

STRENGTHENING THE PHILIPPINE EDUCATION SECTOR THROUGH FISCAL AND MONETARY POLICIES: ANALYZING GOVERNMENT INTERVENTIONS FOR RESILIENCE AND GROWTH

Hazel S. Osano¹
Christopher M. Villaronte²
Anik Yuesti³
Joel Arante Alve⁴

^{1,2,4}Doctor of Philosophy in Business Management,
University of Negros Occidental – Recoletos, Philippines
³Universitas Mahasaraswati Denpasar

¹hazel.osano@student.uno-r.edu.ph
²christophervillaronte@gmail.com
³anikyuesti@unmas.ac.id

Abstract

Amid ongoing economic challenges, this paper analyzes how fiscal and monetary policies have influenced the resilience and growth of the Philippine education sector. Using a qualitative-descriptive approach based on secondary data, the study highlights that increased government spending was instrumental in sustaining learning continuity, enhancing digital infrastructure, and supporting post-pandemic recovery. These findings align with the Keynesian Intertemporal Synthesis (KIS-CES) model, which emphasizes the multiplier effects of public investment, especially in education. The role of monetary policy, while indirect, also proved essential; accommodative measures by the Bangko Sentral ng Pilipinas helped create a stable macroeconomic environment that supported education financing. However, inflation and reduced household purchasing power continue to affect access and equity. The study further confirms Human Capital Theory and modern Endogenous Growth Theory, which underscore education as a catalyst for long-term economic development. Overall, results affirm the need for sustained, inclusive, and coordinated policy actions to ensure a resilient and future-ready education system.

Keywords: Economic Growth, Education Sector, Fiscal Policy, Monetary Policy, Resilience

Abbreviations: Bangko Sentral ng Pilipinas (BSP), Asian Development Bank (ADB), Department of Budget and Management (DBM), International Monetary Fund (IMF), Keynesian Intertemporal Synthesis with Constant Elasticity of Substitution (KIS-CES), Organisation for Economic Co-operation and Development (OECD), Philippine Institute for Development Studies (PIDS), United Nations Educational, Scientific and Cultural Organization (UNESCO)

I. INTRODUCTION

Education plays a central role in a nation's long-term economic development, serving as both a driver and a beneficiary of sound economic policies. Globally, governments have increasingly relied on fiscal and monetary policy tools not only to stabilize economies but also to enhance public service delivery, including education. According to the World Bank (Education Finance Watch, 2024) increased government spending on education—particularly during economic downturns—has proven effective in safeguarding learning continuity and mitigating inequalities. In parallel, monetary policy interventions that stabilize inflation and interest rates have indirectly supported the sustainability of education programs, especially in low- and middle-income countries (OECD, 2023b). These macroeconomic instruments have become even more critical in times of global crises, such as the COVID-19 pandemic, which placed immense pressure on public budgets and disrupted education systems worldwide.

In the Philippines, the education sector is significantly influenced by both fiscal allocations and monetary policy directions. The Department of Education (DepEd) continues to rely on annual government budgets, with public spending on education accounting for a sizable portion of the national budget. According to the Department of Budget and Management (DBM), the education sector received PHP 895.2 billion in 2023, the highest among all sectors. These investments are complemented by broader fiscal and monetary strategies aimed at fostering macroeconomic stability and ensuring inclusive development. For instance, during the pandemic, the Philippine government adopted expansionary fiscal measures, such as cash aid programs and increased education funding, to protect vulnerable learners and sustain institutional operations (Ordinario, 2021).

Despite these efforts, the Philippine education sector faces persistent challenges including learning poverty, infrastructure deficits, and unequal access—problems exacerbated by economic constraints. Monetary policy, often administered through inflation targeting and liquidity control by the Bangko Sentral ng Pilipinas (BSP), also plays an indirect but substantial role. High inflation rates can erode household purchasing power, affecting students' access to basic education needs. Likewise, interest rate adjustments can influence borrowing costs for educational institutions and development projects.

This study seeks to examine how fiscal and monetary policy interventions have contributed to the resilience and growth of the Philippine education sector. It aims to assess the effectiveness of government actions in shielding education from economic disruptions and supporting its long-term development. By analyzing both direct fiscal allocations and the broader macroeconomic environment shaped by monetary policy, this paper offers a comprehensive view of policy impacts and identifies areas for strategic improvement.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Over the past two decades, governments around the world have recognized the importance of aligning fiscal and monetary policies with education development goals. International evidence suggests that public education systems are significantly affected by the stability of macroeconomic environments and the prioritization of education in national budgets. According to the OECD (2023), sustained public investment in education contributes to equitable learning outcomes and long-term economic growth. During the COVID-19 pandemic, countries with resilient fiscal frameworks were able to implement emergency education programs more effectively. The World Bank (2024) emphasizes that while education financing has increased globally, particularly in high-income countries, low- and middle-income nations continue to face budgetary pressures, limiting their ability to maintain learning continuity and address pre-existing gaps.

Monetary policies have also played a subtle but significant role in education by influencing inflation, interest rates, and investment trends. An environment of stable inflation and low interest rates, often supported by central bank interventions, has been linked to improved education access, as borrowing costs for infrastructure and education financing are reduced (UNESCO Education Finance Watch, 2024). Furthermore, the International Monetary Fund (IMF, 2024) noted that coordinated fiscal and monetary policies during economic downturns helped protect education budgets in many countries. These measures often included stimulus packages, social protection programs, and concessional financing for education sector support, which collectively contributed to minimizing learning losses.

In the Philippine context, fiscal and monetary policy responses have been pivotal in shaping education outcomes, particularly during the COVID-19 crisis. The

Asian Development Bank (Ordinario, 2021) estimated that school closures in the Philippines could result in up to PHP 11 trillion in long-term economic losses if not mitigated through targeted government interventions. In response, the national government adopted an expansionary fiscal approach, allocating PHP 895.2 billion to the education sector in 2023, the highest among all sectors (Department of Budget and Management [DBM] Budget-at-a-Glance-Enacted, 2023). These funds were channeled into remote learning programs, digital infrastructure, and remedial support to ensure learning continuity.

Monetary policy, administered by the Bangko Sentral ng Pilipinas (BSP), also played an indirect role by maintaining accommodative interest rates and injecting liquidity into the economy. This enabled government borrowing at lower costs and stimulated economic activity that indirectly supported educational services. However, rising inflation and global financial volatility posed challenges. As reported by PIDS (Angelo, 2024), the impact of inflation on household income further strained education access, particularly among low-income families. Moreover, the combined fiscal and monetary efforts, while necessary, have raised concerns about long-term debt sustainability and the efficiency of spending in terms of learning outcomes (Education Finance Watch, 2024; World Bank, 2024).

To better understand these dynamics, recent theoretical developments offer deeper insights into the relationship between macroeconomic policy and education sector performance. One such framework is the Keynesian Intertemporal Synthesis with CES Production (KIS-CES) model, which expands traditional Keynesian thought by emphasizing dynamic fiscal multipliers and household heterogeneity. According to a research by Salguero (2025), this model demonstrates that public investment in sectors like education yields structurally higher economic multipliers, particularly during economic downturns. These findings validate the Philippine government's pandemic-era fiscal interventions aimed at education as not just short-term responses, but strategies that generate long-run economic value.

Additionally, modern variants of Endogenous Growth Theory have reaffirmed the centrality of human capital in national development. These models argue that government spending on education and innovation drives sustained increases in productivity and per capita income, especially in developing economies (2024 Education Finance Watch | Global Education Monitoring Report, 2024; de La

Maisonneuve et al., 2024). Education, therefore, becomes both a social good and an economic engine, with fiscal and monetary policies acting as catalysts for growth.

Complementing this, a 2023 OECD analysis directly links educational policy improvements—such as increased spending and expanded access—with measurable gains in long-run national productivity. The report concluded that better-targeted education funding, particularly in early childhood and basic education, can yield significant macroeconomic returns in terms of output and resilience (OECD, 2023). These theoretical insights reinforce the view that education-focused fiscal and monetary interventions are not just socially necessary but economically strategic.

Together, these contemporary theories—rooted in both macroeconomic optimization and human capital development—provide a comprehensive lens for analyzing the role of fiscal and monetary policy in strengthening the Philippine education sector. They support this study’s focus on how government interventions contribute not only to short-term sectoral resilience but also to long-term educational and economic growth.

III. RESEARCH METHODOLOGY

To analyze the relationship between fiscal and monetary policies and the performance of the Philippine education sector, a qualitative-descriptive approach was employed, relying exclusively on secondary data sources. The research design is non-experimental and interpretive, allowing for an in-depth exploration of government interventions without manipulating variables or conducting fieldwork. The focus is on extracting insights from existing literature, official reports, and relevant statistical data. Data was gathered from peer-reviewed journal articles, policy briefs, government documents, and institutional publications. Key sources included reports from the Asian Development Bank (ADB), World Bank, International Monetary Fund (IMF), Organization for Economic Cooperation and Development (OECD), Philippine Institute for Development Studies (PIDS), and the Department of Budget and Management (DBM). These documents were selected for their relevance, credibility, and recency, with particular emphasis on post-pandemic fiscal and monetary policy responses affecting the education sector.

Thematic analysis was applied to synthesize information across multiple data sets, focusing on patterns related to budget allocations, macroeconomic indicators

(such as inflation, GDP growth, and interest rates), and educational outcomes (such as access, resilience strategies, and sectoral growth). Triangulation of findings from different institutional sources enhanced the validity of interpretations, while theory-based analysis, grounded in Keynesian and human capital frameworks, provided a conceptual lens for organizing insights.

Limitations of the methodology include reliance on publicly available data, which may not fully capture real-time government decisions or implementation gaps. Nevertheless, the use of comprehensive and authoritative secondary sources ensures a robust basis for evaluating how fiscal and monetary interventions have shaped the resilience and growth trajectory of the Philippine education sector.

IV. RESULTS AND DISCUSSION

Government interventions in the form of fiscal and monetary policies have played a central role in shaping the resilience and recovery of the Philippine education sector, especially in the aftermath of the COVID-19 pandemic. The results of this analysis confirm existing literature that highlights the importance of education-oriented public spending and macroeconomic stability as key drivers of sectoral performance (OECD, 2023; World Bank, 2023).

4.1. Fiscal Policy Interventions and Education Resilience

Evidence from the Department of Budget and Management (Department of Budget and Management [DBM] Budget-at-a-Glance-Enacted, 2023) shows that the education sector received the largest allocation in the 2023 national budget, amounting to PHP 895.2 billion. This increase aligns with the recommendations in global literature that emphasize the need for higher education investments during economic downturns (Ordinario, 2021; World Bank, 2024). The funds were directed toward strengthening learning continuity, enhancing digital infrastructure, and supporting the safe reopening of school – measures consistent with the expansionary fiscal strategies suggested by Keynesian economics.

In addition, the Asian Development Bank (Ordinario, 2021) projected long-term economic losses of up to PHP 11 trillion due to pandemic-related school closures, reinforcing the urgency of government interventions. The Philippines responded with education-specific cash assistance programs, remote learning subsidies, and hiring

additional teachers—actions that confirm the role of fiscal policy in absorbing economic shocks and preserving educational services. These developments align with findings from international studies that underscore the critical role of public spending in preventing irreversible learning losses and supporting equitable access (UNESCO Education Finance Watch, 2024; OECD, 2023a).

4.2. Monetary Policy and Indirect Sectoral Support

Although monetary policy does not directly fund education, its role in creating macroeconomic conditions that facilitate effective fiscal action cannot be overlooked. The Bangko Sentral ng Pilipinas (BSP) adopted accommodative monetary measures during the pandemic, including lowering policy interest rates and implementing liquidity-enhancing operations. These efforts helped reduce borrowing costs for the government and education-related institutions, indirectly supporting continued investment in education. Such interventions reflect the monetarist perspective that emphasizes the stabilization role of central banks in times of economic uncertainty (IMF, 2024).

However, recent challenges related to inflation have affected household incomes and education affordability, particularly for low-income families. Reports from the Philippine Institute for Development Studies (Angelo, 2024) indicate that inflationary pressures have reduced real household purchasing power, potentially limiting access to school supplies, transportation, and meals. This confirms the indirect but substantial influence of monetary conditions on education equity, as noted in prior studies (World Bank, 2024).

4.3. Policy Impact and Alignment with Theoretical Frameworks

The combined effect of fiscal and monetary interventions aligns with both the Keynesian Intertemporal Synthesis (KIS-CES) model and Human Capital Theory. Salguero (2025) assert that government investments in sectors such as education produce higher fiscal multipliers and contribute to long-term productivity. The Philippine government's strategic education spending during and after the pandemic exemplifies this principle. Moreover, the prioritization of education as a form of human capital investment confirms Becker's (1964) theory that education contributes significantly to national economic growth.

Contemporary OECD research (2023) further validates the link between education spending and aggregate productivity, showing that countries that invest more equitably in education systems tend to experience stronger and more resilient economic performance. The Philippine case reflects this trend, demonstrating how timely fiscal and monetary responses can help mitigate education disruption and stimulate sectoral recovery.

V. CONCLUSIONS AND RECOMMENDATIONS

The findings of this research affirm that fiscal and monetary policies have played a significant role in shaping the resilience and growth of the Philippine education sector, particularly during and after the COVID-19 pandemic. Strategic fiscal interventions were instrumental in preserving learning continuity, improving digital infrastructure, and supporting the return to in-person education. These policy decisions reflect the Keynesian view that government spending is essential in mitigating economic downturns and sustaining essential public services. The relevance of the Keynesian Intertemporal Synthesis (KIS-CES) model is evident, as it highlights how public investments in sectors like education generate high fiscal multipliers, particularly in times of crisis.

Monetary policy, although not directly tied to education financing, contributed to a stable macroeconomic environment that facilitated fiscal responsiveness. The Bangko Sentral ng Pilipinas implemented interest rate reductions and liquidity-boosting measures that enabled more affordable government borrowing and supported ongoing education investments. However, challenges remain, particularly with rising inflation, reducing household purchasing power and limiting education access for low-income families. This underscores the importance of designing monetary and fiscal policies that are not only growth-oriented but also inclusive and responsive to socioeconomic disparities.

The study's findings are strongly supported by contemporary theoretical perspectives, including Human Capital Theory and modern extensions of Endogenous Growth Theory. These frameworks emphasize that investment in education is a strategic tool for long-term economic development and productivity. Government interventions that enhance access, quality, and equity in education are

therefore not merely short-term recovery strategies, but foundational to national competitiveness and resilience.

In light of these conclusions, several policy directions are recommended. First, the government must sustain and prioritize education in its national budget planning to ensure continued improvements in access and quality, especially in marginalized communities. Second, fiscal policy should incorporate inflation-responsive social protection programs that provide direct support to families struggling with the cost of education. Third, public financial management systems must be strengthened to guarantee that education funds are used effectively and translated into measurable learning outcomes. Fourth, continued coordination between fiscal and monetary authorities is essential, particularly in maintaining favorable borrowing conditions that support education infrastructure and public-private partnerships. Lastly, institutionalizing crisis-responsive education strategies—including flexible learning systems and digital platforms—will better prepare the sector for future disruptions, ensuring continuity and adaptability in the face of adversity.

REFERENCES

- Education Finance Watch | Global Education Monitoring Report.* (2024).
<https://www.unesco.org/gem-report/en/publication/2024-education-finance-watch>
- Angelo, F. A. (2024, March 1). *Philippine Institute for Development Studies (PIDS)*. Philippine Institute for Development Studies (PIDS) PHL Underspending on Education – Study. <http://www.pids.gov.ph/details/news/in-the-news/phl-underspending-on-education-study>
- de La Maisonnette, C., Égert, B., & Turner, D. (2024, February 6). *Quantifying the link between educational policies and macroeconomic productivity*. ECOSCOPE. <https://oecdecoscope.blog/2024/02/06/quantifying-the-link-between-educational-policies-and-macroeconomic-productivity/>
- Department of Budget and Management [DBM] 2023 Enacted National Budget.* (2023). https://www.dbm.gov.ph/wp-content/uploads/Our%20Budget/2023/2023-Budget-at-a-Glance-Enacted.pdf?utm_source=chatgpt.com
- Education Finance Watch 2024.* (2024). World Bank. <https://www.worldbank.org/en/topic/education/publication/education-finance-watch>
- IMF.* (2024, December). IMF Executive Board Concludes 2024 Article IV Consultation with the Philippines. <https://www.imf.org/en/News/Articles/2024/12/17/pr-24478-philippines-imf-concludes-2024-article-iv-consultation>
- OECD. (2023a). *Education at a Glance 2023: OECD Indicators*. OECD. <https://doi.org/10.1787/e13bef63-en>
- OECD. (2023b). *Education Policy Outlook 2023: Empowering All Learners to Go Green*. OECD. <https://doi.org/10.1787/f5063653-en>
- Ordinario, C. U. (2021, April 30). ADB bares students' losses with closure of PHL schools | Cai U. Ordinario. *BusinessMirror*. <https://businessmirror.com.ph/2021/04/30/adb-bares-students-losses-with-closure-of-phl-schools/>
- Salguero, R. A. F. (2025). *A Keynesian Intertemporal Synthesis (KIS) Model: Towards a unified and empirically grounded framework for fiscal policy* (No. arXiv:2508.00224). arXiv. <https://doi.org/10.48550/arXiv.2508.00224>
- World Bank.* (2024). World Bank Open Data. <https://data.worldbank.org>
- Wursten, H. (2020). *The 7 Mental Images of National Culture: Leading and Managing in a Globalized World*. Institute for Training in Intercultural Management.