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The Limits of Rational Markets: Rebuilding the Balance of Profit, Policy, and Philanthropy

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Abstract. In the modern economic system, the profit-motive is seen as an important power that makes market efficiency and innovation. However, the boundedness and potential risk also trigger concern. The essay uses a method of literature review, complemented with economic theory and actual cases, discussing the function of profit-driven motive and their boundedness and analyzing the role of government and charity organizations in the modern economic system. The essay first illustrates the challenge of behavioral economics academia to the homo economicus assumption, and then uses cases such as the financial crisis and negative externality to indicate that a single profit-driven motive will cause systemic risk. Furthermore, the essay appreciates the positive function of the profit-motive in technological innovation, efficiency improvement, and creating shared value. The study also figures that relying on only the market or the government makes it difficult to examine the total development of society. The collaborative system among the market, the government, and the charity organization is more likely to strike a balance among efficiency, fairness, and social value. The article believes that through clarifying the divisions of different entities, a more stable and sustainable economic system can be built.

Keywords: profit-driven mechanism, market failure, collaborative economic system, creating shared value

1. Introduction

A balanced economic system requires the cooperation of government and charities, as charities provide temporary aid while the government ensures long-term economic stability. The author believes that the market mechanism and cooperation with the government and charities can best promote the development of human society based on the Human Development Index (HDI). Charities can focus on providing periodic and partial supplies, such as disaster relief and primary medical care. The government should focus on the design of policy under macro development, such as setting a minimum salary and making anti-trust policy. The key principle of the collaboration is to maintain a clear division of roles. The market mechanism takes responsibility for efficiency and innovation. Charities can best respond to responses to specific and urgent social issues. Governments focus on making relevant policies and providing a long-term supply to low-income people.

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Profit-driven behaviors are now often tagged as selfishness, and the profit-driven enterprises seem to violate social responsibility. However, people ignore that in modern society, profit should not be easily comprehended as some moral goal or some ethical behavior. It is a sign of the market. Profit is leading the capital to enter the market. Profit-driven behavior in the free market helps enterprises continue innovation, increase efficiency, focus on consumer demand, and take calculated risks. Profit-driven behavior is not guilty; it is a system that develops an incentive mechanism.

Drawing on insights from Behavioral Economics, this essay critiques the traditional Homo Economicus assumption, arguing that purely profit-driven behavior can generate systemic risks, as reflected in events such as the Global Financial Crisis and various negative externalities. At the same time, it recognizes that the profit motive can stimulate technological innovation, improve efficiency, and create shared value. The study further argues that neither the market nor the government alone can ensure balanced development. Instead, a collaborative framework involving the market, government, and charitable organizations is better positioned to balance efficiency, fairness, and social welfare, offering insights for more sustainable and inclusive institutional design.

2. The dark side of profit: market irrationality and systemic risks

Classical economics is a typical school that believes that market mechanisms and profit-driven behavior can lead to success. Classical economics assumes everyone is Homo Economicus, which is a perfectly rational agent who systematically maximizes utility. However, behavioral economics demonstrates critical deviations from this paradigm. First, loss aversion indicates people are more sensitive toward losing compared to gaining [1]. One example is Kahneman's experiment, when people face a decision between 100% gaining 500 and 50% of gaining 1000 or 50% of nothing, people tend to choose the first one. In contrast, when people face a decision between the second one and the last two options, people tend to choose the second option [2]. This experiment indicates that people will have different perspectives in different situations, even when the probability is the same. However, this conflicts with the assumption of classical economics. The experimental data also indicate that people will violate the "rational decision" due to emotional and psychological bias. It demonstrates that humans are not rational.

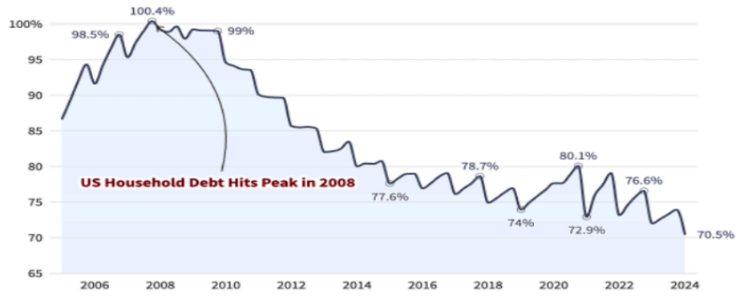

Figure 1. Ratio of US household debt to gross domestic product [3]

The Black-Scholes valuation model is a standard model for predicting option prices. Black-Scholes's rational valuation model is commonly used in the stock market as it is based on market efficiency and continuous trading. Although BSM (Black-Scholes-Merton Model) is only a micro-level construct, it indeed inherits the expectations of EMH (Efficient Market Hypothesis): rational prediction, information availability, continuous trading, and instant price change. According to McKinsey, from 2000 until 2007, US household debt increased significantly. The graph of US

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Household debt indicates a right-skewed tendency through 2006-2024, reaching its maximum in 2008 at 100.4%. Then gradually decrease to 70.5% in 2024. The graph clearly indicates that household debt continued to rise systematically for several years before the 2008 financial crisis. It reveals the increasing risk in the market. However, from the perspective of the Black-Scholes model, the trend illustrates the failure of the rational model to capture human behavior. First, the model quantizes risk through volatility and probability distribution, and assumes every participant in the market has the same and rational risk cognition. In the Black-Scholes framework, rising leverage should be directly reflected through higher volatility(σ). It increases the time value of the share, indicating a higher risk. However, before the 2008 financial crisis, even family debts increased dramatically, but the volatility of certain factors, like VIX, is still at an extremely low level. Therefore, when the risk is increasing, people should decrease their debt. In fact, before the 2008 financial crisis, most families and financial organizations still increased leverage, which differs from the "rational" behavior assumed in the model. Hence, it failed to predict systematic risk during the 2008 financial crisis. It reveals that the math models based on Homo Economicus cannot capture herd-driven and blind escalation of borrowing behavior, which finally destabilized the market.

Furthermore, although Black-Scholes predicts that all useful information will be reflected by the market and finally shown in the price [4], the secular rise of household debt and the GAP ratio is an obvious risk signal. If market participants are rational, those massive, unsustainable enlargements of debt should not happen. Overall, instead of the rare external shocks the model predicted, the crisis was due to the long-term accumulated internal imbalance within the market. When infinite individuals make "rational" decisions when pursuing short-term profit, it becomes a non-rational conformity behavior to be seen as an entity that results in systematic failure out of control and triggers a crisis. This fact proves that a math model based on market efficiency and Homo Economicus cannot sufficiently explain or predict the blindness and belongingness of human behavior.

Moreover, profit-driven behaviors often result in negative externalities, including environmental pollution, modern slavery, and tax evasion. For instance, Turkish clothing production industries have been accused of paying poverty pay to workers [5]. Further, profit-driven companies might suffer from short-termism, sacrificing long-term investment. A well-known case is Boeing's 737 Max crisis, where cost-cutting and rushed timelines were prioritized over long-term safety, resulting in fatal crashes [6]. Third, the pursuit of profit might generate an immoral marketing strategy to increase sales. Purdue Pharma, for example, aggressively marketed OxyContin while concealing its addictive nature, fueling the U.S. opioid epidemic [7]. OxyContin reveals a key structural conclusion: in a market mechanism that maximizes profit, enterprises lack incentive to disclose negative information, even systematically externalize public health risk to extend consumer dependence and maintain revenue growth. The market cannot fix this behavior spontaneously because the cost of the risk is borne by society. But the profit is concentrated in the enterprise. If the profit-driven behaviors deviate from the boundaries of legality and morality, such enterprises will become risk makers without social trust. Therefore, the author believes that market mechanisms need to cooperate with the government and charities in order to maximize development.

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3. Rethinking of the mechanism–public morality

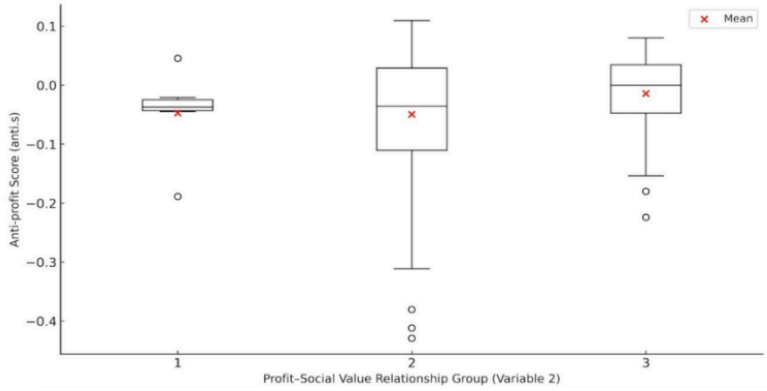

Figure 2. ANOVA of anti-profit score across profit-social value groups

To examine the key concept that the earlier paragraphs put forward, the test transforms theoretical analysis into data analysis in order to compare the differences in attitude among different cognitive groups. To investigate disparities in anti-profit attitude among participants with different opinions of the profit-social value relationship, a one-way analysis of variance (ANOVA) was conducted using anti.s as the dependent variable and Variable 2 (subjective opinion of profit-social value relationship of participants) as the independent factor (Figure 2). The analysis displays that three groups of samples exist with obvious differences, $F(2,166)=3.11$, $p=0.047$, $\eta^2=0.036$. The mean anti-profit score (anti.s) of Group 1 (n=6, profit and social value conflicted or unrelated) is -0.0472. For Group 2 (n=87, neutralizing attitude), the mean anti.s is -0.0494. For Group 3 (n=76, profit and social value are positively correlated), the mean anti.s is -0.0142. As participants tend to believe profit represents social value, anti-s is skewed to zero, showing more pro-profit orientation. The effect size $\eta^2=0.036$ represents 3.6% of the variance in the anti-profit sector explained by perceptual grouping. Theoretically, the statistical result supports the key hypothesis of the essay: the social legislation of profit depends on public opinion of social value while earning profit. When individuals believe profit and social value are positively correlated, they prefer to believe profit-driven as "social contribution", in order to reduce anti-profit mood. In contrast, when profit is seen as exploitation, anti-profit emotion increases significantly. The relationship demonstrates that the public opinion in profit is not dependent on quantity or scale; instead, the moral evaluation mechanism is the profit deserved and valuable. The result reveals an important mental rule: the public will mix morality and economics while judging economics. Even profit is defined as an index of efficiency and innovation. But the public is more likely to judge its legitimacy based on social value. In other words, profit can be accepted by the public, depending on how many social value enterprises have contributed.

Of course, in a situation without efficient regulation and moral constraint, profit-driven behavior might result in some negative behavior to society. However, this consequence is not owing to the desire for profit, but the failure in the design of the mechanism. Those negative externalities could be rectified with effective regulation and market mechanisms to ensure they are on the "right track" while gaining profit. For example, ESG assessment requires an enterprise to focus on environmental and social guidelines while operating. Furthermore, nowadays, as long-term investors and public are more in charge of enterprises, the moral hazard issue is decreasing. As Milton Friedman noted, "The social responsibility of business is to increase its profits"—but only within "the rules of the game," meaning fair competition and law-abiding behavior [8].

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4. The bright side of profit: innovation, efficiency, and shared value

However, profit-driven behavior promotes innovation. Schumpeter proposes a theory of creative deconstruction that the enterprise continues to develop technology and make new products, which creates a positive externality toward society [9]. According to the OECD, private enterprises undertake more than 70% of research expenditure [10]. For example, during the COVID-19 pandemic, Pfizer started its mRNA vaccination research immediately without government funding and supplied these products to the entire world [11]. In contrast, the Institut Pasteur, the national vaccine research institution of France, due to its bureaucratism, has not produced any available vaccination today [12]. Different results between the two behaviors are due to the differences in mechanisms. Risk-taking and progress requirements under profit-driven behavior transfer innovation to visible profit.

Moreover, profit-driven enterprise continues improving efficiency, maximizing profit while producing positive externalities to society. Unlike government and charities, private companies need to avoid high variable costs while producing products by improving efficiency. Enterprises are asked to be value producers, not only profit extractors [13]. For example, UPS spent more than 10 years designing the AI-optimized path system-ORION. Through analyzing the most appropriate path for delivery, it significantly reduces fuel usage and time cost. According to the approximation from UPS, this system can reduce more than 10 million gallons of fuel, save about $300 million in delivery costs annually, and decrease more than 100 thousand metric tons of carbon emissions [14]. The production of the system not only reduces the ESG index but also maximizes profit by lowering variable costs while achieving social responsibility and carbon neutrality. Profit-driven enterprises can create economic value while achieving a social goal, a concept known as "creating shared value" [15]. So, the market forces profit-driven enterprises to do "the right things", even if their goal is to "earn money".

Third, profit-driven companies highly focus on the demand from consumers. In a non-monopoly market, if the company chooses to ignore consumers' preferences, it will receive a reaction from the market by sales volume, reputation, and valuation. Consumer-based is an obvious characteristic that di ffers from government and charities. Therefore, a profit-driven company has a mechanism for being "consumer-centered", which forces the enterprise to focus on the consumers' feedback. In the electric vehicle industry, Tesla, through OTA, avoids a physical recall of 360 thousands of vehicles. This helps Tesla gain a higher satisfaction rate and adherence of users and become an outstanding producer in the world [16].

Finally, profit-driven companies are willing to take risks. This is obvious in the aerospace industry. A typical example is NASA, which spent more than $209 billion on the Space Shuttle program, with an average cost of 1.6 billion for each launch [17]. In contrast, Elon Musk's SpaceX has completed multiple launches since its establishment. After the rocket can be reused, the average cost of each launch is only $62 million, much lower than NASA. The advantages of the cost are based on hundreds of failure tests and multiple launch accidents. This can only be done in profit-driven companies because, unlike government organizations that face budget review and low tolerance of failure, a profit-driven mechanism allows risks to be capitalized and valued. According to CNBS, SpaceX raised 750 million dollars from a new round of funding [18], illustrating that only profit-driven incentives are willing to suffer such risks that they might lose all investment. Enterprises are willing to keep investing because they believe it will bring huge long-term profits. Therefore, risk-taking is not only "courage", but a difference in the incentive mechanisms. The government can always invest in basic science, but transferring the results to be industrialized is usually accomplished by profit-driven companies.

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5. Beyond markets: the role of government and charities

Because profit-driven enterprises cannot satisfy all social needs, especially in low financial return areas, therefore, it is necessary to examine the role of government-owned and charity-owned enterprises. Government-owned and charity-owned companies focus more on social welfare distribution. Since they are not forced to gain profit by stakeholders, they can place more resources on areas that have few market rewards but high public value. A public hospital is a good example. Public hospitals always welcome everyone and guarantee basic medical rights. According to OECD, most European countries publicly support a universal health-care system, and a government-supported medical insurance system covers 95% of the population [19]. However, in the US, which is a market mechanism-dominant system, there are more than 8% of the population who delay or fail to treat due to a lack of insurance [20]. It indicates that government mechanisms can provide fairness in basic areas, such as medicine and education, because private capital allocates resources based on profitability, leaving the low-income group underserved. To sum up, enterprises owned by the government have irreplaceable advantages in protecting basic security.

Furthermore, government-owned enterprises are the main suppliers of public goods and long-term strategic infrastructure, which have characteristics of a long return cycle and high uncertainty. These conditions make those projects unsuitable for profit-driven enterprises because they cannot satisfy investors' requirements of short-term, predictable profitability. However, those projects support the fundamental development of the social economy. The most typical case is the internet. The fundamental structure of ARPANET, the internet, was invested in by the US government for a huge amount of capital. It doesn't bring any profit for more than 10 years [21], but it builds the basic system of the global Internet. Peter Temin pointed out that government-owned companies that lead basic investment have the structural feature of high risk in the early phase and share the return in the later phase, which is a function that the market cannot substitute [22]. The type of risk is different from the commercial risk that profit-driven companies accept. Profit-driven companies only take risks when failure is acceptable and future profit can be greater than the early-phase investment. But government-led investment takes risks that are uncertain and diffuse. Similarly, in areas such as infrastructure, vaccination, and clean water, government-owned companies are responsible for undertaking investment and maintenance responsibilities. The market might be more efficient in those areas, but not willing to take the possible risk of a deficit. Instead, although the government has complicated administrative procedures, it will take responsibility to guarantee the supply.

Enterprises owned by charities can help achieve social goals for disadvantaged groups. Compared to administrative organizations, charities can release the pressure on social resources, which is significant, especially for third-world countries. For example, the UNICEF vaccination program works with the government, helps provide vaccination for more than 2 million zero-dose children in 18 states of Nigeria [23]. Another example is Grameen Bank, a social business, provides financial aid for Bangladeshi women to start a business through a clean loan [24]. They can provide aid in short-term programs such as disaster relief and public health. However, their financial sources are unstable. Most of the money from charities comes from donations, making it hard to keep expanding. Therefore, charities are more suitable for short-term aid rather than systematic aid.

6. Build balance: cooperative economic system

Therefore, the best mechanism is not a simple choice between market, government, and charities, but a collaborative system. Profit-driven enterprises should be responsible for fostering innovation and enhancing efficiency, while the charity-owned enterprises provide short-term intervention and

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social patches, and the government-owned enterprises help fix market defects and provide long-term sustainability. For example, profit-driven companies focus on technology and manufacturing industries, providing vitality; government-owned enterprises focus on well-being and livelihood areas such as education and medical care. Different industrial policies could be implemented to improve the incentive mechanism, to encourage competition, and to restrict corruption.

Whether the behaviors of profit-driven enterprises, government-owned enterprises, or charity-owned enterprises are better cannot be determined with a simple judgment. As this essay discussed, profit-driven is an indispensable internal driving force of modern economic growth. But when breaking moral rules, its negative effects should not be overlooked. In contrast, although the government can provide a long-term supply of public goods, its ownership of enterprises will lack efficiency and innovation. Charities can provide significant and urgent aid while struggling with unsustainability. Those three types of ownership should be seen as a complementary system rather than an opposite. The existence of regulation is not for denying the benefits of profit-motiveness, but to build a structure with norms, collaborations, and ethics. In conclusion, the advantages and disadvantages of a system are not mutually exclusive but are based on the relevant situations and mechanisms. As Salamon notes, effective social development often requires cooperation by government, profit-driven firms, and nonprofit organizations, since no single sector can accomplish the social need alone [25]. The best approach is collaboration between different sectors, ensuring both short-term support and long-term sustainability. The ideal system should be founded on the balance of fairness, efficiency, and innovation.

7. Conclusion

This study aimed to investigate the limits of rational markets and analyze the collaborative ability of profit-driven enterprises, government, and charity organizations; the findings indicate that profit-driven enterprises play a significant role in technological innovation, increasing efficiency, and promoting economic growth. However, the analysis revealed that in a situation devoid of institutional constraint and ethical norm, profit-driven enterprises result in systematic risk and negative externality, which supports the initial hypothesis that relying on only market hypothesis cannot explain economic behavior, and is hard to maintain the sustainable development of society.

Theoretically, the article integrates relevant opinion from classical economics, behavioral economics, and institutional economics, further discussing the relationship between market mechanism and relationship with public department, emphasizing that profit, public policy, and philanthropic action should be seen as complementary institutional arrangements, rather than opposite choices.

In practical terms, the study indicates that building an economic system with efficiency, fairness, and innovation needs reasonable policy design and institutional coordination, implementing effective collaboration between the market, the government, and social organizations. However, the study is mainly based on literature review and second-hand data analysis. The study is limited by research scope, and data resources still have certain limitations, which might influence the generalizability of the findings.

Overall, this study provides new insights into collaboration between different sectors, and highlights the importance of creating social value and sustainable development while pursuing economic efficiency.

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