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Measuring the Well-Being of Economies Beyond Gross Domestic Product

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INTRODUCTION[1]

The most widely used measurement of economies around the world is the gross domestic product (GDP). There has been much study and reasoning that has gone into the conceptual and statistical bases of this indicator and there are even international standards for how it should be calculated. The monetary valuation of goods and services has fabricated a relatively manageable way for us to sum up quantities of different nature and for calculating the economic progress of a nation. The GDP indicator is seen as being another way for measuring money in order to present economic performances and living standards, giving it an extremely important role in our societies. The GDP indicator is supposed to capture all final goods and services which are collectively consumed by households, firms, and a government within an economy. Therefore, this GDP indicator is observed by many as a way to capture all economic activity into a single number that gives an idea of how an economy is doing in a particular moment, and it is often treated as if it were also a measure of how well-off society is. But commingling the notion of economic progress with societal well-being can be misleading and can cause inappropriate and sometimes flawed policy decisions to be enacted. It is known that GDP does not measure every aspect of an economy. This is because GDP focuses mainly on the measurements of *market* production. An economy's well-being is more complicated than simply measuring the monetary valuation of goods and services. Society is more complex and multi-dimensional. Meaning that there are aspects in our society that cannot be measured by merely placing prices on them. In that, there are goods and services which are not or cannot be measured in prices, or the consumption of various products and services can have effects on society in ways that differ from their consumption value. In addition to these issues, there are also the environmental aspects of production and consumption which are not captured in the GDP indicator or prices. The GDP indicator possesses deficiencies that limit it from being an indicator of well-being. In order to measure the well-being of the economy, there need to be multi-dimensional indicators that go beyond what GDP is providing. GDP should be one of the indicators for the measurement of well-being, but it should not be the sole or principal indicator. There need to be indicators that can measure the quality of health, education, infrastructure, civil society, equality, governance, environment, etc. along with GDP. This paper will briefly analyze GDP and various indicators

[1] Stiglitz, Joseph E.; Sen, Amartya Kumar; & Fitoussi, Jean-Paul. (2009). *Report by the commission on the measurement of economic performance and social progress.* . Commission on the Measurement of Economic Performance and Social Progress, Paris. Pg. 7-8, 21-23, 85-88

that have been utilized to measure well-being around the world and attempt to recognize any possible application of well-being measurement within the national context.

THE GDP INDICATOR

Even as GDP levels can correspond with other indicators when referencing living standards, it has been shown that it is not universal. GDP becomes weaker when focused on a particular sector of the economy, such as the real household income. If there is a heightened emphasis on GDP as being the benchmark of living standards, it can produce misleading indications of how well-off people are in society. This would have a ripple effect in leading policymakers to enact inaccurate policies which could cause harm and difficulties to countless individuals. Nevertheless, we must not forget that GDP gives us a useful perspective into market production. As a measurement of market transactions, it utilizes the objective prices that the markets allocate to goods and services, making it possible to calculate and add one thing with another.[2] Martin Weitzman (1976) observed that the economic activity's ultimate end is not capital formation, but rather it is consumption.[3] Therefore, he believed that by observing how goods and services in the market are consumed, we can indicate where economic well-being stands. A good gauge to changes in economic well-being could be the changes in the net domestic product (NDP). Where the wealth of an individual or a nation could be observed "as the present discounted value of consumption and NDP could be"[4] considered as something like an interest payment on wealth. However, prices do not exist for some goods and services that are consumed in the market. An example would be education, where prices can be placed on paid work to teachers and academic institution staff, books and other school supplies, or academic infrastructure, equipment, and software. But there are no prices for the unpaid time parents spend having to help their children with schoolwork, or students educating themselves, or volunteer mentors and tutors who help students with their academic struggles.[5] Another example would be healthcare where prices can be placed on doctors and nurses, medicine and medical supplies, or medical infrastructure, equipment, and software. But there are no prices for the unpaid time of

[2] Ibid. pg. 7-8, 21-23, 85-88
[3] Martin L. Weitzman. On the Welfare Significance of National Product in a Dynamic Economy. The Quarterly Journal of Economics. 1976. Pg.156
[4] Stiglitz, Joseph E.; Sen, Amartya Kumar; & Fitoussi, Jean-Paul. (2009). *Report by the commission on the measurement of economic performance and social progress.* . Commission on the Measurement of Economic Performance and Social Progress, Paris. Pg. 274-275
[5] Ibid. Pg. 274-275

family members caring for their sick and elderly members, parents caring for their newborns when they are not at work, or medical emergencies that cause people to leave work to care for themselves or be with an unwell loved one. There are also no prices for unpaid internships, volunteer work, or community services, and countless others.

The issue with GDP also lies in the production and consumption of various products and services which have effects on society in ways that differ from their consumption value. These effects on society can be observed on an individual level or a collective level. Given that firms are always optimizing their scale of production to maximize profits in order to market products as cheaply as possible. The consequences of maximizing profits are low wages and fewer or no labor benefits. If maximizing profits is the goal for one company, its competitors will strive for the same. Pushing down prices to remain competitive in the market will surely generate cheaper prices, but it will certainly lower wages and workers will receive fewer or no benefits. Even if there are no production lines or tangible products to produce, the service industry has methods to lower costs, either by creating commission base jobs or hiring fewer workers and demanding more from a smaller batch of employees. In a commission-based job, sometimes workers will need to sell non-tangible products or service packages in order to get paid. Workers put in more hours and more effort to ensure they get their set commission salary. If workers are not able to work, regardless of the emergency, they are not going to get paid. If they take time off to care for a sick family member or themselves, then their income will decline. It is even more stressful when gender is considered. Various firms do not have maternity leave for pregnant individuals. This means that having a baby will generate not only increased expenses but a decline in income. When firms and governments, who are employers of households, cut costs to increase profits, they are simultaneously reducing the income of households. When income is reduced, individuals spend less time with family and friends, less time for self-care, less time for mental destressing, less time on overall leisure, and more time working to maintain a relatively steady income flow. The monetary valuation of goods and services captured by GDP does not capture the effects of what it means to have cheap prices for goods and services on society and especially on the individual. In this sense, time spent working is frankly an extra dollar earned for individuals, and time spent not working is sadly an extra dollar not earned.

There is also another important part of the economy that the GDP indicator and prices do not capture, and that is the environmental aspects of production and consumption. Even though

there have been many extreme negative externalities on the environment due to production and consumption for centuries, prices have not been able to completely capture these externalities. In 1301, the burning of coal engulfed London in a heavy cloud of smog, causing King Edward I to limit the burning of coal. A naturalist named John Evelyn, in the 17th century, wrote about London to be resembling "the suburbs of Hell" in his works. But it took the British Parliament until the 20th century to pass the first Clean Air Act. This was only passed due to the infamous killer fog in London which took the lives of 4,000 people, 4 years prior. At the dawn of modern environmental rights, Benjamin Franklin had petitioned for a system of waste management and that having clean air is a public right. In *An Essay on the Principle of Population* by Thomas Malthus, people were warned about the effects of human overpopulation which could lead to the destruction of the ecosystem. Even the mathematician John Baptiste Fourier warned society about global warming, he had explained the calculation which led to the discovery concerning the Earth's atmosphere was acting like a greenhouse, trapping heat from the sun.[6] But it was not until Rachel Carson, who published her "explosive bestseller" *Silent Spring*, shedding light on the impact of chemical pesticides on biodiversity and the human body that presented a direct link between industrial agricultural production and the harmful impact it had on society and the environment. She not only goes into detail explaining the countless problems and illnesses that humans and other living organisms faced due to the heavy use of chemical pesticides, but she also discusses the long-term effect chemical pesticides had on our biodiversity. She states that "The farmlands of modern agriculture are highly artificial, unlike anything nature ever conceived." The heavy use of chemical pesticides contaminate our freshwater sources causing water near industrial farming to not only be poisonous, but cancer-producing in humans and other species that come in contact with it.[7] The environmental repercussions from production and consumption are not limited to what happens on land, but it also affects our air quality and oceanic biodiversity. The packaging containers of products or products with short shelf life or products that cannot be consumed and are thrown in the garbage once there is no use for them are damaging our environment. According to the World Bank 2018 report on global waste, humans generate annually about 2.01 billion tons of solid waste. It was shown that high-income countries, which is roughly 16 percent of the world's population, had produced a total of 34

[6] Weyler, R. (2018, June 10). A brief history of environmentalism.
[7] Carson, R., Darling, L., Darling, L., Houghton Mifflin Company, & Riverside Press (Cambridge, Mass.),. (1962). *Silent spring*.

percent of the human generated waste annually. Figure 01 exhibits waste generated per capita by nation, the darker the yellow-orange, the more waste that is generated per capita. High-income countries have been shown to produce about 683 million tons of all of the world's waste, more than the lower-income and lower-middle-income countries combined (Figure 02).[8]

Figures 01

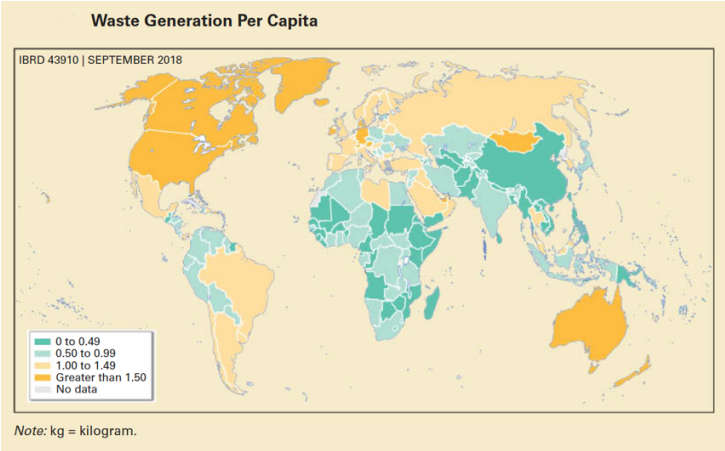
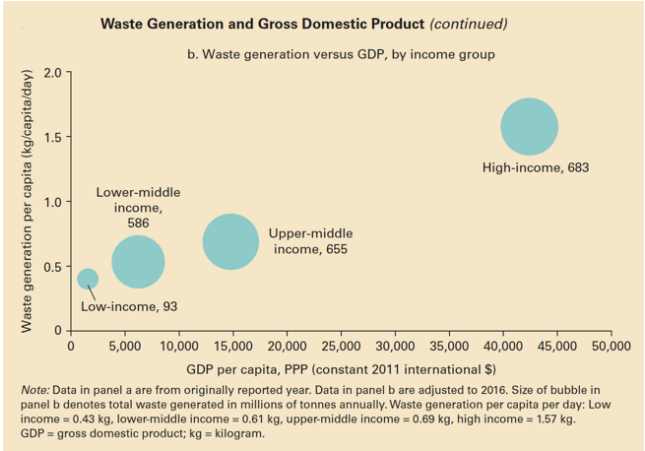


Figure 02



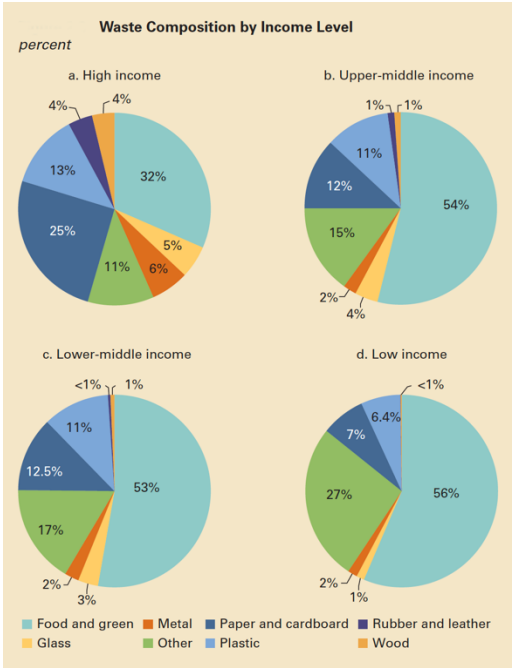
Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. 2018. What a Waste 2.0 : A Global Snapshot of Solid Waste Management to 2050. Urban Development;. Washington, DC: World Bank. © World Bank

Even though most of the world's wastes comes from high-income countries, the waste composition presents a different story. Based on the World Bank report, it is not surprising to see that plastic makes up the largest portion of the waste composition. There is a tremendous amount of plastic used in product packaging that can be seen in almost every industry, from the packaging of everyday grocery food items to the packaging of high-end luxury designer clothing products and basic mailing envelopes. Nevertheless, plastic is one of the most harmful to the environment and yet it is one of the cheapest ways for firms to package their products. The waste composition shows that the lower the income level the higher the proportion of plastic waste there is in their waste composition, meanwhile the higher the income level the lower the contribution to plastic waste there is in their waste composition. But this simply means that the high-income population produces more of every other composition of waste compared to all the other income levels (figure 03). History has shown that the environmental aspects of production and consumption are an extremely important part of the economy in which the GDP indicator

[8] Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. 2018. What a Waste 2.0 : A Global Snapshot of Solid Waste Management to 2050. Urban Development;. Washington, DC: World Bank. © World Bank. Pg. 3

and price values fail to capture. All this is not to say that the GDP indicator is wrong. Some of the issues raised previously were to show that the GDP indicator and prices cannot truly be the sole measure of economic well-being. There is nothing wrong with utilizing the GDP indicator, rather it is a matter of how GDP is being utilized. [9]

Figures 03



Kaza, Silpa; Yao, Lisa C.; Bhada-Tata, Perinaz; Van Woerden, Frank. 2018. What a Waste 2.0 : A Global Snapshot of Solid Waste Management to 2050. Urban Development;. Washington, DC: World Bank. © World Bank

When applying GDP in measuring well-being, there needs to be a recognition that the GDP indicator has deficiencies as an indicator of living standards. In order to deal with these deficiencies, the Commission on the Measurement of Economic Performance and Social Progress (CMEPSP) had suggested five ways to combat these deficiencies. “First, emphasize well-established indicators other than GDP in the national accounts. Second, improve the empirical measurement of key production activities, in particular the provision of health and education services. Third, bring out the household perspective, which is most pertinent for considerations of living standards. Fourth, add information about the distribution of income, consumption, and wealth to data on the average evolution of these elements. Finally, widen the

[9] Stiglitz, Joseph E.; Sen, Amartya Kumar; & Fitoussi, Jean-Paul. (2009). *Report by the commission on the measurement of economic performance and social progress.* . Commission on the Measurement of Economic Performance and Social Progress, Paris. pg. 7-8, 21-23, 85-88

scope of what is being measured."[10] The CMEPSP made known that there is a significant part of economic activities which are not reflected in the national accounts and that these activities take place outside of the markets. Therefore, GDP can only be one of several indicators that can help measure economic well-being.

THE ALTERNATIVE INDICATORS & MEASUREMENTS

Bhutan's Gross National Happiness (GNH)

In order to properly measure well-being, it must be recognized that well-being is multi-dimensional and requires objective and subjective data to capture its various dimensions simultaneously. There are countries around the world that have begun striving to measure their economic well-being with concrete initiatives. One of the most well-known and applied happiness indicators in a national context and that is prominently used to create policy incentives for the government, is Bhutan's Gross National Happiness (GNH) indicator. The GNH assumes that sustainable development should be at the core of economic progress and that it should have equal importance with non-economic aspects of well-being. The GNH is developed as an alternative framework for Bhutan's economic development alongside GDP and other national indicators. The GNH is an indicator that helps guide sectors in sustainable development, allocating resources to meet national targets, measuring progress over time, and compare progress throughout the nation of Bhutan.[11] Bhutan's GNH is a subjective indicator that gathers data from surveying citizens of diverse backgrounds and locales. The survey attempts to measure nine aspects, otherwise known as domains, that contribute to an individual's happiness. The first domain is the psychological well-being of individuals; how individuals are satisfied with various aspects of their life, such as social support, and emotional and spiritual satisfaction. The second domain is how an individual self-reports their physical and mental health. The third domain is the time use and what percent of an individual's day is spent doing labor activities, non-labor activities, and leisure. The fourth domain is an individual's level of academic attainment or knowledge of various subject matters and artisan skills. The fifth domain is an individual's engagement or participation in cultural diversity and resilience activities. The sixth domain is an individual's political participation, perspective on the government, and how involved they

[10] Ibid. pg. 22
[11] UN. General Assembly (65th sess. : 2010-2011). (2011, August 25). Happiness : Towards a holistic approach to development : Resolution / adopted by the General Assembly.

believe they are in expressing their fundamental rights and freedoms. The seventh domain is an individual's contribution to their community's vitality, observing the length of time they live in a certain city or town, if they participated in volunteerism, or if they have a sense of belonging in the places they live. The eighth domain is an individual's contribution to ecological diversity and resilience, such as how much fuel they consume, the trash they produce, their perspective on environmental issues, and their positive and negative interaction with wildlife. The ninth domain is an individual's standard of living which focuses on income, financial security, household debt, access to basic services, etc.[12] The first GNH indicator survey was conducted in 2006 with 474 questions. However, over the years, the questionnaire has been consolidated to 148 in 2015. The GNH index identifies and aggregates all the information in the surveys and applies a unique adaptation of the Alkire-Foster (AF) method that is used for measuring multidimensional concepts. This unique adaptation helps generate the GNH well-being results. Briefly speaking, in order to properly identify who is *happy* or who is *not-yet-happy* from the data of the surveys, the AF method is proven to count overlapping and or simultaneous deprivations that individuals' experiences in the various domains. The domains are either equally weighted or they are taken with different weights.[13] The weights are summed up and their deprivations indicate where they fall between *happy* or *not-yet-happy*. Table I presents how the GNH indicator breakdown each group, giving the population percentage in each category from the 2010 GNH index data. The

Table I

Overview of GNH domains and breakdown of indicators

	Definition of groups ~ Sufficiency in:	Percent of population who are:	Average sufficiency of each person across domains
HAPPY	**66%-100%**	**40.9%**	**72.9%**
Deeply Happy	77%-100%	8.3%	81.5%
Extensively Happy	66%-76%	32.6%	70.7%
NOT-YET-HAPPY	**0-65%**	**59.1%**	**56.6%**
Narrowly Happy	50%-65%	48.7%	59.1%
Unhappy	0-49%	10.4%	44.7%

Helliwell, John F., Richard Layard, and Jeffrey Sachs, eds. 2012. *World Happiness Report 2012*. New York: UN Sustainable Development Solutions Network.

[12] Centre for Bhutan Studies & GNH Research, 2016. *A Compass Towards a Just and Harmonious Society2015 GNH Survey Report*;. Thimphu, Bhutan.
[13] Oxford Poverty & Human Development Initiative (OPHI). *Alkire-Foster Method.*

GNH index cutoff was set at 66 percent, in which people are considered to be relatively *happy* when they have a sufficiency of 66 percent or more out of all the sum weights combined.[14]

The GNH index is a broad survey with questions that covers an array of dimensions. The responses to the questions in the survey give insight into the lives of individuals, directly from individuals across Bhutan. The survey takes into account not only factors that are related to GDP such as, income, financial status, academic attainment, consumption and living standards, etc., but it also accounts for information that is unrelated to GDP such as, self-reported time use, psychological well-being, community engagement, cultural involvement, ecological issues perspective, etc. The GNH index report does a fairly satisfactory analysis of the economic well-being of Bhutan. The report breaks down the data by various categories such as region, rural and urban, gender, and level of educational attainment. It analyzes and compares the current data with data from the previous GNH surveys. It observes the interlinkages across indicators and the changes in subjective happiness. The GNH index has taken a huge step forward in measuring economic well-being.

However, the GNH index survey is purely subjective and requires a sizeable group of government staff and volunteers to travel all over Bhutan in order to conduct the survey. The survey is conducted over a 5-month period, starting in January and ending in May, and it is only conducted once every 5 years. The survey is roughly conducted in under less than 2 quarters of the year. This gives rise to various issues due to such a lengthy period for gathering subjective data. One of the issues that could affect the data would be the time gap between the first group of surveys and the last group of surveys. Another would be the seasonal factors that affect people's livelihood, especially when Bhutan is known to be a mountainous country situated on the southern end of the Himalayan mountains.[15] The winter months like January and February could be difficult for people to engage in community or cultural gatherings or even travel for work or tend to livestock. Furthermore, the GNH index survey lacks the information that is provided by objective data. To fully measure economic well-being, it is crucial to obtain both the economic subjective and objective data. If the GNH index included data from the GDP index in its measures, it could provide a more solid foundation for policymakers to decipher and explain the complications that affect the nation's economic well-being. Complications such as wealth and

[14] Helliwell, John F., Richard Layard, and Jeffrey Sachs, eds. 2012. *World Happiness Report 2012*. New York: UN Sustainable Development Solutions Network.
[15] Karan, Pradyumna P. and Norbu, Dawa. "Bhutan". Encyclopedia Britannica, 10 Mar. 2021

health or income and educational attainment, or income and time spent doing non-labor activities, etc.

OECD Better Life Initiative – *How's Life?*

The Organisation for Economic Co-operation and Development (OECD) began researching and developing methods for measuring well-being and social progress in 2004. It had recognized that GDP provided only a partial perspective for the various domains which has some meaningful contribution to people's lives and that it fails to capture the true living conditions of individuals. The OECD launched the *OCED Better Life Initiative, How's Life?* in 2011 as an attempt to respond to the issues of measuring well-being. This initiative is an attempt at an international level to demonstrate and provide the foundation for a large set of well-being indicators for OECD countries. The OECD recognizes that "well-being is a complex phenomenon and many of its determinants are strongly correlated with each other, assessing well-being requires a comprehensive framework that includes a large number of components and that, ideally, allows gauging how their interrelations shape people's lives."[16] This framework in which the OECD is using to measure economic well-being will be focused on three pillars that revolve around an individual's happiness (figure 04). The first pillar is *material living* conditions which measure an individual's income, job, earnings, wealth, and housing. It is recognized that income and wealth have the capacity to capture the current and future consumption possibilities of individuals; while jobs and earnings capture the quality and the command in which individuals have over resources and the opportunity to fulfill their ambitions and cultivate their self-esteem. Furthermore, it is obvious that housing and the quality in which an individual is sheltered are essential to meet a basic need and it provides individuals with a sense of personal space, security, and privacy. The second pillar is *quality of life* which attempts to measures the work and life balance, health status, education, and various skills, social connections, personal security, civic engagement and governance, environmental quality, and most importantly the individual's subjective well-being. The OECD believes health plays a significant role for individuals, especially because it affects the performance in their everyday activities. Activities that are relevant to their well-being, such as going to work. Similarly, education is a great asset that has the capacity to raise the living standards of individuals and their society. Well-being also

[16] OECD (2011), How's Life?: Measuring Well-being, OECD Publishing, Paris.

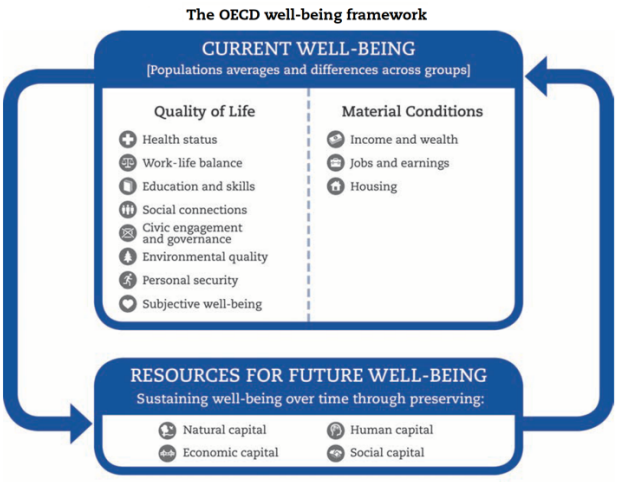
depends on the need for a balanced life between work and non-work activities. There is great value in having a job and being with family. But being able to spend time doing non-work-related activities outside of the two activities previously mentioned can help individuals stay healthy and productive. An individual's civic engagement and their perspective on the quality of governance can affect their well-being. This is because civic engagement and quality of governance allow individuals to have some additional sense of control over their lives. Social connections and human interaction help fulfill other aspects of an individual's life, such as having a sense of community and close relationships. The environment where individuals live can greatly affect their health and ability to do activities that can cultivate well-being and a good life. The subjective well-being aspect of this pillar can produce an important understanding of how individuals evaluate their emotions towards how satisfied they are with their life as a whole in relation to the results of their objective living standards and various factors that come into play. The third pillar is the *resources for future well-being*, which measures the sustainability and preservation of resources and capital such as, *natural capital* which encompasses natural assets and resources, *economic capital* which includes man-made and financial assets, *human capital* which refers to the skill sets of individuals and their future health, and *social capital* which refers to shared values, institutional arrangements that foster co-operation, and social norms. These four factors of *resources for future well-being* help define the well-being of the individual and society as a whole in the long run.[17] This framework structure was the foundation for *OCED Better Life Initiative, How's Life?* between 2011-2017 that was conducted once every 2 years.

The framework was altered and consolidated in 2020 by combining the pillar *quality of life* with *material conditions* and transforming them into 11 dimensions and *resources for future well-being* were transformed into 4 dimensions (figure 5). This revised framework elaborates on the OECD methods of measuring the various dimensions. The revised framework also put emphasis on *current well-being* and the data that focus on the living conditions of individuals, households, and communities and how each individual experience lives in the "here and now." Another aspect of the well-being framework that had developed prominently over the years is the recognition of large inequalities that was briefly alluded to in the first few *How's Life?* reports. In order to completely measure well-being, the OECD recognizes that national averages across the OECD countries often mask large inequalities. The revised distribution of *current well-being*

[17] Ibid.

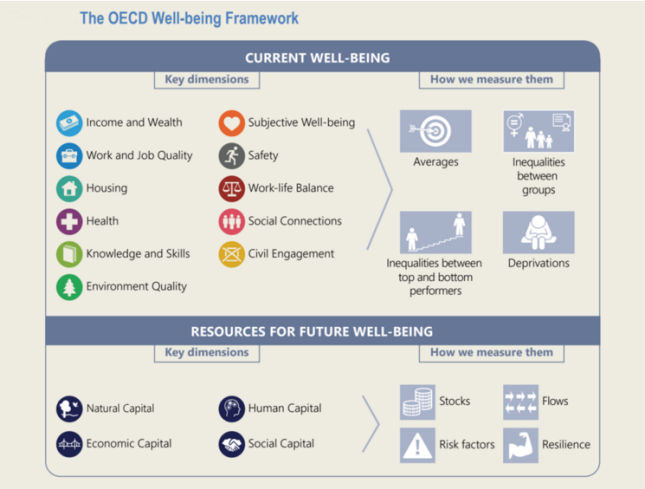
takes into account three types of inequality that have been recognized over the years as the well-being framework evolved. These types of inequalities are gaps between population groups, such as the richest 20 percent of individuals compared to those who are of the poorest 20 percent of individuals, and deprivation in the share of those falling below a given achievement threshold. The *resources for future well-being* were also developed in that these capital stocks and flows extend beyond what is owned by private agents and are essentially public goods. Furthermore, the *resources for future well-being* strive to highlight some key risk factors and resilience factors that show a great possibility of affecting the well-being value of the future of these stocks and flows.[18]

Figure 04



OECD (2017), How's Life?: Measuring Well-being, OECD Publishing, Paris.

Figure 05



OECD (2020), How's Life?: Measuring Well-being, OECD Publishing, Paris.

The OECD well-being framework is a major advancement compared to the GNH indicator and the GDP indicator. This framework contains key elements found in the GNH indicator, and it utilizes the objective data from the GDP indicator, national population data, national health data, and other national statistical data. The framework includes outcomes of both subjective and objective data. The OECD recognizes "that objective evidence about people's life circumstances can be usefully complemented by information about how people experience their lives."[19] This approach puts people at the center of the study, incorporates their concerns,

[18] OECD (2020), How's Life?: Measuring Well-being, OECD Publishing, Paris.
[19] OECD (2017), How's Life?: Measuring Well-being, OECD Publishing, Paris.

feelings, and states of mind, while also considering how the outcome of the distribution of well-being is dispersed throughout the population. In observing well-being, it is not only important to understand if life is actually getting better for the average population, but it is even more important to understand if life is actually getting better across all groups in society.

As diverse as the 41 participating nations that are in the OECD well-being report, ranging from 1st, 2nd, and 3rd world nations, the majority of the participating members are highly developed 1st world western nations, with the exception of Japan, Korea, Australia, and South Africa. The remaining few participating in the report are 2nd and 3rd world nations such as Russia, Brazil, Chile, Colombia, Costa Rica, and Mexico. The inclusion of all these nations into one well-being report raises some concerns, especially when the data are combined to measure the various dimensions in the well-being framework. The first concern would be the large gap in household income and job quality. The 1st world nations' job quality is extremely different than those in 2nd and 3rd world countries. Figure 06 exhibits the global contribution of the industry sector by nation, the darker the nation the higher the contribution. Figure 07 exhibits the global contribution of the services sector by nation, the darker the nation the higher the contribution. Countries such as the USA, UK, Germany, Brazil, and Australia are heavily finance and technology-driven with an immense focus on the services sector rather than the industry sector. While countries such as Colombia, Chile, Mexico, and South Korea are having a greater focus on the industry sector vs the service sector.[20]

Figure 06

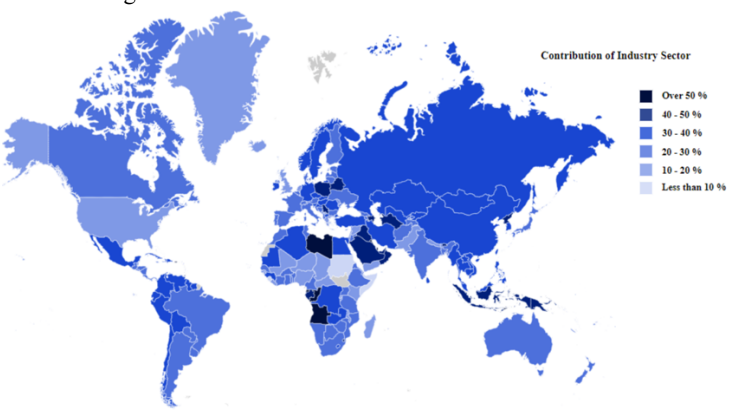
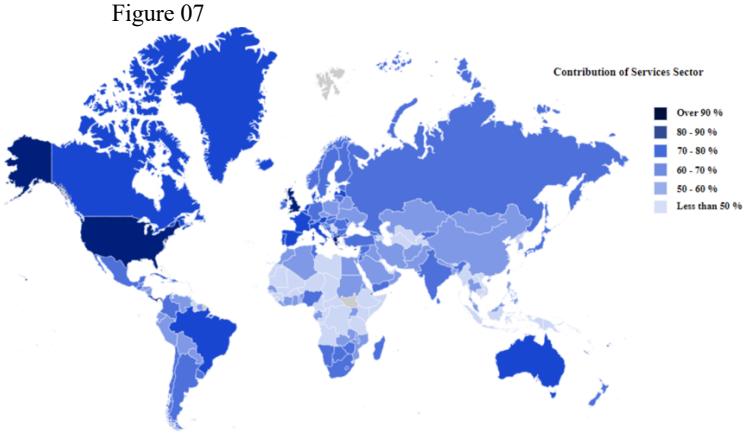


Figure 07



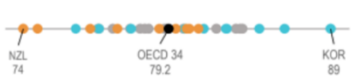
Map : Statistictimes.com. *List of Countries by GDP Sector Composition.* (November 20, 2018).
Data : CIA.gov. *Field Listing – GDP – composition, by sector of origin* (2018).

[20] Statistictimes.com. *List of Countries by GDP Sector Composition.* (November 20, 2018).
CIA.gov. *Field Listing – GDP – composition, by sector of origin* (2018).

Due to these differences, the objective data gathered from the GDP and various national data of these nations can range from one extreme to another and are observed to skew the data. Table II exhibits this skewness in the income and wealth dimension, housing dimension, and work and job quality dimensions between the participating nations. This skewness does not just affect income and wealth dimension, housing dimension, and work and job quality dimensions, it

Table II

Well-being today: Income and Wealth, Housing, Work and Job Quality

	Headline indicator	Type	OECD average and range, 2018 or latest available year	OECD average change since 2010	No. of countries consistently improving	No. of countries consistently deteriorating
Income and wealth	**Household income** (household net adjusted disposable income, USD at 2017 PPPs*, per capita)	Average		6%	20	2
	Household wealth (median net wealth, USD at 2016 PPPs)	Average		-4%	3	6
	S80/S20 income share ratio (the household income for the top 20%, divided by the household income for the bottom 20%)	Inequality		- 0.03 ratio points	6	11
Housing	**Housing affordability** (share of disposable income remaining after housing costs)	Average		+0.1 percent. points	11	9
	Overcrowding rate (share of households living in overcrowded conditions)	Inequality		-2.6 percent. points	10	6
Work and Job Quality	**Employment rate** (employed people aged 25-64, as a share of the population of the same age)	Average		+4.8 percent. points	31	1
	Gender wage gap (difference between male and female median wages expressed as a share of male wages)	Inequality		-1.2 percent. points	10	2
	Long hours in paid work (share of employees usually working 50+ hours per week)	Inequality		-1.7 percent. points	16	2

Note: The snapshot depicts data for 2018, or the latest available year, for each indicator. The colour of the circle indicates the direction of change, relative to 2010, or the closest available year: consistent improvement is shown in blue, consistent deterioration in orange, no clear trend in grey, and insufficient time series to determine trends in white. For each indicator, the OECD country with the lowest (on the left) and highest (on the right) well-being level are labelled, along with the OECD average (in black, and unless all 37 members are included detailing the number of countries in the average). See Box 1.3 for details on how trends are assessed. * Unpaid work includes routine housework, shopping for goods and services (mainly food, clothing and items related to accommodation), caring for household members (children and adults) and non-household members, volunteering, travel related to household activities and other unpaid work.
Source: OECD calculations, based on the sources listed in Annex 1.A.

OECD (2020), How's Life? 2020: Measuring Well-being, OECD Publishing, Paris

also affects all the other dimensions that are in the OECD well-being report. Table III exhibits larger skewness that affected other indicators and dimensions in the well-being report. This gives further evidence that there are large gaps between the various participating nations concerning GDP, prices, wages, and work and job quality. These gaps issues can have great effects on the

Table III

Well-being today: Health, Knowledge and Skills, Environmental Quality, Subjective Well-being, Safety

	Headline indicator	Type	OECD average and range, 2018 or latest available year	OECD average change since 2010	No. of countries consistently improving	No. of countries consistently deteriorating
Health	**Life expectancy** (number of years a newborn can expect to live)	Average	COL 74.6 — OECD 80.5 — JPN 84.2	+14 months (1.5%)	35	0
	Gap in life expectancy by education (among men at age 25)	Inequality	HUN 14 — OECD 18 7.6 — CAN 4	No time series		
Knowledge and Skills	**Student skills in science** (PISA mean scores)	Average	COL 413 — OECD 489 — EST 530		3	18
	Students with low skills (share with low scores in maths, reading and science)	Inequality	COL 38 — OECD... — EST 5	No time series		
Environmental Quality	**Access to green space** (share of urban population with access within 10 minutes' walking)	Average	ISL 61 — OECD EU 26 93 — FIN 100	No time series		
	Exposure to outdoor air pollution (share of population > WHO threshold)	Inequality	HUN, ISR, SVK 100 — OECD 36 62.8 — CAN, EST, FIN, NZL 0	-11.6 percent. points	32	0
Subjective Well-being	**Life satisfaction** (mean value on a 0-10 scale)	Average	TUR 5.7 — OECD 27 7.4 — COL 8.3	+0.2 scale points	15	2
	Negative affect balance (share of population reporting more negative than positive feelings and states yesterday)	Inequality	TUR 29 — OECD 13 — ISL 5	-0.1 percent. points	9	8
Safety	**Homicides** (per 100 000 population)	Average	COL 24.3 — OECD 2.4 — GBR, JPN 0.2	-0.8	18	0
	Gender gap in feeling safe (percentage difference that women feel less safe than men when walking alone at night)	Inequality	AUS -30 — OECD -16 — AUT -7	-3.5 percent. points	13	0

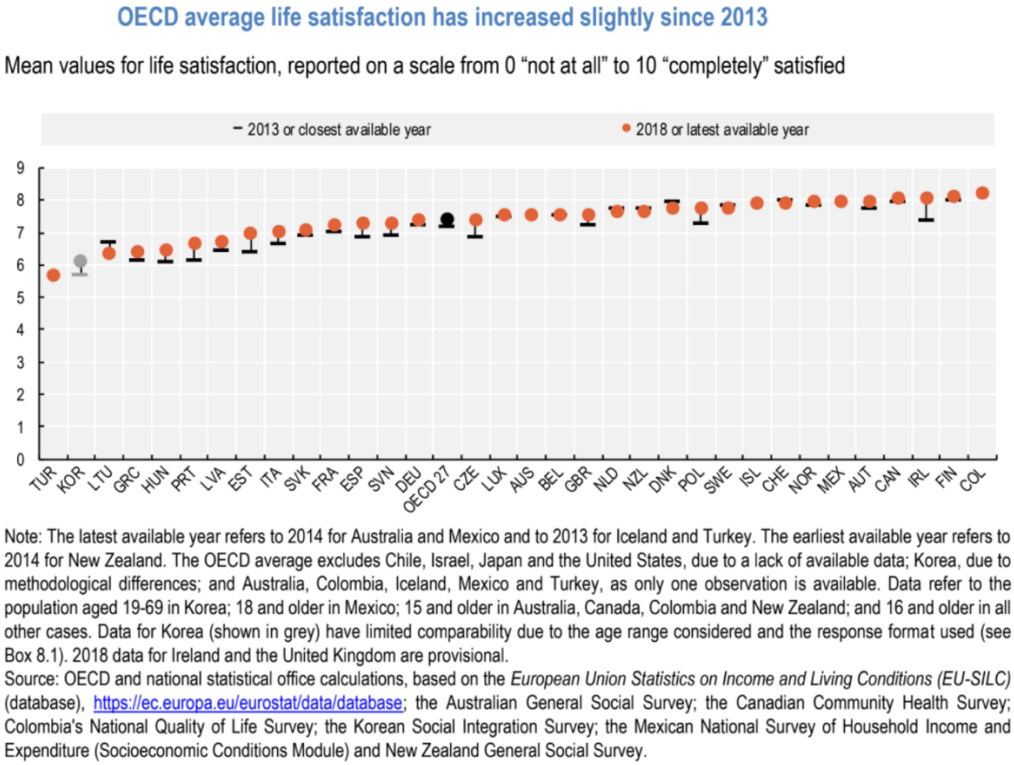
Note: The snapshot depicts data for 2018, or the latest available year, for each indicator. The colour of the circle indicates the direction of change, relative to 2010, or the closest available year: consistent improvement is shown in blue, consistent deterioration in orange, no clear trend in grey, and insufficient time series to determine trends in white. For each indicator, the OECD country with the lowest (on the left) and highest (on the right) well-being level are labelled, along with the OECD average (in black, and unless all 37 members are included detailing the number of countries in the average). See Box 1.3 for details on how trends are assessed.
Source: OECD calculations, based on the sources listed in Annex 1.A.

OECD (2020), How's Life? 2020: Measuring Well-being, OECD Publishing, Paris

capacity to capture the current and future consumption possibilities of individuals and households. Similarly, the gaps for jobs and earnings do not capture the same quality of command which individuals have over resources, and which is observed to give them the opportunity to fulfill their ambitions and cultivate their self-esteem.

A second concern comes in relation to the issue raised that the majority of participating members in the OECD report come from developed nations. Since living standards for underdeveloped nations are quite stark compared to developed nations, the self-reporting of life satisfaction and experiences with positive or negative feelings can be greatly affected. For instance, if a person from the USA or the UK was surveyed on their life satisfaction, their perspective may be similar to those in Mexico or Chile. However, the condition for a satisfactory life is extremely different. Such as a person in the USA or the UK may deem their life satisfactory based on the restaurants they go to now and then, or the material things they purchase, or the raised income they received along with the promotion they earned. Compare that to a person in Mexico or Chile, who may deem their life satisfactory based on having a stable income or not, or the amount of food they can put on their dinner table, or the ease of accessing and using public transportation to get to and from work. Figure 08 exhibits the OECD average life satisfaction is scaled between 0 for “not a all” satisfied to 10 for “completely” satisfied between 2013 and 2018. The average for the majority of the participating nations is between 7 and 8. Colombia and Mexico have high averages alongside Finland and Canada. This average life satisfaction does not give a full account of what disparities people in countries like Mexico and Colombia are coping with.

Figure 08

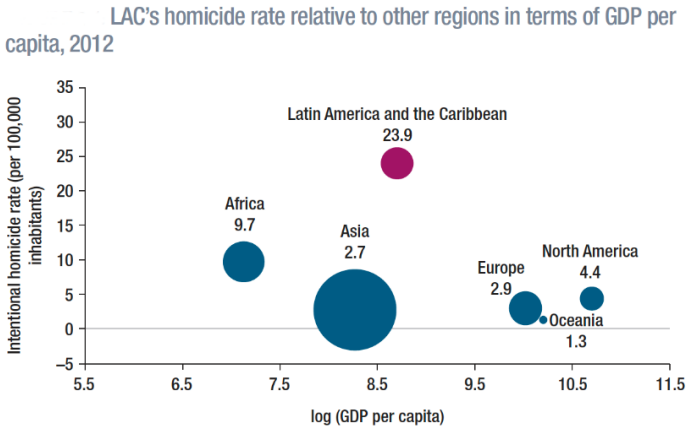


Note: The latest available year refers to 2014 for Australia and Mexico and to 2013 for Iceland and Turkey. The earliest available year refers to 2014 for New Zealand. The OECD average excludes Chile, Israel, Japan and the United States, due to a lack of available data; Korea, due to methodological differences; and Australia, Colombia, Iceland, Mexico and Turkey, as only one observation is available. Data refer to the population aged 19-69 in Korea; 18 and older in Mexico; 15 and older in Australia, Canada, Colombia and New Zealand; and 16 and older in all other cases. Data for Korea (shown in grey) have limited comparability due to the age range considered and the response format used (see Box 8.1). 2018 data for Ireland and the United Kingdom are provisional.
Source: OECD and national statistical office calculations, based on the *European Union Statistics on Income and Living Conditions (EU-SILC)* (database), https://ec.europa.eu/eurostat/data/database; the Australian General Social Survey; the Canadian Community Health Survey; Colombia's National Quality of Life Survey; the Korean Social Integration Survey; the Mexican National Survey of Household Income and Expenditure (Socioeconomic Conditions Module) and New Zealand General Social Survey.

Helliwell, John F., Richard Layard, and Jeffrey Sachs, eds. 2012. *World Happiness Report 2012*. New York: UN Sustainable Development Solutions Network.

In a 2017 report on crime by Laura Chioda for the World Bank, reported that Latin American Countries have the highest homicide rate when compared to all other regions in relation to GDP per capita in 2012 (figure 09).

Figure 09



Source: World Bank, based on data from UNODC (2012).
Note: The size of the spheres is proportional to population.

Chioda, Laura. 2017. Stop the Violence in Latin America : A Look at Prevention from Cradle to Adulthood. Latin American Development Forum;. Washington, DC: World Bank.

Specifically, Mexico and Colombia have some of the highest homicide rates in Latin America (figure 10 & 11). Furthermore, the report indicated that most of the locations of all crimes happen within an individual's home, their neighborhood, and their municipality of residence. The report also analyzed subject data, surveying people on the margin effect of neighborhood safety on victimization, showing that there is a large negative percentage of the people in Latin America who feel very safe. This shows that people do not feel safe if the "very safe" indicator is below negative 20.[21] This further provides evidence that the OECD report needs to differentiate between developed and underdeveloped nations for a more complete perspective of economic well-being instead of homogenizing nations with such extremities.

Figure 10

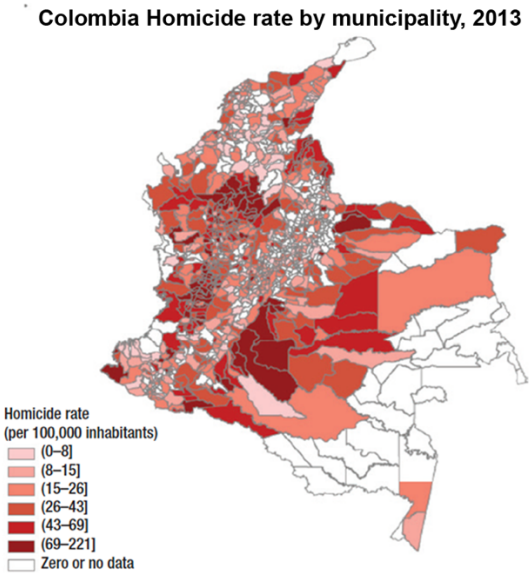
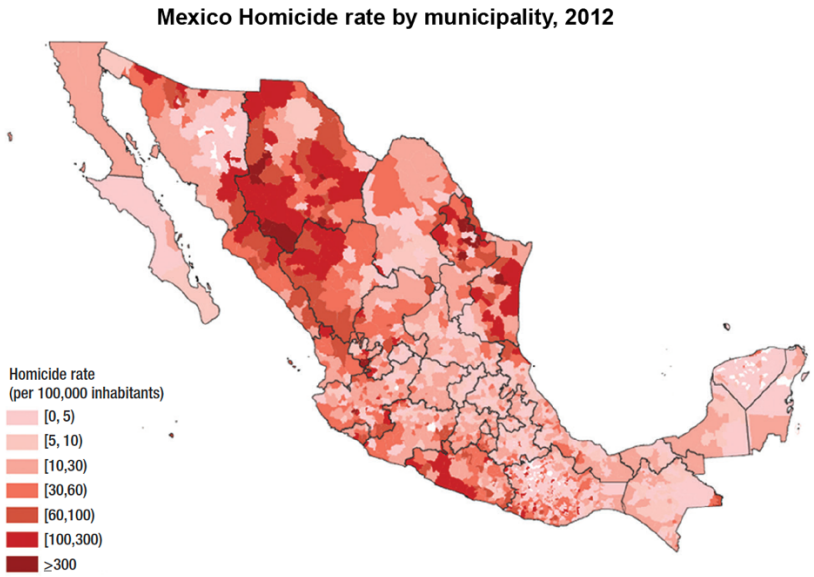


Figure 11



Chioda, Laura. 2017. Stop the Violence in Latin America : A Look at Prevention from Cradle to Adulthood. Latin American Development Forum;. Washington, DC: World Bank.

Sustainable Development Solutions Network – *World Happiness Report*

The Sustainable Development Solutions Network (SDSN) began its work with measuring global economic well-being and published its first report titled the *World Happiness Report* in 2012. Since then, *World Happiness Report* has been published annually, reporting on the global economic well-being measured by SDSN. The first publication presented the purpose of the

[21] Chioda, Laura. 2017. Stop the Violence in Latin America : A Look at Prevention from Cradle to Adulthood. Latin American Development Forum;. Washington, DC: World Bank.

report as a publication that is responding to the need for understanding happiness beyond a rapidly growing industrial and technological economy that we are experiencing in our lives. As the gross national product (GNP) per capita rises with technologies of unimaginable sophistication for the world to enjoy, the life satisfaction of individuals remained nearly constant amongst this growth. There is an urgency for us to face the truth that our world is sick with anxiety, poverty, environmental deterioration, and unhappiness even as it is offering so many advancements and innovations. The SDSN has developed various measurements for well-being with the following four pillars at its core: "ending extreme poverty, social inclusion, environmental sustainability, and good governance." The SDSN recognizes that developing countries such as China, which was successfully able to eliminate the overall poverty rate by half, countries in the African continent are lagging behind. Beyond the continent of Africa, there remains extreme poverty and hunger all over the world. The SDSN is determined to find ways in order to combat these issues. As the world becomes more technologically driven and consumption increases with population growth, there needs to be a recognition of our planetary bounds. Humanity as a species has to find a way to avoid specific limits of environmental damage; which has been proven to be irreparable to the planet and our future generations. The advancement of modern technology can help develop the tools which can help humanity avoid reaching these limits. However, there needs to be good governance that can direct people in shaping their path in life and the lives of others. As stated in the 2012 *World Happiness Report* "Good governance is not only a means to an end, but also an end in itself…"[22] This goes to say that every individual; for every nation should be able to benefit from the technological advances, economic progress, and good governance. This way social inclusion will have a chance to manifest and change to be possible.

Building on the work done in Bhutan with the GNH indicator, the UK Office for National Statistics Experience measure on subjective well-being, and the OCED guidelines on the measurement of subject well-being, the SDSN will incorporate what it recognizes to be beneficial for its independent measurements. The SDSN states that it will utilitize the data "from the Gallup World Poll (GWP), the World Values Survey (WVS), the European Values Survey (EVS), and the European Social Survey (ESS)" in conducting its analysis. With the data gathered

[22] Helliwell, John F., Richard Layard, and Jeffrey Sachs, eds. 2012. *World Happiness Report 2012*. New York: UN Sustainable Development Solutions Network. Pg. 8

from these various surveys, the SDSN will "consider the levels and uses of affect measures, and compare affect measures and life evaluations from other surveys covering fewer countries."[23] Beginning with its 2013 *World Happiness Report* the SDSN published its first *regression to explaining the average happiness* across 149 countries with eight surveys ranging from the years 2005 to 2012. The number of countries measured in the regression changes each year, depending on the data collected by the GWP and the various surveys. *The regression to explain the average happiness across various countries* is a purely subjective regression. The SDSN utilizes a Cantril ladder when questioning participants about their feelings and perspective of their life satisfaction. The respondents must give a numerical value on their perspective of their life today from a scale of 0, meaning they are experiencing the worst possible life, to 10, meaning they are experiencing the best possible life. Based on the surveys, the SDSN is able to compare and explain the international differences in the Cantril ladder, positive affect, and negative affect on life evaluations and emotions with the usage of 6 key variables, log GDP per capita, social support, healthy life expectancy at birth, freedom to make life choices, generosity, and perceptions of corruption.[24] These variables comparing *the regression for explaining the average happiness* in 2013 and the regression in 2020, had shown that the overall Cantril ladder with the positive affect had a 22 percent drop and negative affect had a 9 percent increase. Meaning that people did not feel like they had the best possible life when surveyed in 2020 compared to when surveyed in 2013. The regression is analyzed for each annual report and the SDSN utilizes the results from these regressions to generate a Dystopia measurement for happiness. According to the SDSN, "Dystopia is a fictional country that has the world's lowest national average value for each of the six key variables used in.."[25] *the regression to explain average happiness across various countries*. The happiness in Dystopia for the years 2010 to 2012 was calculated in the 2013 *World Happiness Report* to have been 1.98, and for the years 2017 to 2019 was calculated in the 2020 *World Happiness Report* to have been 1.97. Indicating that the average happiness in Dystopia has decreased in 2020 compared to 2013. However, in the 2021 *World Happiness Report* the data for the years 2018 to 2020 were calculated and reported to show that happiness in Dystopia was up at 2.43, much better than in 2013 and 2020.

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[23] Ibid. pg. 11
[24] Helliwell, John F., Richard Layard, and Jeffrey Sachs, eds. 2013. *World Happiness Report 2013*. New York: UN Sustainable Development Solutions Network. Pg. 10
[25] Ibid. Pg. 11

The annual *World Happiness Report* has a different focus each year. Based on the focus of the publishing year, the *World Happiness Report* would alter its analysis to cover the areas that are related to the subject in question. In 2013 the focus was on psychological well-being, ethics, and testing the connection between an individual's life satisfaction and their human development. In 2015 the focus was on geographic happiness, gender and age, children, human values, and the investment in social capital. In 2016 the focus was on promoting and distributing happiness ethics and the development of happiness and sustainability. In 2017 the focus was on the social foundation for world happiness, China's growth and happiness, Africa's low levels of happiness, and the loss of the American's happiness. In 2018 the focus was on the mass migration in search of safety, jobs, and well-being that was developing across the globe. In 2019 the focus was on the role of the digital world, the link between voting and happiness, and addiction and unhappiness that was increasing in America. In 2020 the focus was on how the quality of our environmental conditions can affect our happiness, social environment in urban vs rural communities, and sustainable development. In 2021 the focus was on the Covid-19 pandemic engulfing the world.[26]

The annual SDSN *World Happiness Report* is a resourceful, multifaceted, and extremely versatile report that adapts its reports to the most pressing issues of the day. The data it analyzes are both subject and objective, which gives the findings in their report a more well-rounded analysis. Unlike the OECD, the SDSN gathered data from a wider net of countries and was not bounded to chances of skewness when running their analysis. The interesting part of these annual reports are the measurement of Dystopia, which is presented at the beginning of every report since 2013. Even though Dystopia is a fictional place, it is essentially all nations merged into one, it is like measuring humanity on planet Earth. Beginning the report with the analysis of the surveys conducted for the *regressions to explain the average happiness across countries* helps remind the audience that the *World Happiness Report* is people-centric. Everything else that is discussed whether it be geographic happiness or investments or growth or the environment etc. is a product of human activity and its way of living.

Regardless of how resourceful or multifaceted or versatile the *World Happiness Report* may seem to be, it is extremely difficult to direct policy on a national level using the results published by these reports. The *World Happiness Report* will certainly play a significant role for

[26] World Happiness Report 2012-2021. New York: UN Sustainable Development Solutions Network.

international organizations that are committed to maintaining international peace and security or promoting peace and unifying economic systems or breaking down barriers to trade and development. International organizations such as the United Nations, the African Union, the European Union, the World Bank, and the International Monetary Fund. However, the report is very broad and lacks the inter-personal link between people and their nation.

POSSIBLE APPLICATION IN A NATION CONTEXT

There needs to be a report that closely resembles the *World Happiness Report* for individual nations, and it is crucial that they are conducted in an independent non-biased manner. Nations such as the USA can conduct independent reports on their states in order to understand how the economic well-being is being developed or not developed in various parts of the country. The USA already has an abundance of measurements and surveys available to conduct a fairly complete overview of each state's well-being along with the nation as a whole. The data collected and analyzed by the Federal Reserve, the Bureau of Labor Statistics, and the Census Bureau are enough to begin to bring together a collection of valuable data for analyzing the economic well-being of Americans. It is clear that the GDP indicator is limited in its capacity and was never meant to be an indicator for economic well-being. Nevertheless, the data it holds is a treasure trove of information that can link inequalities and conditions that undermines well-being directly to its causes. Even though the USA still lacks significant subjective data, it can utilize the Census Bureau and the census data to form surveys that can contribute to the measurement of well-being. The current Census Bureau surveys are not conducted frequently and they contain very few questions that address the matter of individual perspectives, feelings, and life satisfaction. Therefore, it is crucial for the Census Bureau to produce a survey that can be conducted on a large scale for the majority of the population. With such a survey, it will contribute greatly to the framework and complement the other indicators and reports stated previously.

The CMEPSP has identified at least 8 dimensions that countries have in common when measuring economic well-being.

1. Material living standards (income, consumption, and wealth);
2. Health;
3. Education;
4. Personal activities including work

5. Political voice and governance;
6. Social connections and relationships;
7. Environment (present and future conditions);
8. Insecurity, of an economic as well as a physical nature.[27]

The USA and other individual nations can build a survey utilizing these common measurements as baseline dimensions. Once they produce a survey with such a common structure, it should be developed further to address the issues pertaining to various states or locales. In this way, there would be a significant level of confidence that a large number of the population within the country is represented in a survey.

CONCLUSION

Governments such as the USA should consider using a broader concept of well-being, instead of limiting itself to GDP. Economic growth can be detrimental if it does not go hand in hand with economic well-being. Governments must realize that money measures of economic performances and living standards are extremely limited in nature. There needs to be larger-scale data that is focused on happiness, utilizing appropriate indicators that can direct policymakers in the right direction. Nations have to utilize their various national statistical offices to think about expanding their national statistical systems to embrace, collect, and analyze content on well-being. With the support from such national statistical offices, policymakers can find ways to ensure that the minimum conditions for happiness can be pursued. Such as, offering more access to food and basic services, social protection and human rights, and lower inequalities for all.[28]

[27] Stiglitz, Joseph E.; Sen, Amartya Kumar; & Fitoussi, Jean-Paul. (2009). *Report by the commission on the measurement of economic performance and social progress.* . Commission on the Measurement of Economic Performance and Social Progress, Paris. Pg. 14-15

[28] UN. General Assembly (65th sess. : 2010-2011). (2011, August 25). *Happiness : Towards a holistic approach to development* : Resolution / adopted by the General Assembly.

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