CE406 – Cost Benefit Analysis

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Research Project

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Introduction

Countries are at different points in development ranging from first world to third world. When evaluating an economy there are many things to consider but the gross domestic product (GDP) is mostly used. Gross domestic product is a monetary measure of the market value of all the final goods and services produced in a specific period by a country. GDP is the most popular indicator of a nation's overall economic output, but it is far from a perfect measure of true economic well-being. The GDP does not consider factors tied to well-being such as the health and education of the population. To further evaluate the economic health of countries, the Human Development Index, Better Life Index, or Genuine Progress Indicator can be utilized. These indexes don’t solely focus on the economic growth of the county, they emphasize the people and their capabilities.

Literature Review

Gross domestic product is the traditional economic indicator but it has some limitations as a sole indicator of economic health because it does not tell the whole story. It is similar to GPA in students, GPA is used to compare students but it does not tell the whole story and is difficult to compare just based on numbers. This is why schools have applications to try and learn more about the students' whole story. Also, inflation or deflation plays a role in understanding how these factors can affect the economic stability of a country. According to a Behavioural Public Policy article, there are “unaccounted for dimensions of well-being, such as health, relationships, emotions, and other quality-of-life dimensions” which would help to give a better understanding of a country's economic health. The citizens of a country are affected with other factors other than just monetary and an understanding of their well-being is important.

Labor market indicators are also important because they determine job opportunities for citizens. Unemployment rates are a good indicator of economic health because when a country is struggling there are fewer jobs while a growing economy has more opportunities for work. According to an article in The Quarterly Journal of Economics, “The labor market increasingly rewards social skills.”, meaning that more job opportunities create better social skills in the economy reflecting growth. This article also states that employment and wage growth mean more opportunities for higher-skilled jobs which also reflects a great economy where education is valued and needed.

Social factors regarding social classes are also a good indicator of economic health. Levels of income inequality can be an indicator of economic health and societal well-being. Some countries have upper, middle, and lower classes which means a diverse economy. Still, there are some countries where citizens are mostly poor or lower class which reflects a bad economy and economic position. Also, people in a better social class have more access to education which determines the economic prospects of a country. Joseph E. Stiglitz wrote in his research that “growing inequality means shrinking opportunity…weakens health and environmental protections, and undermines what used to be viewed as the "core" labor rights”. He explains that less opportunity means there are fewer chances of improving people's economic status as well as their social class. How a country is structured socially plays a big role in the long-term success or failure of its economy.

Health factors are a big part of determining a country’s overall economic health because a good economy means the citizens are healthier and live longer. For example, the report "Impact Of Health, Social, Lifestyle, And Economic Factors On Life Expectancy In OECD Countries" concluded that countries with better economies had citizens who lived longer. This longer life expectancy is because countries with better economies tend to have better health care and more and easier access to food and water. Better economies tend to value health. The health of citizens and life expectancy can be a reflection of a country's economic and social health.

A factor that people tend to miss is environmental factors or the sustainability of a country's practices that can influence its long-term economic health. Countries with good economies care more about the environment that their citizens live in. A report from the American Journal of Agricultural Economics showed that better countries put more restrictions on pesticides used in the food that they make for the health of their citizens. Better food also means that people will buy it more and have better trading relationships leading to more money in the economy.

Innovation and technology are other factors to consider as countries with better infrastructure will tend to be better off than countries with no access to the Internet. Having access to technology helps countries to be better off and to grow economically. The Indian Journal of Industrial Relations reported that "Digital Infrastructure has become a significant necessity for economic growth acting complementary to traditional social and economic infrastructure factors…". Countries need technology to advance in this day in age and those without it will not be able to grow without it. The introduction of new infrastructure in India caused it to grow rapidly as stated in the report, "strong infrastructure will act as a multiplier of growth for the nation.". Innovation and technology is a huge indicator of a country's economic health as it is vital for its growth and success.

Well-being and happiness is not usually used as an indicator of economic health as it tends to be subjective because citizens report on how they feel but it can help to better understand how a country is doing. According to The Wellbeing of Nations, “measuring wellbeing can tell if the government is succeeding and, even more, if progress is being made.”. The happiness of citizens can tell a lot because countries that are suffering will have their people also suffering leading to feelings of unhappiness throughout. Citizens struggling to find food and water or struggling financially will be unhappy and this is a reflection of the country's poor economic health. Although happiness is subjective and self-reported by citizens, it is still an indicator that can be used to better understand a country’s economic health.

Financial sector indicators such as social security can also be used when learning about a country's economic health. National and household financial levels can influence economic health. According to the Journal of Infrastructure, Policy, and Development, there is a “correlation between economic growth and social security development”. This report stated that countries with better economies tend to have more resources for their citizens and offer them better benefits to set them up financially. Poorer countries do not have the infrastructure or extra capital to be able to apply this. Debt levels can be used as an indicator to further see the correlation between financial and economic health.

Economic resilience is a good factor in economic health because it shows a country’s ability to withstand economic shocks. Economies do have ups and downs but a country with good economic standing will be more likely to have to recover. For example, the United States had an economic crash in 2008 but has now since recovered from that financial crisis because of how good the economy was. The International Business Review states that “Cash holdings, knowledge assets, cross-border sales, and access to foreign capital markets are crucial for global business resilience.”. The United States had all those factors that allowed them to survive. Also most recently was the Covid-19 pandemic where the economy was heavily affected but recovered.

The last indicator that can be used is trade and international relations especially Foreign Direct Investment (FDI). According to Development Studies Research, "It is generally believed to boost economic growth through technology spill-overs, skill transfer, knowledge externalities, local employment generation, and through other channels." Countries that have more investment from foreign countries tend to have a better economy as it tends to have positive effects. The research article also states that it can potentially lead to an increase in wages and better working conditions in low- and middle-income countries. Investment from foreign countries helps the economy to grow by providing the citizens with better overall lives.

Although GDP is the most common indicator of a country's economic health there are so many more indicators that emphasize people and their capabilities, instead of economic growth alone. These are some other indicators that can tell more of the story and get a better understanding of how a country is doing.

Case Study

The Genuine Progress Indicator (GPI), is a measure that utilizes the GDP as a foundation. Its purpose is to account for both current environmental issues as well as long-term sustainable use of natural ecosystems and resources. Fox and Erickson's paper titled, "Genuine Economic Progress in the United States: A Fifty-State Study and Comparative Assessment", presents the first fifty-state study for the U.S. GPI in hopes of better understanding how it can be used to guide economic policy.

Maryland became the first government-sanctioned GPI effort stemming from a 2010 executive order of Governor O'Malley. Later in 2014, as part of a graduate course, an initial fifty state GPI assessment was produced. The article states that "The GPI is a linear equation in which 7 benefits and 18 costs sum to a single monetary measure of economic welfare" (Fox and Erickson 2). The GPI deducts harmful aspects of consumption and these components are reflected in monetary terms, that way they can easily be compared to the GDP.

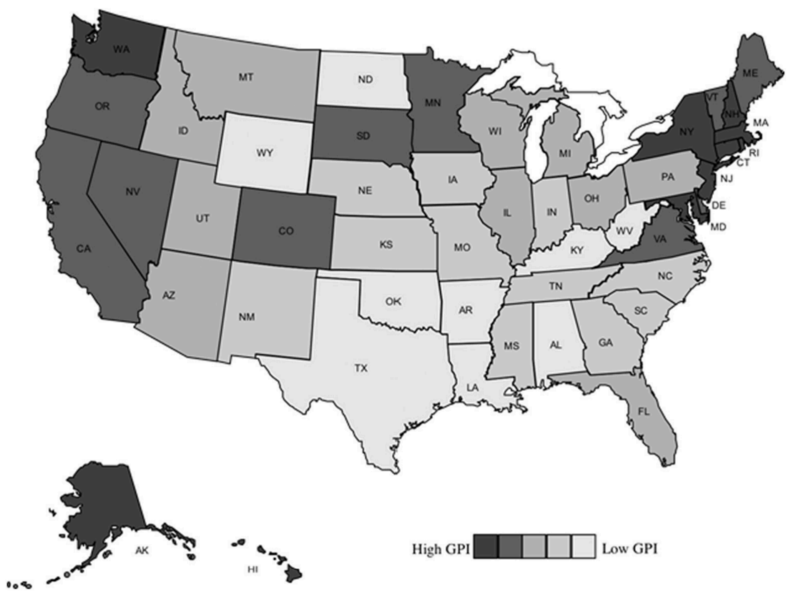

Fig. 1 Fifty-state genuine progress indicator (Fox and Erickson)

The figure above recognizes the estimates per capita by state of GPI. According to the article, Wyoming had the lowest and Alaska had the highest GPI with a range of about $97,218 per capita. Surprisingly Arizona, Arkansas, Louisiana, Mississippi, North Dakota, West Virginia, and Wyoming all have a negative GPI. This tells us that their total costs of annual consumption far outweigh the benefits these states provide. Based on their findings, no state has a higher GPI than gross state product (GSP). Strikingly, Alaska is ranked number 1 in terms of both GPI and GSP, but Wyoming is 50th in terms of GPI and 4th for GSP. This stark difference between high

GSP and low GPI is a pattern in other energy extraction-based states such as North Dakota, Iowa, and Texas.

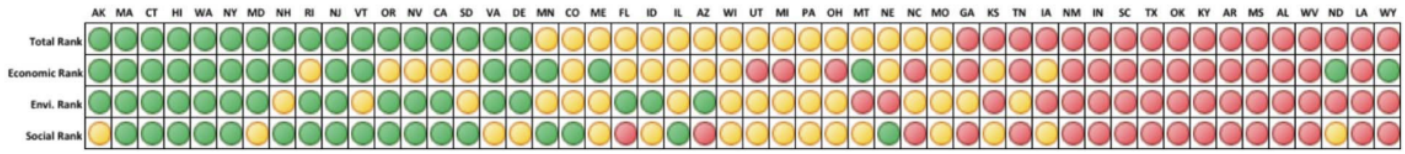

Fig. 2 Economic, environmental, social state rank traffic light diagram (Fox and Erickson)

Fig. 2 displays a green light for states that rank in the top third for that given category, yellow for the middle third, and red for the bottom third. Most of the time, if a state does well in terms of economic components, it will also score well on social and environmental. Thus, economically depressed states tend to rank poorly in terms of environmental and social attributes. The environmental component has the largest range at $91,074, highlighting the consequence of choosing environmental assets in state accounts.

Conclusion

Based on the information collected, it stands to reason that GDP is an acceptable measure of a country's economic health. As displayed in "Genuine Economic Progress in the United States: A Fifty-State Study and Comparative Assessment", additional economic assessments like GPI are directly or indirectly tied to GDP. When only looking at a single method of measurement, GDP is arguably a comparably accurate assessment. However, it would be short-sighted to eliminate other methods. Every one of the methods discussed can be misleading while viewed on its own and without supplementary information. For example, the data regarding India's rapid growth in infrastructure provides no context on the average citizen's income. Or how the official unemployment rate does not include citizens not actively seeking employment. The best method of measuring an economy's health would be to provide various methods of data chosen based on the purpose and goals of the individual. Using multiple methods includes additional context and information that others lack, creating a more complete and thorough picture.

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