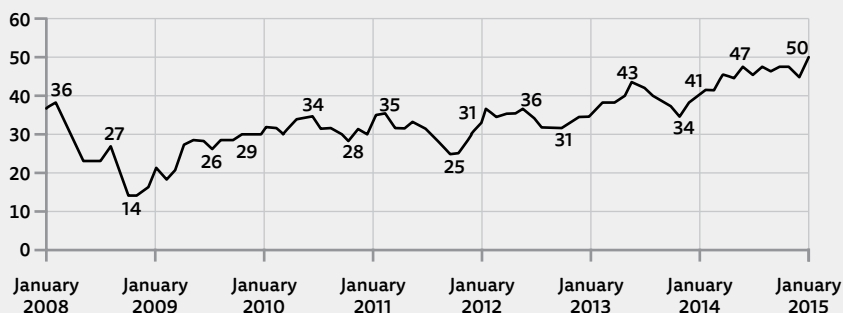
The happiest state in the union is consistently Hawaii, which, according to Gallup-Healthways, reached the top spot once more in 2015, for the fifth time since they began tracking well-being in 2008. Alaska is typically ranked second, while West Virginia and Kentucky consistently rank the lowest and second-lowest in well-being nationally.

One of the more interesting trends involves Americans’ perceptions of their standard of living (is it getting better or worse?) and whether they feel their economic future is bright or dark. The graph suggests that a growing number of Americans feel satisfied with their current standard of living and are more hopeful about their economic future compared with 2008, the year of the financial crisis.

1 Gallup US Standard of Living Index, Monthly Averages

The Standard of Living Index is based on a composite of these two questions:

1. Right now, do you feel your standard of living is getting better or getting worse?
2. Are you satisfied with your standard of living, all the things you can buy and do?



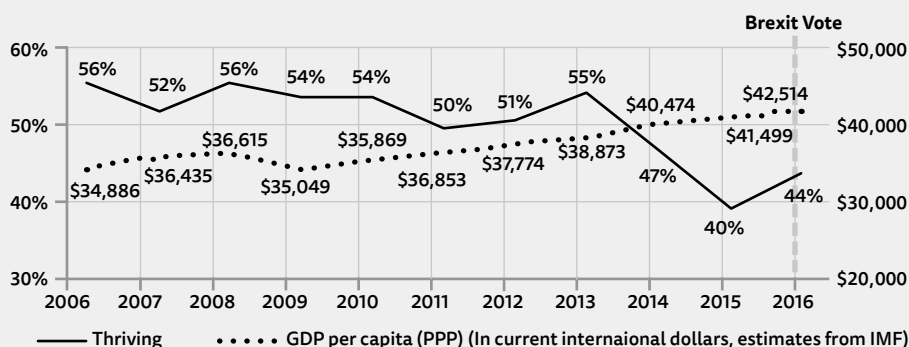
SOURCE: gallup.com/poll/180449/standard-living-index-climbs-highest-years.aspx.

However, a different picture emerges in the United Kingdom. According to a UK Gallup poll, UK citizens' perceptions of "thriving" or happiness show a marked decline since the Brexit referendum vote of June 23, 2016, which led to the UK planning to leave the European Union. In the two years leading up to Brexit, Gallup found that the percentage of people who were "happy" (or "thriving") was already in dramatic decline. In fact, the 15-percentage-point decline in the percentage of people rating their lives positively enough to be considered thriving was so dramatic it remains among the largest two-year drops in Gallup's history of global tracking.⁹ This was in spite of a 2% increase in the country's gross domestic product and a relatively low unemployment rate of 4.9%.

In the United States, levels of happiness have been in decline since the early 1950s, when the first happiness polls were taken. The levels of very happy and happy people reached a near recorded low in 2016, with only 31% of Americans feeling very happy compared with 53% in the early 1950s (see Figure 3).¹⁰ Yet at the same time, real (inflation-adjusted) GDP per capita has continued to rise.

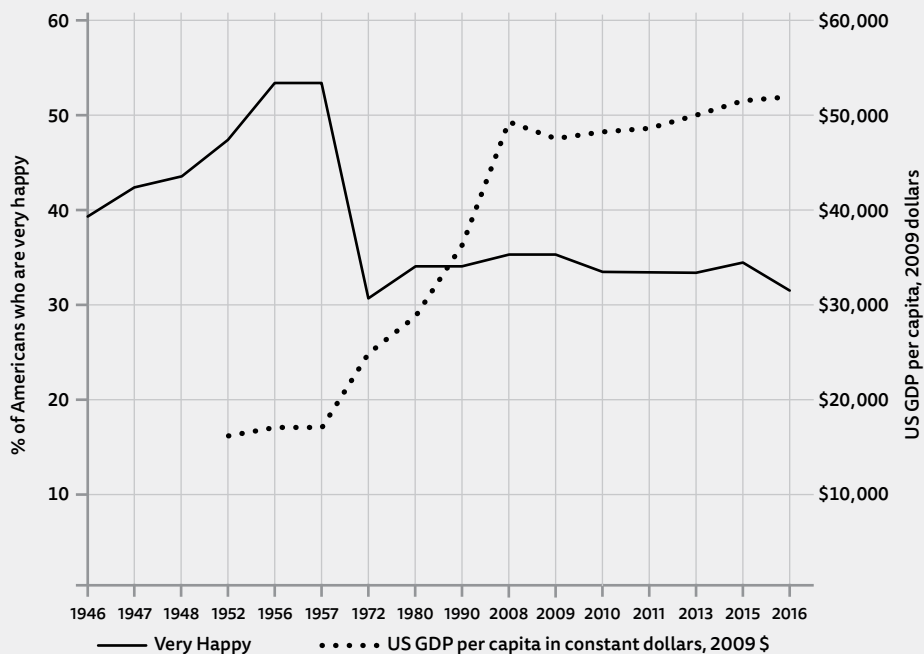
The Harris Poll® Happiness Index,¹¹ which uses a series of questions to calculate Americans' overall happiness, found that in 2016, fewer than one in three Americans (31%) were very happy,

2 United Kingdom GDP and Happiness



SOURCE: Gallup World Poll and UK GDP statistics.

3 US GDP Per Capita versus Happiness, 1946–2016, Various Years



SOURCE: Data for US happiness is from the Harris Happiness Index Poll 2008–2016. Previous happiness survey results are from various sources including Oswald J. Andrew, "Happiness and Economic Performance." *The Economic Journal*, 107, November 1997, 1815–1831. US GDP per capita is from the US Bureau of Economic Analysis data.

down from just over one in three (34%) in 2015. At the same time, however, about eight in ten US adults (81%) say they are generally happy with their life right now, suggesting that people may overstate how happy they really are.

Kathy Steinberg, managing editor of the Harris Poll, points out that as part of the survey, pollsters don't ask "Why do you feel this way?" or "What has changed?" But the numbers do show that certain groups of people are happier. For example, women tend to be happier than men. People with annual income between \$50,000 and \$74,999 are actually happier overall than people who earn between \$75,000 and \$99,999. People with a college degree are happier than those without. African-Americans tend to be slightly happier than Whites and Whites happier than Hispanics. Seniors

(people 65 and up) are the happiest age group, and married people are happier than unmarried people. Having a child under the age of eighteen has no statistical impact on happiness, while people who live in the suburbs are happier than others. However, Steinberg cautions interpreting these happiness results. The Happiness Index, she notes, reveals the “general principle that people self-report that they’re happier than they may actually be.”¹²

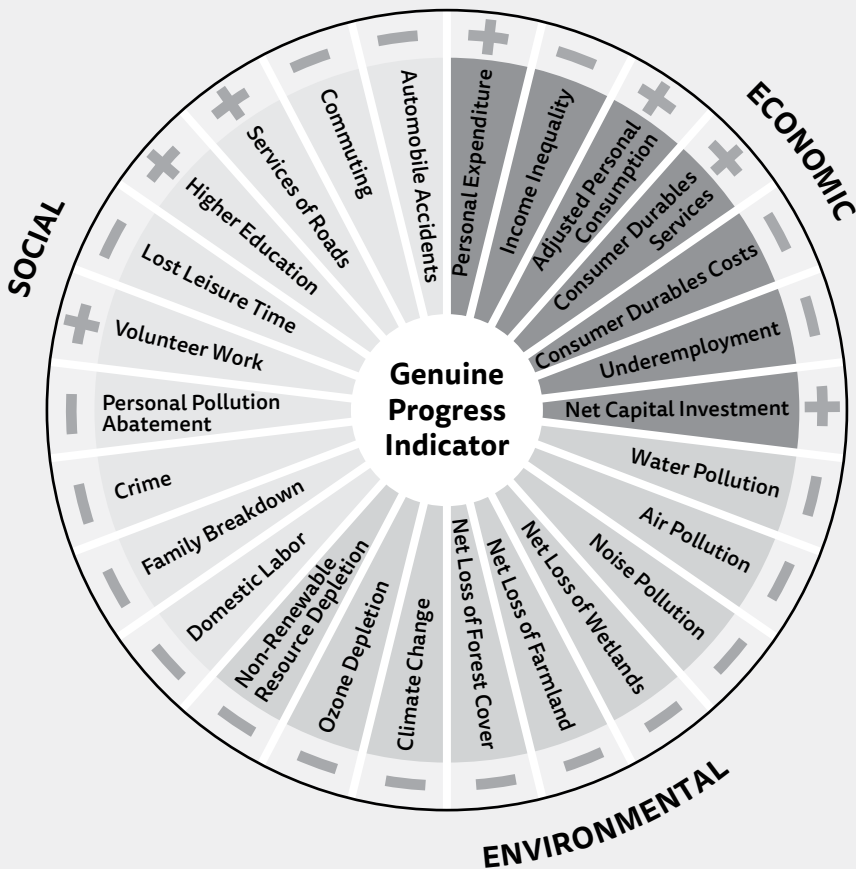
Measuring Well-Being Objectively

What about a measure of objective well-being? New measures of progress, including the Genuine Progress Indicator and the Canadian Index of Wellbeing (CIW), have emerged in the past ten years. I will discuss the CIW later in the book; a 64-indicator objective index of well-being, inspired, in part, by the earlier work on the GPI.

The US GPI provided a reasonable response to Bobby Kennedy’s 1968 challenge to the GDP (Gross Domestic Product)—that it needed to be revised to measure the economic activities that actually contributed to a good life and to well-being, instead of simply measuring the amount of money exchanging hands in the economy. It was developed by economists to provide a broad measure of economic well-being that could be compared with GDP and other traditional economic indicators. The GPI measures the overall well-being of a nation, while the GDP measures only the money value of all economic output, or production of the economy. It starts with GDP (the gross value of all goods and services produced/consumed in an economy), then subtracts harmful things like crime, pollution, illness, loss of farmland and wetlands, declining water quality and the negative impact of income inequality. It also adds the unaccounted and non-money value of unpaid work in the home and volunteering in the community (see Figure 4).

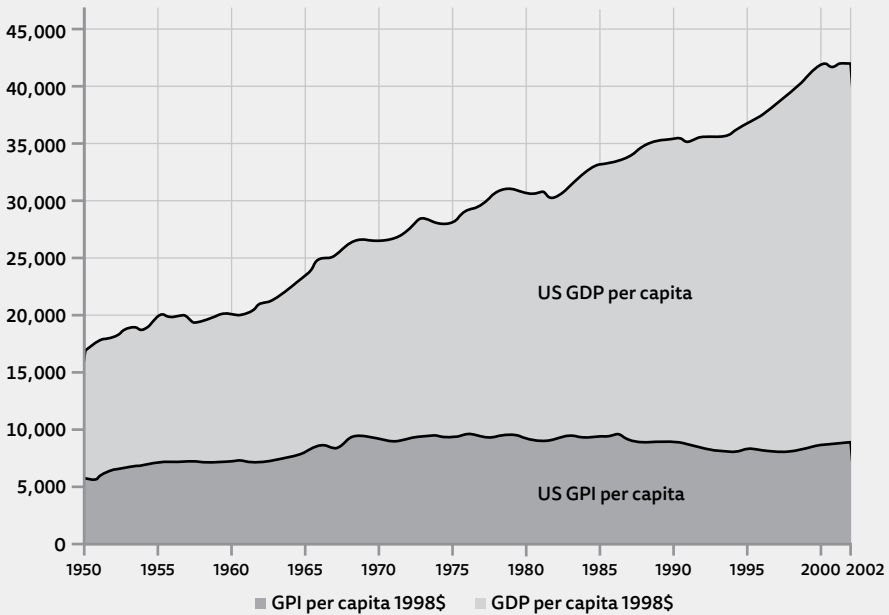
The US GPI-GDP graph (Figure 5) clearly shows that economic well-being peaked in the United States about the time of the OPEC oil crisis in 1973. The two-year period that followed (1973–75) was

4 The Genuine Progress Indicator: Indicators of Well-Being



a formative tipping point for the US and other world economies. In 1971 President Richard Nixon unilaterally cancelled the direct convertibility of the US dollar to gold. Without a gold standard to temper debt-money and economic growth, there was a surge in private-bank-created debt money (see Chapter 10). For example, the ratio of US total *debt* to GDP between 1950 and 1971 averaged between 129% and 151%; as I write this (October 2017), it now stands at 364% and continues to climb.¹³ Interest costs embedded in the economy are a significant (although unaccounted

5 US GDP versus US Genuine Progress Indicator, 1950–2002



SOURCE: Redefining Progress, Oakland, California.

for) contributor to US GDP and the second-largest expense item (though not fully accounted for) in the US federal government budget, higher than defense and second only to health care.¹⁴ The burden of interest costs associated with debt-money is cutting off the oxygen of the US economy and American households.

It appears that 1974–76 was a key tipping point for the United States in terms of a number of well-being conditions; this was also true of other nations. The US GPI peaked in 1976 and had declined 7.7% by 2002 (the last time the GPI was updated), despite a 71% increase in real (inflation-adjusted) GDP per capita. What happened at this key juncture in US history? The GPI provides a clue. Many factors—including income inequality and environmental and social costs related to economic progress—have been rising faster than the consumption-based GDP. In addition, soaring interest rates and rising levels of both private and public debt are

consuming ever-increasing amounts of households' disposable income and eroding the spending power of governments.

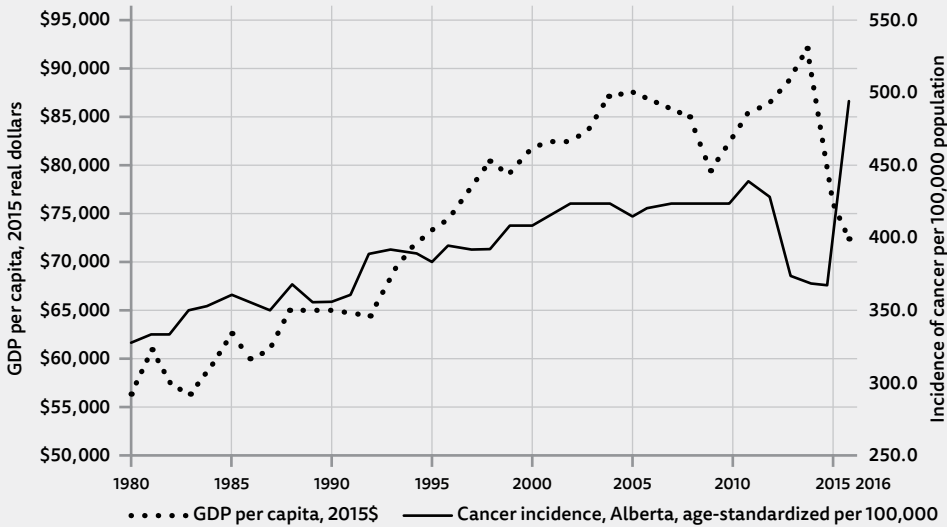
In the 2001 Alberta GPI project, a research project I led with the Pembina Institute, Canada's first well-being index showed trends in 50 indicators of well-being for the province of Alberta over a 40-year period (1961–2001). The results showed that the overall state of well-being in Alberta had declined overall since the early 1960s. There were some expectations—including higher life expectancies and rising household incomes—but key areas of diminished quality of life include rising income inequality and levels of household debt, increased levels of suicide and problem gambling, obesity, increases in the time required to earn a sufficient income and the greater ecological footprints of households. Similar to the US GPI, it seemed that the years 1973–74 represent a major tipping point in well-being. This was particularly strange since Alberta benefited from the OPEC oil crisis of 1973, riding a wave of rising oil prices thanks to its abundant oil and natural gas resources. These trends showed that the economists' belief that “a rising tide of economic growth (measured by GDP) would lift all economic boats” was not a reality for most Albertans.

While the GPI offers one of the best alternative measures of well-being to the GDP—and there have been recent attempts to adopt the GPI at the state (Maryland, Oregon, Vermont) and provincial levels (Alberta, Nova Scotia) and the Canadian Index of Wellbeing nationally—there remains no firm political commitment to adopt this common-sense alternative measure of progress, either in the United States or Canada.

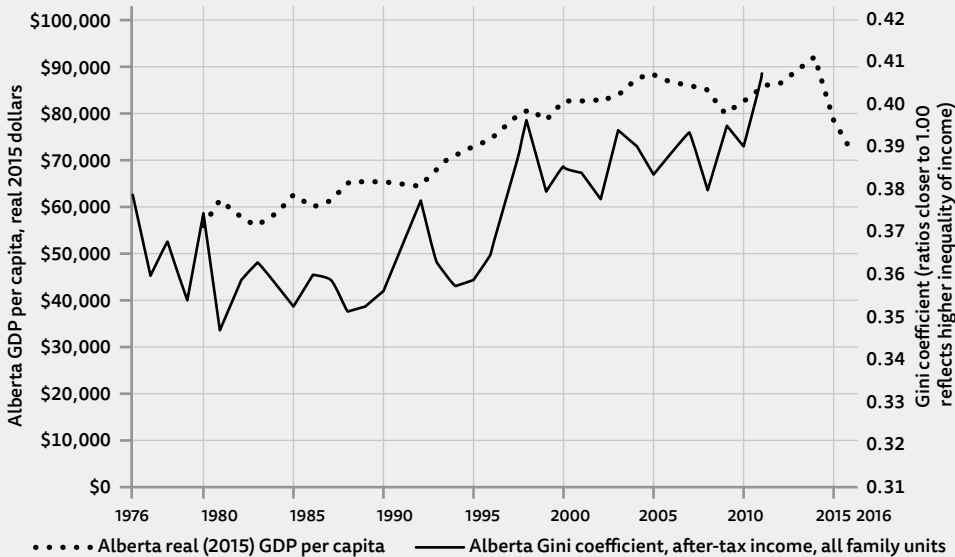
Alberta's Economic Growth, Disease and Income Inequality

Two of the more disturbing statistics I have tracked since completing the Alberta GPI in 2001 are the correlation between the incidence of cancer and both GDP and income inequality. Between 1981 and 2016, the incidence of all cancers (the rate per 100,000 people) increased by 51.2% for both males and females. By comparison, Alberta's real per capita GDP increased by 28.7%

6 Alberta real GDP Per Capita versus the Incidence of Cancer per 100,000



7 Alberta GDP per Capita versus Income Inequality (Gini Coefficient)



over the same period. Ironically, it seems that more cancer is good for Alberta's economy; indeed, the more people with cancer, the more we spend on cancer treatment, and the more GDP grows. Yet cancer brings considerable unhappiness to our lives, which is not measured in GDP terms.

Similar trends were found when comparing income inequality and GDP. Income inequality is a good measure of social capital or social cohesion: societies with less income inequality (using a measure called the Gini coefficient) tend to be happier, more trusting and more cohesive. According to Figure 7, income inequality has been rising since 1981 in Alberta, which is second only to British Columbia among Canadian provinces in terms of the gap between rich and poor. Alberta's Gini coefficient increased 9.1% between 1981 and 2011, while real GDP per capita (2015 dollars) increased 53.5%. The rise in income inequality was statistically correlated with GDP. Why is inequality important to happiness?

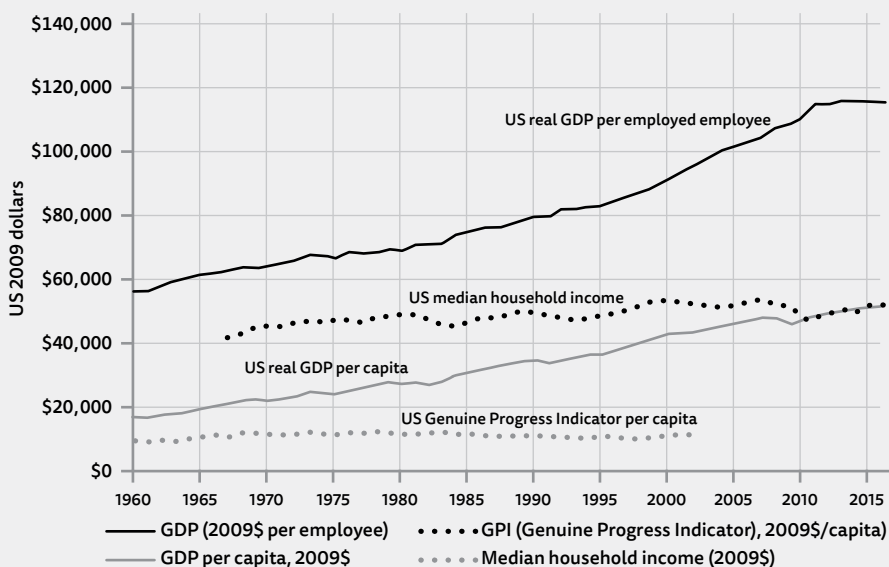
According to epidemiologists Richard Wilkinson and Kate Pickett in *The Spirit Level: Why More Equal Societies Almost Always Do Better*, 2009, evidence shows that inequality in societies leads to regrettable erosion in social capital. The authors found that inequality causes shorter, unhealthier and unhappier lives; increases the rates of teenage pregnancy, violence, obesity, imprisonment and addiction; destroys relationships between individuals born in the same society but into different classes; and functions as a driver of consumption that depletes the planet's resources. They also show that for virtually every measure of quality of life there is a strong correlation between a country's level of economic inequality and its social outcomes. In almost all cases, Japan and the Scandinavian countries are at the favorable "low" end of inequality and the United Kingdom, the United States and Portugal are at the unfavorable "high" end, with Canada, Australasia and continental European countries in between. The bottom line is that societies tend to be happier when there is a more equal distribution of money, income and financial wealth.

Exposing the Myth of Productivity

Economists love to talk about the importance of the productivity of nations as a key measure of progress and success. Most of us have no idea what productivity is or how economists measure it. In simplified terms, productivity is measured as the ratio of economic output (GDP) to either the number of employed persons or the number of hours worked in the economy. The higher the GDP per capita the more successfully an economy is presumed to be performing. But what does productivity have to do with the well-being of individual workers, their workplace or their family well-being? How should we measure these attributes of work?

The following graph (Figure 8) shows the trends in US productivity, GDP per capita, wages and salaries per employee and the US Genuine Progress Index from 1960–2016. The graph shows how real GDP per capita (2009 dollars) has risen faster (210%)

8 US Productivity (GDP Per Employee), GDP Per Capita, Salaries and Wages Per Employee and US Genuine Progress Indicator, Indexed 1960=100, Based on 2009 Real Dollars



SOURCE: Data from the US Bureau of Economic Analysis and Redefining Progress (San Francisco).

than productivity (GDP per employed workers in the US), which rose 106%. At the same time, average real (2009 dollars) median household income rose by only 25.5% between 1967 and 2015, from \$41,452 per household in 1967 to \$52,029 in 2015.¹⁵ However a more complete well-being index, the US GPI, rose only 26% over the period 1960–2002, having peaked in the mid-1970s when real wages and full employment were highest.

Statistics thus show that real household income and overall well-being conditions for the average American have not kept pace with economic growth. They also show the value of measuring productivity and progress beyond simply GDP per worker, on a more meaningful basis of changes in the well-being conditions of households.

Measuring Happiness is All the Rage

Since the release of my first book in 2007, there has been an explosion of other books and works on the economics of happiness. In 2009, French President Nicolas Sarkozy formed a commission led by former World Bank chief economist and Nobel Prize winner Joseph Stiglitz, among others, to conceive of a new accounting system for measuring progress and well-being. Sarkozy urged other countries to adopt new measures of economic output, noting that the world has become trapped in a “cult of figures” and “behind the cult of figures, behind all these statistical and accounting structures, there is also the cult of the market that is always right.” Sarkozy’s commission reported that gross domestic product was flawed even as a measure of economic output, failing to account properly for public services or home-based activities. Worse, GDP was often equated with well-being itself and could also create perverse incentives. For example, it included spending on prisons and security systems, implying that more of this was good for society. Stiglitz noted that “what we measure affects what we do.... If we have the wrong measures, we will strive for the wrong things.” The Stiglitz commission proposed the use of objective measures of well-being and subjective indicators of happiness, covering income and wealth, health, education, social

connections and relationships, the environment, insecurity and even political systems.

In November 2010, British Prime Minister David Cameron announced that Great Britain would begin to measure happiness as an alternative and better measure of how the country was doing. Cameron noted that GDP, and thus national income, accounts were no longer up to the job. As part of the National Well-Being Project, the Office for National Statistics would ask citizens to rate their own well-being, including self-rated happiness, anxiety and feelings that life is worthwhile. The first official happiness index was released in 2012. According to Abbie Self, Director of Well-Being, Inequalities, Sustainability and Environment in the UK, the most recent index for 2015–16 showed that “Life satisfaction has increased over the past year, which is what one might expect given the improvements seen in the economy and record high employment during that period. However, what is more surprising is that there is no change over the same time in people’s happiness, anxiety and feeling that what they do in life is worthwhile. This is the first time we haven’t seen year-on-year improvements in these particular measures since we began collecting the data in 2011.”¹⁶

In May of 2011, China’s National People’s Congress (NPC) announced that happiness is now more important to China’s future than increasing GDP. A new five-year plan adopted at the meeting was hailed as a blueprint for a “happy China.”

And in 2012, the tiny Buddhist Kingdom of Bhutan encouraged all nations of the world at the United Nations to adopt a new economic paradigm based on well-being and happiness.

The UN now produces an annual *World Happiness Report*. The fourth annual report of 2017 ranked 157 countries, with Norway (7.537), Denmark (7.522), Iceland (7.504), Switzerland (7.494) and Finland (7.469) making up the top five happiest nations. Canada ranked seventh overall, down one spot from 2015. The United States ranked 14th, the United Kingdom 19th, France 31st, Italy at 48th, Russia 49th and Bhutan (home of the Gross National Happiness index) 97th. Those who thought Bhutan would be the happiest nation on the planet might be surprised that life satisfac-

tion is lower than we might expect; there is no logical explanation for why Nordic countries are happier than the Buddhist nation of Bhutan.

Happiness economists have found that the key factors that differentiate the top ten happiest nations from others include GDP per capita, social supports, healthy life expectancy, freedom, corruption and differences in generosity. Sufficient income (measured in terms of GDP) does matter to a certain level of subjective happiness, but beyond that it is social factors, including healthy relationships, trust and reciprocity, which add to marginal happiness.

According to economist Jeffrey Sachs, one of the co-authors of the *World Happiness Report* along with Canadian economist John Helliwell (University of British Columbia) and Richard Layard (Columbia University), the report aims to measure “the scientific underpinnings of subjective well-being.” Sachs and Helliwell believe it is possible to orient public policy, economic development goals and budgets toward well-being rather than focusing uniquely on maximizing GDP and productivity. I agree and suggest that an even broader suite of well-being and progress indicators be incorporated into governance and budgeting systems for municipalities, states/provinces and nations.

People Prefer Happiness over Wealth

In polls conducted by Gallup, most people around the world rate happiness above material wealth and even health. Positive psychologist Ed Diener found that in the 2010 Gallup poll results for 28 countries, including the United States, China, Hong Kong, Japan and Singapore, happiness was rated most important (8.0 average on a scale of 1 to 9), over wealth (6.8) and slightly higher than health (7.9).¹⁷ This suggests that for most of us, personal happiness remains our highest individual and collective aspiration.

According to Diener’s research, there is less of a correlation between income and levels of happiness and life satisfaction. He compares South Korea with Costa Rica. Table 1 shows that Costa Rica has much higher citizen life satisfaction, more positive

TABLE 1: South Korea versus Costa Rica, Life Conditions

	South Korea	Costa Rica
Household income (US\$ per household)	\$45,000	\$12,800
Life satisfaction (on a scale of 1 to 10)	5.65	7.25
Positive feelings (% who feel positive)	67%	88%
Suicide rate (per 100,000)	24.1 (ranked 10th highest)	7.3 (ranked 124th)

SOURCES: Gallup World Poll, WHO (suicide rates).

feelings toward life and significantly lower suicide rates, despite having household incomes only 28% of that of South Korean households.

Who Are the Happiest Canadians of All?

In a 2010 study, *Does Money Matter: Determining the Happiness of Canadians*, researchers at the Ottawa-based Centre for Study of Living Standards found that the happiest Canadians have a strong sense of belonging to local communities. The sense of belonging was highest in smaller communities, rural areas and in Atlantic Canada. Quebec had the lowest sense of belonging, while Newfoundland had the highest.

Next in order of importance to the happiest communities was the level of perceived mental health, followed by physical activity levels, stress levels and being married. Communities with more new immigrants and with higher levels of unemployment rated more poorly in happiness. Unemployment is a particularly important driver of unhappiness. This study shows that, since there is sufficient evidence that mental health status, sense of belonging, physical health and stress levels are more significant determinants of happiness than household income, policy makers can focus more on these areas to improve the overall well-being in Canada.

The least important factor contributing to self-rated happiness was household income. The researchers concluded that more money does not translate into happier households. This is consis-

tent with other studies by British economist Richard Easterlin, who found that both within and among nations, happiness varies directly with income but, over time, does not increase when a country's income increases.

Who are the happiest Canadians? In 2013, Statistics Canada showed that Prince Edward Island ranked first and Saskatchewan second, while my home province of Alberta ranked seventh in self-rated life satisfaction. In terms of cities, statistics for 2009–13 show that Saguenay (Quebec), Trois-Rivières (Quebec) and St. John's (Newfoundland) were the three happiest cities in Canada (Table 2). Vancouver and Toronto ranked last overall.

How efficient are Canadians in optimizing happiness for every dollar of household income? A simple ratio of life-satisfaction ratings for every \$10,000 of household income shows that the top three Canadian cities optimizing happiness are Trois-Rivières (Quebec), Abbotsford (British Columbia) and Sherbrooke (Quebec). Calgary and Ottawa ranked last overall, despite having the highest median household incomes in Canada: \$101,260 and \$101,070 respectively.

Happiness as the Ultimate Objective of Economic Development

What if happiness and well-being were the ultimate goals of economic development policies in Alberta, Canada and all nations? What if Canada's prime minister or Alberta's premier built their political mandates on creating a flourishing economy of well-being modeled after Bhutan's Gross National Happiness? What if US and Canadian city councils were to adopt economic development objectives that are linked directly to improving well-being conditions, as the city of Victoria, British Columbia, has done recently?¹⁸ The desired well-being outcomes for Victoria include increasing connections, belonging, trust and community cohesion. These social assets could be measured and reported on the city's balance sheet.

What if all political parties in Canada, the United States, Europe and Asia were to replace the current paradigm of economic

TABLE 2: Life Satisfaction of Canadian Cities, Ranked, Average: 2009–2013; scale: 1–10

Rank	City	Average Life Satisfaction (1–10)	Total Household income
	Canada (Average)	7.97	\$76,550
1	Saguenay	8.25	\$75,360
2	Trois-Rivières	8.18	\$68,430
3	St. John's	8.17	\$91,100
4	Greater Sudbury	8.17	\$86,080
5	Quebec City	8.14	\$84,160
6	Saint John	8.13	\$73,600
7	Sherbrooke	8.11	\$70,710
8	Thunder Bay	8.10	\$82,690
9	Moncton	8.05	\$73,550
10	Ottawa-Gatineau	8.05	\$101,070
11	Saskatoon	8.02	\$90,840
12	Kelowna	7.99	\$76,870
13	Montreal	7.98	\$73,250
14	Halifax	7.97	\$82,510
15	Oshawa	7.96	\$87,400
16	Calgary	7.96	\$101,260
17	London	7.95	\$75,980
18	Regina	7.94	\$93,670
19	Kingston	7.94	\$82,950
20	St. Catharines-Niagara	7.91	\$69,500
21	Brantford	7.90	\$71,630
22	Hamilton	7.90	\$82,290
23	Winnipeg	7.89	\$77,770
24	Abbotsford-Mission	7.89	\$68,310
25	Kitchener-Waterloo	7.89	\$82,160
26	Peterborough	7.89	\$73,280
27	Victoria	7.89	\$84,500
28	Barrie	7.88	\$80,780
29	Edmonton	7.87	\$98,480
30	Guelph	7.86	\$88,700
31	Windsor	7.85	\$73,440
32	Toronto	7.82	\$72,830
33	Vancouver	7.81	\$73,390

SOURCE: Statistics Canada. 2013. General Social Survey, 2009 to 2013, and Canadian Community Health Survey, 2009 to 2012. Annual Income for Census Families. Table 111-0009.

growth with a more compelling vision of improving the well-being bottom line? A more enlightened form of capitalism and governance based on optimizing the well-being returns on investment of a nation's five strategic assets is possible. It's a matter of volition. Why are these ideas for building common-sense economies of well-being not the central theme of discussions at the World Economic Forum or the G7/G20 gatherings? Why are these ideas not filling the pages of *The Economist*?

From Financial Capitalism to Well-being

What if the current dominant free-market financial capitalism were replaced with a new genuine wealth and well-being capitalism? If financial capitalism and economic development are characterized by the primacy of profit maximization and GDP growth, well-being capitalism would be characterized by economic development that increases the well-being of every citizen. Well-being returns, or impacts from investments in the human, social, natural and built or manufactured assets of a community, can be measured and thus incorporated into the annual budgets of all governments and corporations.

If financial capitalism is characterized by the lending of money at interest and the making of profits as part of the roundabout process by which it grows and hedges against inevitable risks, well-being capitalism would be characterized by creating money, without interest charges, in sufficient supply backed by the well-being benefits and utility of the assets of a community or nation. Ensuring the resilience of the human, social, natural and built assets of society would become the ultimate goal of governments.

Drowning in Debt

It has been eight years since the near death of Wall Street with the collapse of the financial markets in 2008. Not much has changed since then. The fundamental flaw of financial capitalism is in the very nature of money and how it is created. Nearly 98% of all money in our economies is debt-money, created primarily by private banks when they issue loans. While fractional reserve

banking and money creation has been one of the greatest benefits of financial capitalism, fueling unprecedented economic and material prosperity, it comes at an enormous and hidden cost to all of society, including the environment.

The last available US Federal Reserve statistics, for the second quarter of 2017, show total debt outstanding in the United States of \$68.0 trillion (household, business, government and foreign debt) or an estimated \$530,064 per US household.¹⁹ By its very definition, \$68 trillion in total debt outstanding is the actual money supply of the United States, with only \$1.5 trillion in paper currency in circulation in the US and globally. Therefore, paper money makes up only 2.18% of total money supply of the US. The US debts are broken down by sector as follows:

TABLE 3: US Debt Outstanding by Sector, 2017 (3rd Quarter)

Sector	Debt Outstanding (US\$ billions)
Households (mortgages)	\$10,009.9
Households (consumer credit)	\$3,781.7
Business	\$14,061.8
Federal Government	\$16,463.2
State and Local Government	\$3,042.7
Domestic Financial Sector	\$15,888.6
Foreign debt	\$3,493.8
Total Debts of the United States	\$68,017.6

SOURCE: US Federal Reserve; data can be accessed December 8, 2017 [federalreserve.gov/releases/z1/current/html/d3.htm](https://www.federalreserve.gov/releases/z1/current/html/d3.htm) Table D3. Debt Outstanding by Sector.

While the US Federal Reserve statistics estimate the US national (federal) debt at \$16.5 trillion, US federal budget estimates projected it would reach over \$20 trillion in 2017 or over 106% of US GDP.²⁰ In addition to financial debts, unfunded liabilities include social security liability (over \$15.9 trillion) and Medicare liability (over \$27.7 trillion).

The problem with debts is that they never get repaid. Instead they compound exponentially. The total US debt has been doubling roughly every six to ten years since World War II. In 1981, average ten-year Treasury yields averaged 13.92%, and total

US debt stood at \$5.2 trillion. Within a little over six years US total debt had doubled, to over \$11.5 trillion in 1988. It then took ten years to double again, reaching \$23 trillion in 1998. Before the financial collapse in 2008, the total US debt was growing at an average rate of 8.9% per annum. Total debt outstanding actually fell by 0.3% in 2009 following the 2008 financial crisis, for the first time since 1947. Yet since 2010, debt money has resumed, with a 4.0% increase in total debts in 2016. While the US is fortunate to have record low interest rates, the fact that the total mountain of debt continues to grow means the cost of interest to American households and governments will continue to grow even larger, consuming an even larger portion of government and household budgets. Again, most are oblivious to this hidden cost of interest. Moreover, as debts continue to grow, there is continuous pressure for more economic (GDP) growth, which is necessary to service the interest costs of exponential debt growth. Debt is like a terminal cancer cell mass in the body of the economy. Unfortunately, there are currently no solutions or cures for the debt-money cancer that threatens virtually every economy on earth, from the wealthiest economies like the US and Canada all the way down to the poorest.

Debt and economic growth are directly related. When I run statistical correlation analysis between US GDP growth per capita and US total debts per capita, an extremely high (0.988) statistical correlation is found. The economy has to keep growing simply to service the exponentially growing mountain of outstanding debt, because of the increasing burden of interest costs associated with an ever-increasing mountain of unpaid debt. Moreover, every resource of the federal government is being utilized to spur more economic growth through loan guarantees, subsidized mortgage rates, low down payments, easy terms, tax credits, secondary markets, deposit insurances, etc. The reason for this policy is that the only way to make the consequences of the interest system bearable for the large majority of the population is to create a level of economic growth that follows the exponential growth rate of money—a vicious circle with an accelerating, spiraling effect.

According to US Federal Reserve statistics, the country's total outstanding debt per capita rose a staggering 5,000% between 1960 and 2016 (in 2016 dollars), compared with GDP per capita, which rose 1,876% (see Figure 9 in the following section). These debts came from both the private and public sector, the largest share coming from the private sector. Total outstanding debt has thus been rising faster than GDP and much faster than household income or wages, which have been virtually stagnant over the past thirty years.²¹

Using publicly available consumer/household debt statistics, business debt figures and public debt servicing costs, I have estimated a very conservative average total debt servicing cost of over \$3.357 trillion in 2016, based on a very conservative 5.08% interest charge on the total \$66 trillion in US debt: household/consumer debt (mortgages, students loans, credit cards), business debt (including business loans, farm credit), government debt (for municipal, state and federal government) and foreign debt (owed to foreigners or other nations).²² It is very likely that the average interest rate on total US debt is higher than 5%. Yet even at these conservative levels, the total interest charges alone would equate to at least 18% of US GDP in 2016 (estimated at \$18.560 trillion).²³ Compound interest in the economy acts like an invisible wrecking ball undermining the overall well-being aspirations of nations.

The Inconvenient Truth: How the Hidden Costs of Debt Are Killing American Happiness

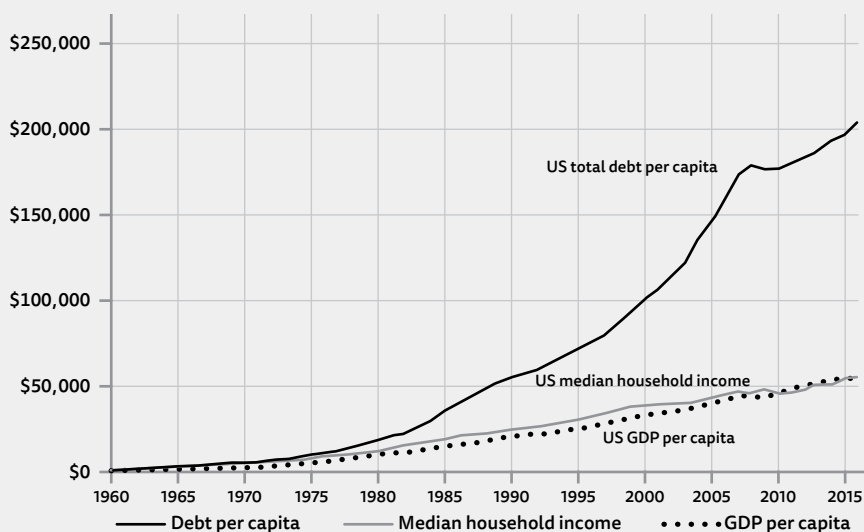
Figure 9 shows the trend in average per capita US debt from 1960 to 2016 compared with US GDP per capita and the median household income of American households (1967–2015); all data are reported in 2016 dollars. The graph shows the growing burden of debt on American lives. In 1967, total US debt per household was roughly \$21,708, or 357% of median household income of \$6,087; in 2017 total outstanding US debt in the economy was projected to reach over \$530,000, or 907% of median household income of an estimated \$58,455 per annum. The same is true of total debt to GDP; in 2016 the US total debt to GDP ratio was 364%, a little

lower than the peak of 381% in 2010, after the US financial crisis. The increase in total debt to household income is staggering. The burden these debts impose on all Americans is even more remarkable.

Since the cost of interest charges can be found in the prices of all goods and services, including government programs, services and taxes, every American is paying interest costs for everything they purchase. For, example the American household with a median income of \$56,516 in 2016 spent roughly \$28,267 of their pre-tax income on interest charges in their cost of housing, food, transportation, education, health-care, recreation and government services (paid through taxes). In simple terms, this means that the average American household will spend half or fifty cents or every dollar of earned income on hidden interest costs. Or put another way, the typical American household will work half of their lives simply working to pay the interest charges on a rising mountain of bank-created debt money.

9

US Debt and GDP Per Capita versus Median Household Income, 1960–2016



SOURCE: US Federal Reserve Z.1 Financial Accounts of the United States (Table D3) Fourth Quarter, 2016; US Bureau of Economic Analysis (household income and US GDP historical statistics).

Moreover, lower-income households tend to pay disproportionately more in interest charges on the total debt of society than do upper-middle-class households. This is simply because higher-income-wealth households have more financial assets and investments that generate more interest income. There are indeed huge differences between who profits and who pays in this debt-money system. Breaking down household income into ten deciles or brackets shows that the first eight sections of the population pay more in interest charges on goods and services than they receive in interest income on investments, the ninth section receives slightly more than it pays, and the tenth receives about twice as much interest as it pays, i.e., the tenth receives the interest which the first eight sections have lost. This is why the rich get richer and the poor get poorer.

Remarkably, you will not find the cost of interest charges listed in the detailed household expenditure statistics collected by the US Bureau of Economic Analysis, along with shelter, food, transportation and taxes. Nor will you see these statistics reported by the US Federal Reserve bank, *The Economist*, *The New York Times* or *The Wall Street Journal*. This may be because most economists either do not consider debt money a problem or simply do not understand how debt money and interest relate to the economy and economic growth. Yet none of us escapes being touched or affected negatively by debt money bringing unaccountable levels of stress, anxiety and despair to our lives.

It is staggering to think that the greatest barriers to America's pursuit of happiness are never debated in the US Congress or state legislatures. Knowing there are legitimate alternatives to the current debt-money system to be found by re-examining the monetary policy history of the United States (including the ideas of Benjamin Franklin, Thomas Jefferson, Andrew Jackson, Abraham Lincoln and John F. Kennedy) compels all of us to explore new non-debt-asset-based money systems that exclude the burden of interest charges.

Until economists, national income accountants and political leaders acknowledge and account for the hidden cost to society of

interest associated with debt, there is little hope for a sustainable economic future for all nations. We could envision a day when the current system of debt money will be deemed unconstitutional by hindering the pursuit of a good life, of life, liberty and the pursuit of happiness. In many ways, all of us have become unwitting debt-slaves in an economic system that is not of our design, which could be made more fair, just and transparent and could be oriented toward economic well-being goals.

However, a transition from the world's dominant debt-based money systems to one where money serves the well-being interests of all people will take either a catastrophic collapse in the current unsustainable debt-cancer system or an act of collective courage from world leaders. Removing the primary driver for economic growth and productivity, as shown by statistics, will ease the pressure on economies for more GDP growth and the pressure on households to make more money and accumulate financial wealth and material goods. Everyone would win in a world without debt money. Imagine a day when we need work only half the hours we currently do, with higher levels of happiness and well-being. This future is within our grasp within a single generation. A future with more joy in the form of more free time to spend with our children, parents, grandparents, friends and neighbors is possible.

The Path Ahead

It's time for a new, more common-sense economic, accounting and financial system that makes the old system of financial capitalism obsolete. We need to move away from narrow self-interest to an economy of sharing in the abundance of community assets, with a focus on reciprocal and thriving relationships where well-being benefits are optimized. Economies might be modeled after resilient natural ecosystems such as forests or watersheds.

I am under no illusion that building economies based on the real wealth and assets of the nation, backed by interest-free money and tied to the higher aspiration of well-being, will be easy. Many will claim that such a shift is impossible, utopian and unrealistic.

I believe otherwise. A shift to a total asset-based economic model is viable and within the scope of our existing economic, accounting and financial systems. Moreover, a shift is possible simply because most people are finding that the current status quo has become unacceptable. At first, the steps toward an economy of well-being will be awkward and frustrating. I wrote this book because I believe there are many people who yearn for a better and more hopeful future. From my experience I have seen that building functional well-being economies is possible at any scale and in any sector. Nevertheless, the journey will require virtuous action, courage, patience, trial and error and wisdom. It will require a commitment to genuine engagement and active listening with our friends, neighbors, children, elders and politicians, rooted in the belief that all the solutions to our questions and challenges lie within the collective wisdom of the circle. Most importantly it will draw on our greatest strength and virtue: charity and love.

Notes

1. Thomas Aquinas said "To take interest for money lent is unjust in itself, because this is to sell what does not exist, and this evidently leads to inequality, which is contrary to justice. Now, money was invented chiefly for the purpose of exchange. Hence, it is by its very nature unlawful to take payment for the use of money lent, which payment. (Thomas Aquinas (1269–71). *Summa Theologica*, translated by Fathers of the Dominican Province, pp. 330–340, R. T. Wasburne, Ltd. London, 1918.
2. Pope Francis (Jan 2014), addressing the National Council of Anti-Usury Foundations.
3. Eric Gallager. Aristotle's Definition of Eudaimonia. 11.24.2010. History of Western Political Thought. Accessed at academia.edu/514238/Aristotles_Definition_of_Eudaimonia December 18, 2016.
4. Ibid.
5. loc.gov/exhibits/treasures/trt001.html accessed December 18, 2016.
6. A steady-state economy is based on the principles of physics, in which an economy is founded on a constant stock of physical wealth (capital) that is maintained over time relative to a constant human population, such that in essence the economy does not grow. In fact, Adam Smith was the first to theorize that any national economy in the world would sooner or later settle into a final steady-state condition.

7. wellbeing.smgov.net/ accessed December 8, 2017.
8. gallup.com/poll/106756/galluphealthways-wellbeing-index.aspx accessed April 20, 2017.
9. gallup.com/opinion/gallup/206468/happiest-unhappiest-countries-world.aspx?g_source=CATEGORY_WELLBEING&g_medium=topic&g_campaign=tiles accessed April 20, 2017.
10. Harris Poll results are for 2008–2016. Other US happiness polls are from various previous surveys dating back to 1946.
11. theharrispoll.com/health-and-life/American-Happiness-at-All-Time-Low.html Harris Poll has been measuring Americans' happiness since 2008 using an index that is calculated by taking an average of those who *strongly agree* with certain positive statements and *strongly disagree* with certain negative statements that are asked along an agree/disagree scale.
12. time.com/4389726/harris-poll-happiness-index-2016/.
13. Based on analysis conducted by Mark Anielski using US Federal Reserve US debt statistics, GDP and other economic statistics for the period 1950 to 2017.
14. According to the 2017 US federal budget, health care spending was estimated to be \$1,254.8 billion and defense budget was \$808.3 billion. Estimated total, or gross, interest payments on the US federal debt (\$21,325.5 billion) was estimated at \$928.8 billion.
15. Based on US Households by Total Money Income, Race, and Hispanic Origin of Householder: 1967 to 2015, US Census Bureau, Current Population Survey, 1967 through 2016 Annual Social and Economic Supplements.
16. ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/measuringnationalwellbeing/2015to2016 accessed May 31, 2017.
17. Ed Diener speaking in Singapore in 2016 youtu.be/jCrOpCGdEvI.
18. The City of Victoria, BC, led by Mayor Lisa Helps, has developed a new economic development strategy, Making Victoria: Unleashing Potential, which states, "The ultimate purpose of economic development is to increase the genuine well-being of citizens. Well-being is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (World Health Organization)." victoria.ca/EN/main/business/economic-development.html, accessed May 29, 2017.
19. Official total debt statistics for the US are reported quarterly by the US Federal Reserve; data can be accessed at [federalreserve.gov/releases/z1/Current/ Table D3](http://federalreserve.gov/releases/z1/Current/Table%20D3). At the end of the 3rd quarter 2017 total outstanding US debt was \$68,017 billion.
20. As of March 2017, the US debt is about \$19.9 trillion and is constantly changing; it amounts to:

\$61,365 for every person living in the US
 \$158,326 for every household in the US
 106% of the US gross domestic product
 560% of annual federal revenues

Much of the debt is bought and held by individuals, institutional investment companies and foreign governments. The debt is managed by the US Treasury. [usnews.com/news/economy/articles/2017-04-13/what-are-the-national-debt-debt-ceiling-and-budget-deficit](https://www.usnews.com/news/economy/articles/2017-04-13/what-are-the-national-debt-debt-ceiling-and-budget-deficit), accessed May 31, 2017.

21. Analysis is based on US Federal Reserve statistics of historical total debt in the US and US GDP statistics from the US Bureau of Economic Analysis.
22. These figures vary from an estimated average 6.46% interest charges on household debt (mortgages, consumer credit, credit card debt, student loans, etc.), to 4.15% average interest charge on all federal, state and local government debt and 5.00% average interest charges on business, domestic financial sector and foreign debts. Experts with greater knowledge of the actual interest rate charges on all forms of debt will undoubtedly see that my interest rate cost estimates are highly conservative.
23. See bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm, accessed May 31, 2017.