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Features

GDP: RIP?

By Doug Mcinnis

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The Gross Domestic Product is one of the most closely watched and often-quoted economic statistics. But it's also among the most misleading. The GDP is supposed to measure the total output of goods and services, and yet it fails to count the multi-billion-dollar black market and the enormous economic contribution of child rearing. It registers growth even when that growth is built on an unsustainable foundation of pollution, depleted natural resources, and ruinous borrowing. It can lend the appearance of widespread economic prosperity even as the ranks of the poor expand...

he Gross Domestic Product was created during the Great Depression to help the U.S. gauge the direction of the economy at a time when good fi nancial data was scant. "During the Depression, policy makers knew things were bad," says Karel Mertens, assistant professor of economics at Cornell. "But they had no idea how bad."

So the GDP, then called the Gross National Product, was crafted to measure the total output of U.S. goods and services, and over the years it has been adopted worldwide. As time passed, the GDP acquired added meaning. For instance, it is now seen as a gauge of overall

prosperity, and as a measure of how happy we are. And, more recently, investors have viewed a rising GDP as a hopeful sign that America's economic troubles might ease.

Per capita GDP has long been criticized as a misleading indicator of well-being, Professor **Robert Frank** noted in an interview videotaped by Cornell's eClips earlier this year. "When you have a crime wave and people go out and buy more expensive locks for their doors, that makes GDP per capita go up, and it certainly doesn't seem to correspond to an increase in welfare. When pollution goes up and we have to spend more to deal with the problems caused by that, an increase in GDP is reflected in that."

Community activist Jonathan Rowe, who testified before the Senate Commerce Committee this year, defi ned the GDP as "a big statistical pot that includes all the money spent in a given period of time. If the pot is bigger than it was the previous quarter, then you cheer. The money could be going to cancer treatment or casinos, violent videos, or usurious credit card rates. . . . The money in the pot could betoken social and environmental breakdown — misery and distress of all kinds. It makes no difference. You don't ask. All you want to know is the total amount, which is the GDP."

"The GDP is a very crude, one-size-fits-all measure," says Stuart Hart, Samuel C. Johnson Chair in Sustainable Global Enterprise and professor of management. "It measures total economic activity regardless of the result of that activity. At the end of the day, if the GDP is your metric, then we're going to go over the cliff."

In fact, the U.S. has found itself dangling over the precipice despite a growing GDP. Consider recent events. On August 28, the Commerce Department announced the GDP had grown at a healthy 3.3 percent clip in spring and early summer, more than three times the anemic pace of the winter months. Hopeful investors pushed the Dow Jones Industrial Average up by more than 200 points by day's end.

Then the dominos began to topple. Within a month, the government took control of mortgage giants Freddie Mac and Fannie Mae, Bank of America agreed to buy troubled Merrill Lynch, Lehman Brothers went under, the government bailed out insurance giant AIG, bank regulators seized Washington Mutual, and Congress agreed on a $700 billion bailout package for fi nancial fi rms to try to stop the chaos. Meanwhile, the housing crisis and unemployment worsened.

"No one can question that the GDP has been growing," says Hart. "But what's the point?"

Beyond the GDP's most recent misleading signals, economists have other problems with the index. For instance, the economy can grow quite briskly without necessarily benefitting everyone equally. "The average GDP tells you what the average income per person is," says Frank. "But it doesn't tell you how income is distributed. All the money might be in the hands of one person." In fact, several studies have found that in the U.S., the rich are getting richer, while the middle and lower classes haven't fared nearly as well. "The wealthiest 1 percent of Americans earned 21.2 percent of all income in 2005, according to new data from the Internal Revenue Service," the Wall Street Journal reported last year. "That is up sharply from 19 percent in 2004 . . . The bottom 50 percent earned 12.8 percent of all income, down from 13.4 percent in 2004 . . ." CNBC reported on its multimedia Web site, "**Untold Wealth: The Rise of the Super Rich**," that "In 1985 there were only 13 billionaires in the U.S. Today there are more than 1,000. The richest 1 percent of Americans control more than 33 percent of the total wealth; their wealth is now greater than the bottom 90 percent of Americans. (Federal Reserve Surveys of Consumer Finance.)"

The GDP also fails to reflect the negative effects of industrial production, which have been blamed for fouling water and air, damaging health, and heating the planet. From the standpoint of the GDP, any industrial production is good because it makes the GDP bigger.

Perhaps the biggest problem with GDP is that it doesn't tell us when we're using up the most basic necessities for life. "In the U.S., the natural capital has been under assault and is in decline," says Hart. "We've had soil loss, a reduction in fresh water, and losses of coral reefs, native forests, and species. In virtually every way you want to measure it, we're headed in the wrong direction."

As Hart sees it, the problem isn't one of depleted commodities; these can be replaced. For instance, if we run out of oil, we'll fi nd another way to power our cars, he says. "The problem is that GDP fails to measure the damage to the environment that sustains us. There are many things we can't substitute for. Water is clearly one of them. If water becomes scarce, there is no substitute. People die."

Income Inequality and the GDP

Some studies have found that the benefits of a growing Gross Domestic Product have gone disproportionately to the wealthy in recent years, while the incomes of middle- and lower-class Americans haven't grown nearly as fast. In some cases, as in that of unionized airline workers, middle-class incomes have actually fallen.

Professor Robert Frank

This income inequality comes at a time of slower GDP growth, said Robert Frank, Henrietta Johnson Louis Professor of Management and professor of economics at the Johnson School. Frank believes there is a relationship between the two. "One of the claims you often hear is that we need to have income inequality because it makes the GDP grow faster. But more recent research shows that the GDP grew faster when there was less income inequality."

In the decades immediately following World War II, for instance, the GDP grew at a rapid rate, while at the same time, wealth was more evenly shared, Frank said. "Recent tax cuts for the wealthy were supposed to spur GDP growth, but growth has been lower than it was before.

"If you're trying to stimulate the economy," said Frank, "then putting money into the hands of people who don't have it is a surer way to stimulate growth than putting more money into the hands of the rich, who already have the money to take care of their urgent needs."

Robert Frank Shares Thoughts on Well Being and GDP

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The GDP goes up even when the U.S. goes into debt to finance its oil import bill, which is expected to top $400 billion this year, according to *Petroleum Intelligence Weekly*. On the other side of the world, oil-producing nations are locked into the same losing game.

Their GDP goes up as they sell their oil to the rest of the world, even though they are depleting a finite resource. "Once the oil is gone, what will they be left with?" asked Erik Thorbecke, emeritus professor of economics at Cornell. "Unless these countries take early steps to diversify their economies and educate their people, they're going to be left with nothing."

What the GDP Doesn't Measure

While the Gross Domestic Product is supposed to measure the total output of goods and services, it doesn't, and probably can't, says **Karel Mertens**, assistant professor of economics at Cornell.

For instance, GDP doesn't count the work of spouses who stay at home taking care of kids and cooking meals. But if the same family were to spend money on a nanny and carry-out from Burger King, the GDP would go up. Barter isn't counted either. If a mechanic changes the oil in his barber's car in return for a haircut, the GDP is static. If they pay each other, the GDP goes up.

Nor does the GDP count transactions in the murky black market, where stolen goods are marketed and consumers stock up on everything from bootleg DVDs to moonshine whiskey.

"It's very difficult to get or estimate data for work done at home, barter, or the black market," says Mertens. These missing pieces can be substantial, he adds. "I used to live in Italy, and it's estimated that the GDP there is understated by 30 percent because of uncounted black market income."

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With all these problems, it might seem obvious that changes to the GDP are needed. But the formal definition is now set by the Economics Statistics Branch of the United Nations' Statistics Division. Because so many nations are impacted by U.N. policy, changing any set policy is difficult. The GDP is no exception. Even if the U.N. statisticians who set the formula were in agreement that change is needed, they would still run up against the central issue of just how to change it. The devil, as always, is in the details.

Professor Stuart Hart

In addition to built-in inertia at the U.N., some member nations may resist changing the GDP because it might reveal underlying problems with their spectacular records of growth. "China has had unbelievable growth of GDP — nine or ten percent a year over a period of years," says Thorbecke. "If you took into account all the (negative problems of growth), it would still look quite impressive, but not as impressive. And the same with India."

Professor **Iwan Azis** raises another question: "Once you started to change the definition of GDP, where do you stop?" he asked. "Once you start, it's unending. You could factor pollution into the equation. What about the work of the spouse who stays at home — that isn't counted in GDP. People can argue that it should be counted. It would go on and on and on.

"I don't think we need to change the definition of GDP," continues Azis, professor and director of graduate studies in regional science at Cornell as well as adjunct professor of management at the Johnson School. "Rather, I think we need to educate the public on its limitations."

But some critics have had enough. This year French President Nicolas Sarkozy, one of the most closely watched politicians in Europe, appointed a task force to devise a GDP replacement that will include factors that measure well-being. The task force includes economists Amartya Sen and Joseph Stiglitz, both Nobel laureates. Sarkozy may be motivated to focus on France's quality of life rather than its lackluster GDP growth rate, which increased an estimated 1.9 percent in 2007, according to CIA data.

"The GDP is very crude, one-size-fits-all measure. It measures total economic activity regardless of the result of that activity."
— Professor Stuart Hart

In the meantime, there are plenty of other measures that economists can use in conjunction with GDP to get a better measure of economic well-being. "GDP is one of the measures of welfare," says Azis. "It's not the only one, and by far it's not the best."

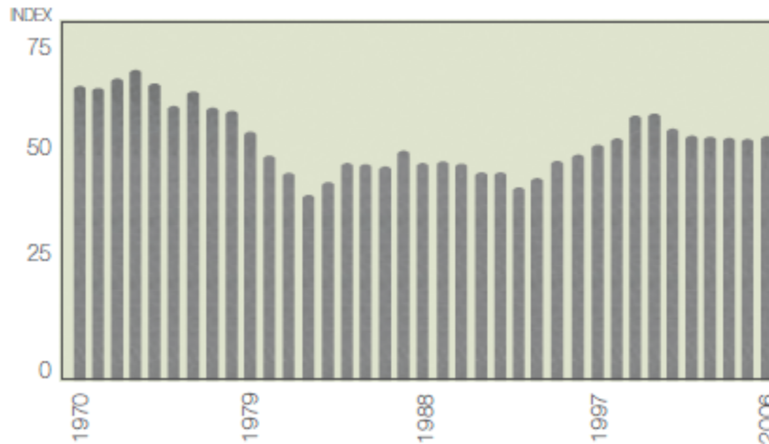
Alternatives include the **United Nations Human Development Index**, a compilation of economic indicators that

includes the GDP per capita, the percentage of school-age children in school, and the national life expectancy, Azis says. The U.S. does very well in GDP per capita, ranking second behind Luxembourg. But the U.S. falls to 12th place when the other factors are included. The U.S. ranks 31st in life expectancy, just ahead of Cuba, and 19th in education, just behind Kazakhstan.

Index of Social Health

Overall, between 1970 and 2006, the Index of Social Health declined from 66 to 55, a drop of 17 percent.

Index of Social Health of the United States, 1970-2006



The Index of Social Health in the United States monitors 16 social indicators.

Progress *Seven indicators have improved since 1970:*	**Lack of Progress** *Nine indicators have worsened since 1970:*
Infant mortality	Child abuse
Teenage drug abuse	Child poverty
High school dropouts	Teenage suicide
Unemployment	Average weekly wages
Poverty, ages 65 and over	Health insurance coverage
Homicides	Out-of-pocket health costs, ages 65 and over
Alcohol related traffic fatalities	Food stamp coverage
	Access to affordable housing
Source: **Institute for Innovation in Social Policy**	Income inequality

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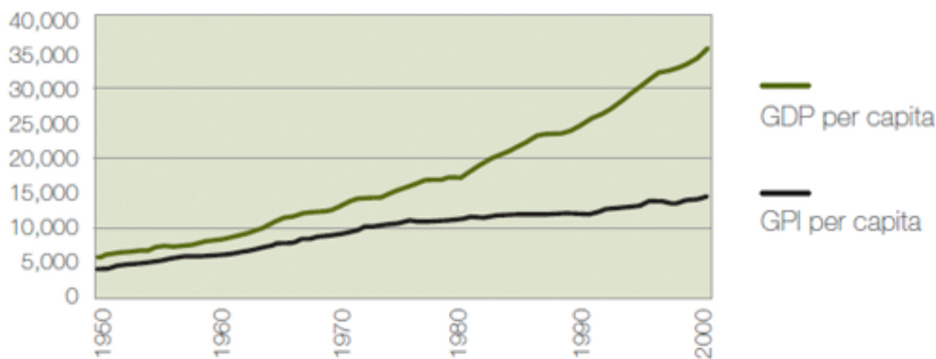
Genuine Progress Indicator

Two views of reality: The line graph compares growth per capita of the Gross Domestic Product with the tempered view of the Genuine Progress Indicator between 1950 and 2004. While per-capita GDP rose dramatically between 1950 and 2004 (from $11,672 in 1950 to well over $36,595 in 2004), per-capita GPI has been stagnant since the late 1970s (in the $14,000-$15,000 range), when factors such as global warming, resource depletion, poverty, urban sprawl, crime, exported jobs, and war, are taken into account.



Real GDP and GPI Per Capita 1950-2004*
***as calculated using the value of the dollar in the year 2000**

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Another alternative measure, from the Institute for Innovation in Social Policy at Vassar College (formerly the Fordham Institute for Innovation in Social Policy), monitors the social well-being of American society and is based on 16 social indicators. In 2006 (the latest year for which complete data are available), the **Index of Social Health** stood at 55 out of a possible 100. Since 1970, the U.S. has improved in seven categories, including infant mortality and teenage drug abuse, but has failed to make headway in nine others. The latter group includes child poverty, teenage suicide, and income inequality.

Professor Emeritus Erik Thorbecke

Still another measure is the **Genuine Progress Indicator** (GPI), created in 1995 by Redefining Progress [**www.rprogress.org**], a California-based think tank dedicated to finding "solutions that ensure a sustainable and equitable world for future generations," according to its Web site. The GPI is measured using the same data on which the GDP is based, and then adjusted by adding factors such as household and volunteer work, and subtracting factors such as the costs of crime and pollution. It also makes adjustments for changes in income distribution. When the poor do better, the GPI rises; when they don't, it falls. By its measure, the GPI showed moderate economic growth in the 1950s and '60s. But its latest update concluded that "economic growth has been stagnant since the 1970s."

One of the most respected and widely used yardsticks for measuring the depth of poverty in developing countries is the Foster-Greer-Thorbecke poverty measure (introduced in the journal *Econometrica* in1984) by Cornell's Thorbecke and two Cornell graduate students, James Foster and Joel Greer. This index measures not only the number of people in poverty, but also how income is measured below the poverty line, taking into account the intensity and severity of poverty. The F-G-T has become the standard poverty measure adopted by the World Bank, the United Nations, most government agencies, and scholars.

"Over time, the concept of GDP is going to evolve into a more accurate concept that will take into account the various issues that have been raised."
— Professor Emeritus Erik Thorbecke

F-G-T helps policy planners deal with changes in the degree of poverty found in a given nation. "You could have a reduction in the number of people who are poor, but an increase in the number of very poor," Thorbecke says. "In that case, society might be worse off. You can tell absolutely nothing about these types of developments from the GDP."

Nor does the GDP reveal whether a society is happy. While the common assumption is that more money makes people happier, some economists take exception. "One thing we know is that simply earning more money does not correlate with happiness," says Hart. "It is true that among the very poor, an increase in income up to a point does correlate with greater happiness. But when you get into the hundreds of thousands of dollars per capita, there's a negative relationship

between income and happiness. We don't know why."

Citing several studies in his often-quoted book, *Luxury Fever*, Robert Frank wrote: "One of the central findings in the large scientific literature on subjective well-being is that once income levels surpass a minimal absolute threshold, average satisfaction levels within a given country tend to be highly stable over time, even in the face of significant economic growth."

"Over time, the concept of GDP is going to evolve into a more accurate concept that will take into account the various issues that have been raised," says economist Thorbecke. But this won't happen quickly, he warns. "The U.N. statisticians are very conservative."

"Many economists feel GDP is an imperfect measure," notes Thorbecke. "Many of them are trying to see what can be done to change it. At the same time, you really cannot scrap it when you do not have an alternative."

United Nations Human Development Index: Top Fifteen Nations

The United States ranks second globally - behind Luxembourg - in Gross Domestic Product per capita, but ranks 12th in the United Nations Human Development Index, which takes life expectancy and education into account in addition to per capita GDP.

1. Iceland
2. Norway
3. Australia
4. Canada
5. Ireland
6. Sweden
7. Switzerland
8. Japan
9. Netherlands
10. France
11. Finland
12. **United States**
13. Spain
14. Denmark
15. Austria

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- Karel Mertens
- Robert Frank
- Stuart Hart
- Erik Thorbecke
- Iwan Azis
- Untold Wealth: The Rise of the Super Rich
- United Nations Human Development Index
- Institute for Innovation in Social Policy
- Index of Social Health
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- Beyond GDP
- European Parliament Committee on the Environment, Public Health and Food Safety study: "Alternative progress indicators to Gross Domestic Product (GDP) as a means towards sustainable development" (October 2007)

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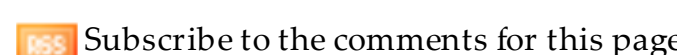

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