Data Science Case Study

Facts

When the RBI slashes its repo rate, it expects the banks to lower their interest rates charged on loans. This means, the loans offered to the customers have lesser interest rates, decreasing the EMI as well. But the banks deliberately delay the reduction of the interest rate to make money. However, when there's a hike in the repo rate, banks are quick to increase their lending rates.

Description: In the event of inflation, central banks increase repo rate as this acts as a disincentive for banks to borrow from the central bank. This ultimately reduces the money supply in the economy and thus helps in arresting inflation. ... Repo and reverse repo rates form a part of the liquidity adjustment facility.

Higher inflation will raise the cost of living. The impact on workers depends on what happens to nominal wages. For example, if inflation is caused by rising demand and falling unemployment, firms are likely to raise wages to keep attracting workers. In this case, workers real wages will continue to rise.

The Effects of Inflation

As inflation rises, in addition to businesses being forced to raise their prices, banks are forced to raise interest rates in order to maintain a profit margin and higher rates means that marginal businesses will fail, thus increasing unemployment and harming the overall economy.

Ideally, a low repo rate should translate into low-cost loans for the general masses. When the RBI slashes its repo rate, it expects the banks to lower their interest rates charged on loans. This means, the loans offered to the customers have lesser interest rates, decreasing the EMI as well.

Similarly, when there’s an increase in the repo rate, loans for the customer are much more expensive because of the hike in the interest rates. This is because commercial banks acquire funds from the central bank at higher prices, which forces them to bump up their lending rates.

However, this scenario doesn’t always play out. It has been observed that when the Reserve Bank of India slashes its rates, banks take time to reduce their lending rates. However, when there’s a hike in the repo rate, banks are quick to increase their lending rates.

GDP & GPI

https://www.investopedia.com/articles/economics/08/genuine-progress-indicator-gpi.asp

GDP is gross domestic product. GDP can increase after a car accident or a major flood. GDP can grow rapidly during a war or after a terrorist attack. If all of Chicago caught fire once again and burnt to the ground, the rebuilding effort just might boost GDP. This is because GDP is very susceptible to the broken window fallacy—false signals of rising prosperity when obvious destruction has taken place.

However, from the perspective of a citizen living with the day-to-day realities of life, GDP can be rather misleading, which is why the genuine progress indicator (GPI) was created in 1995 by a socially responsible think tank called Redefining Progress. The indicator was developed as an alternative to the traditional GDP measure of a nation's economic and social health.

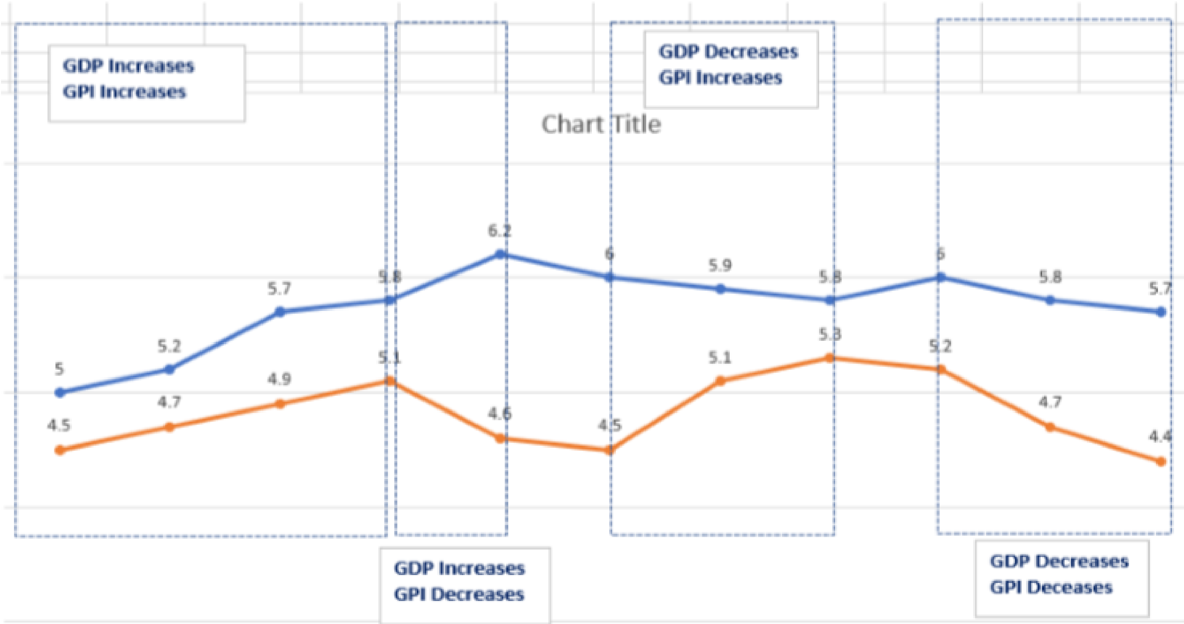
Although GPI and GDP calculations are based on the same personal consumption data, GPI provides adjustment factors—variables designed to apply monetary values to nonmonetary aspects of the economy. The variables fall into the following general categories:

• Personal consumption - This number is the same data used to calculate GDP. • Income distribution - GPI is adjusted upward when a greater percentage of the nation's income goes to the poor because an income increase provides a tangible benefit to the poor. GPI is adjusted downward when the majority of a nation's increased income goes to the rich. GDP is only concerned with the sum of all exchanged goods and services, not the distribution of their proceeds. If five individuals each earn $200,000, GDP treats that the same as one individual earning $800,000 and four individuals earning $50,000 each. • Housework, volunteering, and higher education - GPI factors in the value of the labor that goes into housework and volunteering. It also factors in the benefit of an increasingly educated populace. • Service of consumer durables and infrastructure - Money spent on durable goods is treated as a cost, while the value the purchases provide is treated as a benefit. Longlasting goods that provide benefits without having to be frequently repurchased are viewed positively. Goods that wear out quickly and drain consumers' wallets when they must be replaced are viewed negatively. GDP, on the other hand, views all expenditures as good news. Infrastructure spending by the government is treated similarly: If spending provides a long-lasting benefit, GPI views it as a positive; if spending drains the government's coffers, GPI views it as a negative. Again, GDP views all spending as positive. If the U.S. government spends $2 billion developing a new jet warplane that never lifts off the ground, GDP treats that the same as a hospital delivering $2 billion of cheap medicine or a tech entrepreneur selling $2 billion worth of new software. • Crime - Rising crime costs money in legal fees, medical bills, replacement costs, and other outlays. GDP views this spending as a positive development. GPI views it as a negative. • Resource depletion - When wetlands or forests are destroyed by economic activity, GDP views the events as good news for the economy; GPI views these events as bad news for future generations.

• Pollution - Pollution is good news for GDP. Industry gets paid once for the economic activity that creates pollution and again when money is spent to mitigate the pollution. GPI views pollution as a negative. • Long-term environmental damage - Global warming, nuclear waste storage, and other long-term consequences of economic activity are factored into GPI as negatives. • Changes in leisure time - Prosperity should lead to an increase in leisure time. Most modern workers would disagree with this theory. GPI views an increase in leisure as a positive and a decrease in leisure as a negative. • Defensive expenditures - Defensive expenditures refer to medical insurance, auto insurance, health care bills, and other expenses that are required to maintain quality of life. GPI views these as a negative. GDP views them positively. • Dependence on foreign assets - When a nation is forced to borrow from other nations to finance consumption, GPI factors in the result as a negative. If the borrowed money is used for investments and benefits the country, it is viewed as a positive.

Sample Data

Year	GDP	GPI
2010	5	4.5
2011	5.2	4.7
2012	5.7	4.9
2013	5.8	5.1
2014	6.2	4.6
2015	6	4.5
2016	5.9	5.1
2017	5.8	5.3
2018	6	5.2
2019	5.8	4.7
2020	5.7	4.4



What will be effect on the following

Goods	**GDP Increases GPI Increases**	**GDP Increases GPI Decreases**	**GDP Decreases GPI Increases**	**GDP Decreases GPI Decreases**
Sale of whitegoods				
Sale of Insurance				
Home protection systems				
Investment in gold				
Investment in homes				
Investment in stock market				
Sales of healthcare				