

# The Relative Prosperity Friction Index (RPFI): A Novel Metric for Quantifying Experienced Economic Well-Being

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## ABSTRACT

For decades, traditional macroeconomic indicators such as Gross Domestic Product (GDP) have served as the primary benchmark for assessing national economic performance. However, these metrics inherently fail to capture the lived reality of individuals, often obscuring the structural frictions that degrade the quality of life despite aggregate economic expansion. This paper introduces the Relative Prosperity Friction Index (RPFI), a novel theoretical construct designed to bridge the widening chasm between systemic economic growth and subjective individual prosperity. By mathematically integrating disposable income, debt servicing burdens, localized core inflation gaps, and a localized sentimental index of economic security, the RPFI provides a comprehensive measure of "liquid joy" versus "survival maintenance." Through an extensive literature review covering subjective well-being, inflation inequality, and the psychological burdens of debt, this paper argues that the RPFI offers a superior heuristic for understanding the socioeconomic health of a populace. The conceptualization of the formula, detailed variable explanations, methodological applications, and implications for macroeconomic policy are thoroughly explored to establish the RPFI as a vital tool for twenty-first-century economic analysis.

## 1. Introduction

The foundation of modern macroeconomic analysis rests upon a suite of indicators designed in the mid-twentieth century to measure the total output and systemic capacity of industrialized nations. Chief among these indicators is Gross Domestic Product, a measure that aggregates the total monetary value of all finished goods and services produced within a country's borders in a specific time period. Originally developed as a tool for national accounting during the Great Depression and the subsequent global conflicts, GDP was never intended to serve as a comprehensive proxy for societal well-being or individual prosperity. In recent decades, an unmistakable divergence has emerged between aggregate economic indicators and the subjective financial security experienced by the general populace. Stock markets frequently reach unprecedented highs, and corporate profits shatter records, yet a substantial portion of the population reports increasing levels of financial distress. This phenomenon highlights a critical structural flaw in how prosperity is conceptualized and measured. To address this glaring analytical deficiency, this paper conceptualizes and introduces the Relative Prosperity Friction Index. The core objective of this index is to quantify the proportion of an individual's financial resources that are genuinely available for discretionary, life-enhancing activities, as opposed to resources consumed by systemic friction. The necessity for such a metric is underscored by the complex realities of modern economies, where stagnant real wages intersect with skyrocketing costs for housing, education, and healthcare.

## 2. Literature Review

The pursuit of a metric that accurately captures the human experience within an economic system requires a multidisciplinary synthesis of macroeconomics, behavioral psychology, and sociology. The critique of Gross Domestic Product as a holistic measure of progress is well documented (Casau, Ferreira Dias, & Leite Mota, 2024). Researchers have increasingly turned to subjective measures of well-being to capture the nuanced realities of economic life (Veenhoven, 2007; Diener & Tov, 2011). Material conditions, particularly employment status and disposable income, have a profound impact on subjective well-being (Arrondo, Cárcaba, & González, 2021). Furthermore, inflation does not impact all demographic groups equally. The phenomenon of "cheapflation" reveals that prices rise fastest for lower-quality necessities disproportionately consumed by poorer households (Chen, Levell, & O'Connell, 2024; Hobijn & Lagakos, 2003). Finally, the modern economy is characterized by a heavy reliance on household debt, which imposes a severe psychological toll (Hiilamo, 2020; Xiao & Kim, 2021; Loibl et al., 2021). This robust evidence necessitates the explicit inclusion of debt servicing burdens and market sentiment within the Relative Prosperity Friction Index.

## 3. Conceptualization of the RPFI Formula

### 3.1 The conceptualization of the Relative Prosperity Friction Index

The conceptualization of the Relative Prosperity Friction Index represents a deliberate departure from traditional economic output metrics, focusing instead on the net experienced utility of the individual. To understand the philosophical underpinnings of this formula, it is necessary to borrow a concept from classical physics: friction. In physics, friction is the resistance that one surface or

object encounters when moving over another, resulting in the dissipation of energy that could otherwise be used for forward momentum. In the context of microeconomics and personal finance, economic friction represents the obligatory, non-negotiable financial and psychological costs that an individual must pay simply to maintain their current state of existence within the economic system. These frictions consume financial energy, preventing that energy from being converted into upward social mobility, discretionary enjoyment, or long-term wealth accumulation. Traditional economic indicators implicitly assume a frictionless environment where all income translates directly into utility. However, the lived reality of the modern citizen is highly frictional. Housing costs, mandatory debt repayments, the inflated costs of basic necessities, and the chronic stress of employment insecurity all act as powerful resistive forces. When an economy grows, but the frictions within that economy grow at a proportionally faster rate, the net forward momentum of the individual is zero or negative, leading to the pervasive modern sentiment of working harder merely to stay in place. The Relative Prosperity Friction Index is engineered specifically to isolate and quantify this dynamic, subtracting the frictional forces from the gross financial energy to reveal the true net prosperity. The formula for the Relative Prosperity Friction Index is mathematically expressed as follows:

$$RPF\text{I} = \frac{I_{disp} - (D_{serv} + C_{inf})}{S_{index}} \times 100$$

This equation calculates the ratio of truly frictionless, usable income against the psychological backdrop of systemic security. The numerator represents the absolute monetary value of liquid joy. The denominator acts as a psychological lens, acknowledging that a dollar in a secure, optimistic environment holds significantly more functional utility.

### 3.2 Variable Explanations and Definitions

- $I_{disp}$  (Disposable Income): Total household earnings from all sources after the deduction of direct taxes and mandatory social security contributions.
- $D_{serv}$  (Debt Servicing): The total monthly or annualized monetary cost required to maintain current debt obligations (interest and minimum principal).
- $C_{inf}$  (Core Inflation Gap): The absolute monetary increase in the cost of a baseline survival basket (Housing, Food, Energy) tailored to the specific geographic location and income decile.
- $S_{index}$  (Sentimental Index): A psychological multiplier ranging from 0.1 to 1.0, representing the perceived level of job security, local market stability, and generalized economic optimism.

### 3.3. Methodological Framework and Application

The application of the RPF Index requires a transition to high-frequency, localized microeconomic data. A resulting score above 80 represents the 'Thrive Zone,' where individuals possess high mobility and low stress. Scores between 40 and 70 denote the 'Treading Water Zone.' Scores below 30 indicate the 'Friction Zone,' warning of severe systemic failure.

### 3.4. Macroeconomic Policy Implications

Integrating the RPF Index into national economic governance would fundamentally alter the trajectory of macroeconomic policy. A primary policy implication would be a radical reevaluation of debt structures, shifting legislative focus toward student loan reform and the regulation of predatory lending. Furthermore, the focus on the Core Inflation Gap would alter how central banks approach monetary policy, necessitating targeted interventions in housing, agriculture, and energy.

### 3.5. Methodological Limitations and Future Research

The most significant limitation lies in the accurate quantification of the Sentimental Index. Developing a standardized, objective mechanism for measuring subjective security across diverse cultural contexts represents a formidable statistical challenge. Additionally, calculating the Core Inflation Gap requires access to highly granular, real-time consumption data.

## 4. Conclusion and Recommendations

### 4.1 Conclusion

The persistence of Gross Domestic Product as the sole arbiter of economic success represents a profound failure of modern macroeconomic theory. To address this inherent paradox, the Relative Prosperity Friction Index proposes a rigorous analytical framework that actively subtracts mandatory, systemic frictions from an individual's disposable income. By quantifying the true lived reality of a population, this novel metric demands a fundamental paradigm shift away from traditional macroeconomic policies that merely accelerate the velocity of money. Ultimately, it advocates for an economic philosophy that prioritizes reducing the everyday friction of life to foster genuine individual prosperity.

### 4.2 Recommendations

To practically address the widening chasm between systemic economic growth and subjective individual prosperity, it is highly recommended that the Relative Prosperity Friction Index be integrated directly into national economic governance. Policymakers should undertake a radical reevaluation of modern debt structures, shifting legislative focus specifically toward comprehensive student loan reform and the strict regulation of predatory lending. Furthermore, central banks are advised to alter their traditional approach to monetary policy by focusing on the Core Inflation Gap, which necessitates targeted interventions in essential sectors such as housing, agriculture, and energy. For the future implementation of this index, researchers must prioritize the development of a standardized, objective mechanism for accurately measuring the subjective Sentimental Index across diverse cultural contexts.

Finally, to ensure the metric functions effectively, statistical institutions must secure access to highly granular, real-time consumption data to properly calculate the localized core inflation gaps.

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