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THE INFLUENCE OF PUBLIC DEBT ON ECONOMIC GROWTH: A REVIEW OF LITERATURE

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ABSTRACT

Purpose: This paper conducts a thorough examination of the theoretical and empirical literature on the influence of public debt on economic growth in both developed and developing economies. The drive of this research is to determine whether there is mutual agreement on the effects of public debt on economic growth in global economies.

Design/methodology/approach: A literature review approach is adopted, and the current implications and future directions are explored based on theoretical and empirical analyses.

Findings: The investigation uncovers a range of contradictory information on the relative influence of public debt on economic growth. Although most of the literature reviewed supports the negative impact of public debt on economic growth, several other studies have found a long-run affirmative influence of public debt on economic growth via the fiscal multiplier effect. The article also uncovered that a few more research back up the Ricardian Equivalence Hypothesis (REH), which claims that there is no relationship between public debt and economic growth. Overall, it indicates that theoretical models and empirical studies produce indecisive outcomes based on a variety of criteria such as the level of development of the sampled nations, the methodology utilized, data coverage, and the researchers' choice of control variables, among others.

Practical implications: The outcomes may assist policymakers and governments in designing fiscal policies by analysing how existing debts affect the level of growth.

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A INFLUÊNCIA DA DÍVIDA PÚBLICA NO CRESCIMENTO ECONÔMICO: UMA REVISÃO DA LITERATURA

RESUMO

Objetivo: Este trabalho conduz um exame minucioso da literatura teórica e empírica sobre a influência da dívida pública no crescimento econômico, tanto nas economias desenvolvidas quanto nas economias em desenvolvimento. O objetivo desta pesquisa é determinar se existe acordo mútuo sobre os efeitos da dívida pública sobre o crescimento econômico nas economias globais.

Desenho/método/abordagem: Uma abordagem de revisão de literatura é adotada, e as implicações atuais e direções futuras são exploradas com base em análises teóricas e empíricas.

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Conclusões: A investigação revela uma série de informações contraditórias sobre a influência relativa da dívida pública no crescimento econômico. Embora a maioria da literatura revisada apóie o impacto negativo da dívida pública no crescimento econômico, vários outros estudos encontraram uma influência afirmativa a longo prazo da dívida pública no crescimento econômico através do efeito multiplicador fiscal. O artigo também descobriu que mais algumas pesquisas respaldam a Hipótese de Equivalência Ricardiana (REH), que afirma que não há relação entre a dívida pública e o crescimento econômico. Em geral, indica que modelos teóricos e estudos empíricos produzem resultados indecisos baseados em uma variedade de critérios, como o nível de desenvolvimento das nações amostradas, a metodologia utilizada, a cobertura de dados e a escolha das variáveis de controle por parte dos pesquisadores, entre outros.
Implicações práticas: Os resultados podem ajudar os formuladores de políticas e governos na elaboração de políticas fiscais, analisando como as dívidas existentes afetam o nível de crescimento.

Palavras-chave: Crescimento Econômico, Países em Desenvolvimento, REH, SDGs.

LA INFLUENCIA DE LA DEUDA PÚBLICA EN EL CRECIMIENTO ECONÓMICO: UNA REVISIÓN DE LA LITERATURA

RESUMEN
Propósito: Este documento realiza un examen exhaustivo de la literatura teórica y empírica sobre la influencia de la deuda pública en el crecimiento económico, tanto en las economías desarrolladas como en las economías en desarrollo. El objetivo de esta investigación es determinar si existe un acuerdo mutuo sobre los efectos de la deuda pública en el crecimiento económico de las economías mundiales.
Diseño/metodología/enfoque: Se adopta un enfoque de revisión bibliográfica y se exploran las implicaciones actuales y las orientaciones futuras a partir de análisis teóricos y empíricos.
Resultados: La investigación descubre una serie de informaciones contradictorias sobre la influencia relativa de la deuda pública en el crecimiento económico. Aunque la mayor parte de la literatura revisada apoya el impacto negativo de la deuda pública sobre el crecimiento económico, varios otros estudios han encontrado una influencia afirmativa a largo plazo de la deuda pública sobre el crecimiento económico a través del efecto multiplicador fiscal. El artículo también descubrió que algunas investigaciones más respaldan la Hipótesis de Equivalencia Ricardiana (HER), que afirma que no existe relación entre la deuda pública y el crecimiento económico. En general, indica que los modelos teóricos y los estudios empíricos arrojan resultados indecisos en función de diversos criterios, como el nivel de desarrollo de las naciones de la muestra, la metodología utilizada, la cobertura de los datos y la elección de variables de control por parte de los investigadores, entre otros.
Implicaciones prácticas: Los resultados pueden ayudar a los responsables políticos y a los gobiernos a diseñar políticas fiscales analizando cómo afecta la deuda existente al nivel de crecimiento.

Palabras clave: Crecimiento Económico, Países en Desarrollo, REH, ODS.

INTRODUCTION

The effect of government interventions on economic growth through taxes, public debt and spending continues to be a central subject of economic policy in the global economy (Alzghoul et al., 2023; Al-kasasbeh et al., 2022). Although the causes and influences of foreign public debt have been extensively discussed in the past, the recent emergence of financial crises in both developed and emerging economies, as well as the wide variation in economic growth rates across world economies, have sparked renewed interest among development economists in the impact of public debt on economic growth.

"Growth in a Time of Debt" (2010), authored by Carmen Reinhart and Kenneth Rogoff, was one of the seminal studies on the subject that sparked the emergence of new literature. It

was widely cited and influential among academics, commentators and policymakers in the debate over austerity and fiscal policy in debt-burdened economies. Consequently, the debt crisis has progressed uniformly throughout international economies over time. Consequently, there is currently little agreement on this issue. The disagreement between theoretical and empirical results about the debt-growth relationship has also contributed to the disparities in policy approaches among the investigated nations.

Public debt typically refers to the government's obligations and consists mostly of debt instruments and loans. According to the International Monetary Fund (2013), public debt refers to the contractual financial commitments central government has pledged to repay to creditors at a future period, including both the principal amount and accumulated interest. In particular, public debt is subdivided into domestic public debt and foreign public debt, based on the location of debt holders, the currency in which the debt is denominated, and whether the debt was issued on the international debt market or the domestic debt market (Elmendorf & Mankiw, 1999).

The United Nations' sustainable development goals (SDGs) specified a list of objectives that must be attained by 2030. One of the objectives is to increase economic growth (United Nations, 2018). As the global economic structure shifts toward the fourth industrial revolution, governments have been compelled to invest in crucial sectors such as artificial intelligence, machine learning, technical advancement, and human capital (Al-kasasbeh et al., 2022). Without these crucial investments, economic growth would stagnate and nations will lose competitiveness if investments are diverted towards conventional industrial processes (World Economic Forum, 2017). Investing in the above-mentioned crucial sectors takes a substantial quantity of capital.

Consequently, taxes are considered one of the possible sources of income to support crises (Ono & Uchida, 2018). However, because taxing has distorting effects on economic growth, policymakers are less fond of it (Barro, 1979). If a country lacks finances, public debt is the sole viable alternative for financing government spending and other economic initiatives. This argument adheres to the Ricardian invariance theorem, which states that taxes imposes a disproportionate burden on the public by increasing the cost of living and decreasing people's buying power (Barro, 1979).

Against this backdrop, the primary purpose of this essay is to analyse the current economic research produced between 2010 and 2020 on the link between public debt levels and economic growth, examining both empirical evidence and theoretical frameworks. This

literature analysis varies significantly from past research in that it gives a full examination of the relationship between government debt and economic growth and terminates with some suggestions for future study.

The Theoretical Arguments on the Impact of Public Debt on Economic Growth

The previous studies on the relationship between public debt and economic growth have shown mixed results. In some studies, negative relationships are found. However, other studies have found a positive relationship. Consequently, the path of the relationship between public debt and economic growth can be summarized into three groups. Namely, no impact, negative impact, and positive impact.

Neutrality of Public Debt on Economic Growth

According to the Ricardian Equivalence Hypothesis (REH), increases in government expenditure, and consequently public indebtedness, lead to equivalent changes in private savings, and so have no effect on the actual economy. According to Ricardo's line of reasoning, the real economy is independent of the government's method of raising revenue, whether through taxation or debt issue, under specific circumstances. In his 1820 and 1877 works titled "Funding System" and "On the Principles of Political Economy and Taxation," respectively, Ricardo discussed the influence of governmental debt on resource allocation and economic growth. In the 20th century, Barro and Buchanan were the first to promote Ricardo's ideas in the literature with their articles "Are Government Bonds Net Wealth?" and "Is the public debt equivalent to taxation?" Barro and Buchanan's theoretical and empirical works led to what is now known as the REH, also known as the Barro-Ricardo Equivalence Hypothesis in certain literature. The REH stipulates that government debt solely explains the movement of financial resources among economic agents (Barro, 1989). Buchanan (1976), for example, contends that public sector debt has a direct influence only on private consumption and savings decisions, without contributing to the likelihood of net economic growth. This implies that changes in domestic and foreign public debt stocks are invariant with changes in important real macroeconomic variables, such as output and gross investment, and are, therefore, on the growth path of the economy (Barro, 1989). Similarly, in the neoclassical perspective, fluctuations in public debt resulting from expansionary fiscal policies are independent of the overall performance of the economy, supporting the claim that fiscal policy ineffective (Pereira

& Rodrigues, 2001). Therefore, according to the Barro-Ricardo Equivalence Theory, government indebtedness cannot be utilised as an economic stimulant (Barro, 1989).

Negative Impact of Public Debt on Economic Growth: A Theoretical

There is also a theoretical view that purports the impact of public debt on economic growth to be negative. This argument asserts that the REH does not hold and that real macroeconomic variables are negatively affected by public debt. The debt overhang concept explains specifically and fundamentally the negative impact of government debt on economic growth. The debt overhang hypothesis, initially proposed by Myers (1977), contends that the buildup of governmental debt, owing to fiscal deterioration, affects the private sector's ability to make optimum future investment decisions (Reinhart et al., 2012). This theory is backed by several traditional growth models, primarily in a neoclassical and endogenous environment, which claim that public borrowing weakens the financial discipline of the budget process and raises future tax burdens (Diamond, 1965; Meade, 1958; Modigliani, 1961). According to Diamond (1965), the level and changes in taxes due to domestic and foreign government borrowing have a negative impact on gross capital stock creation.

Positive Impact of Public Debt on Economic Growth: A Theoretical

There is also a body of theoretical literature that emphasises the significance of public debt in the economic growth process of a country, primarily backed by Adolf Wagner's "Law of increasing state activity", the fiscal multiplier impact of Keynesians, and conventional theory on public debt. The conventional theory’s explanation for the favourable link between public debt and economic growth is that the government needs to borrow from international financial and capital markets to make up for the difference between domestic investment and savings (Pattillo, Poirson, & Ricci, 2002). In contrast, the Keynesian perspective on the positive link between public debt and economic growth holds that deficit-financed government expenditure has a more favourable multiplier effect on the economy than tax-financed government spending (Kasasbeh, 2021). The Keynesian theory is that a rise in public sector expenditure (public debt) may promote domestic economic activity and, consequently, attract private investment (Elmendorf & Mankiw, 1999). Elmendorf and Mankiw (1999) noted that by introducing fresh financial resources into the economy, foreign public debts will stimulate aggregate demand and promote a rise in national output in the short term. In the literature, Delong and Summers (2012), Greiner (2006), and Gulde, Pattillo, and Christensen vouch for the favourable effect of

public debt on economic growth (2006). Table 1 presents a summary of studies on the impact of public debt on economic growth

Table 1: Summary of Previous Empirical Literature Review

1	AUTHORS	COUNTRY AND DATA	METHOD	MAJOR FINDINGS
	PUBLIC DEBT AND ECONOMIC GROWTH			
1	Checherita-Westphal, Cristina, and Philipp Rother (2012)	twelve euro region nations 1970 - 2010	GMM Arellano-Bond estimator	(-)
2	Uzun, Kabadayi, and Emsen (2012)	19 transitional economies	ARDL bounds testing approach	(+)
3	Panizza and Presbitero (2013)	OECD countries 1946–2009	survey the theoretical and empirical literature	~
4	Baum, Checherita-Westphal, and Rother (2013)	12 euro area countries 1990-2010	dynamic threshold panel methodology	(-)
5	Kourtellos, Stengos, and Tan (2013)	82 countries covering the period 1980–2009	structural threshold regression methodology	~
6	Kourtellos, Stengos, and Tan (2013)	82 advanced economies	Structural threshold methodology and Pooled panel linear regressions	~
7	Panizza and Presbitero (2014)	OECD countries 1946-2009	instrumental variable approach	(-)
8	Lof, and Malinen, (2014)	20 developed nations 1954–2008 and 1905–2008	panel vector autoregressions	(-)
9	Herndon, Ash, and Pollin, (2014)	Twenty propelled economies. 1946-2009	survey	(-)
10	Stylianou (2014)	Greece during the period1980 to 2010	Granger causality test	~
11	Panizza, and Presbitero (2014)	Jordan covering the period 1990 to 2013	(GMM) regressions	~
12	Al-Refai (2015)	OECD nations 1981 to 1995	OLS	(+)
13	Blake, (2015)	Jamaica 1990 to 2014	(OLS) and ARDL approach model	(-)
14	Égert (2015)	Greece 1960-2010	nonlinear threshold models	(-)
15	Pereima, Merki, and Correia, (2015)	a large sample of 154 countries	Threshold multiple panel regression models (TMR).	(-)

16	Ogawa, Sterken, and Tokutsu (2016)	31 European Union countries the period 1995 to 2013	panel VAR model	(-)
17	Owusu-Nantwi and Erickson (2016)	Ghana 1970 to 2012	Johansen and VECM	(+)
18	Chiu and Lee (2017)	61 countries 1985–2009	Hausman test	(+)
19	Chen, Yao, Hu, and Lin (2017)	China 1991– 2014	Multiple regression analysis	(-)
20	Kim, Ha, and Kim (2017)	77 countries 1990 to 2014	(OLS), (GMM) models	(-)
21	Chudik, Mohaddes, Pesaran, and Raissi (2017)	40 countries 1965-2010	dynamic heterogeneous panel data models	~
22	Ferando and Serafim (2018)	Angola 2004-2015	SAC -Spatial autocorrelation model	(-)
23	Gómez-Puig, and Sosvilla (2018)	euro area (EA) the period 1961-2013	Autoregressive Distributed Lag (ARDL) bounds	(-)
24	Esteve, and Tamarit (2018)	Spanish economy 1851–2013	dynamic ordinary least squares (DOLS) method	(-)
25	Ncanywa, and Masoga (2018)	South Africa	impulse response function, Granger causality, and autoregressive distributive lag	(-)

~ Means no impact between debt and economic growth
(+) Means positive relationships between debt and economic growth
(-) Means negative relationships between debt and economic growth

CONCLUSION

This paper seeks to determine whether a consensus exists about the impact of public debt on economic growth. In reference to selected articles, 15 were found to report a negative relationship between public debt and economic growth. However, the results also suggested that the relationship may be positive. Similarly, there were studies that supported the neutrality of public debt and economic growth. Therefore, there is no unanimity regarding the connection between public debt and economic growth. The nature of the relationship may be positive, negative, or neutral. Overall, this review demonstrates that the effect of public debt on economic growth is not constant and varies depending on a number of heterogeneous factors, such as the research methodology used, the level of development of the sampled countries, the relative size of the public sector, institutional quality, the composition and structure of the government debt, and the selected control variables, among others. The study finds, therefore, that the influence of public debt on economic growth is ambiguous, and that the concept that public debt is detrimental to economic growth is based only on prima facie evidence.

POLICY SUGGESTIONS

The findings of the present research have led to a number of suggestions for policymakers. First, policymakers should not set the debt-to-GDP ratio at 90% as Reinhart and Rogoff have suggested without prior investigation. The government should do a thorough analysis of the nation's economic state, taking into account the aims of the borrowings, the sources of the borrowings, and the nation's ability to repay. Due to own uniqueness and capacities of each nation, a universal criterion cannot be imposed on all. A nation with high debt and low income should consider reducing its debt until the national income is sufficient to cover the debt. However, in the event that the nation needs an extra source of funding, increasing the tax rate to replace the debt level is not a wise decision. Instead, the government should establish an atmosphere conducive to investment in order to attract additional investments that contribute to the national income.

REFERENCES

Al-kasasbeh, O., Alzghoul, A., & Alghraibeh, K. (2022). Global FDI inflows and outflows in emerging economies Post-COVID-19 era. Future Business Journal, 8(1), 1-9.

Al-kasasbeh, O., Alzghoul, A., & Alhanatleh, H. (2022). The Impact of Fiscal Policy and Trade Liberalization on Economic Growth: Evidence from Structural Breaks for Jordan. International Journal of Professional Business Review, 7(6), e0850.

Al-Refai, M. F. (2015). Debt and economic growth in developing countries: Jordan as a case study. International Journal of Economics and Finance, 7(3), 134-143.

Alzghoul, A., Al_kasasbeh, O., Alsheikh, G., & Yamin, I. (2023). The Relationship Between Savings and Investment: Evidence From Jordan. International Journal of Professional Business Review, 8(3), e01724-e01724.

Barro, R. J. (1974). Are government bonds net wealth? Journal of Political Economy, 82, 1095-1117.

Barro, R. J. (1979). On the determination of the public debt. Journal of political Economy, 87(5, Part 1), 940-971.

Barro, R. J. (1989). The Ricardian approach to budget deficits. The Journal of Economic Perspectives, 3, 37-54.

Baum, A., Checherita-Westphal, C., & Rother, P. (2013). Debt and growth: New evidence for the euro area. Journal of international money and finance, 32, 809-821.

Blake, T. (2015). Investigating the impact of public debt on economic growth in Jamaica. Working paper of Fiscal and Economic Program Monitoring Department Bank of Jamaica, Jamaica.

Buchanan, J. M. (1976). Barro on the Ricardian equivalence theorem. Journal of Political Economy, 84, 337-342.

Checherita-Westphal, C., &Rother, P. (2012). The impact of high government debt on economic growth and its channels: An empirical investigation for the euro area. European Economic Review, 56(7), 1392-1405.

Chen, C., Yao, S., Hu, P., & Lin, Y. (2017).Optimal government investment and public debt in an economic growth model. China Economic Review, 45, 257-278.

Chiu, Y. B., & Lee, C. C. (2017). On the Impact of Public Debt on Economic Growth: Does Country Risk Matter?. Contemporary Economic Policy, 35(4), 751-766.

Chudik, A., Mohaddes, K., Pesaran, M. H., &Raissi, M. (2017). Is there a debt-threshold effect on output growth?. Review of Economics and Statistics, 99(1), 135-150.

Diamond, P. (1965). National debt in a neoclassical growth model. American Economic Review, 55, 1126-1150.

Égert, B. (2015). Public debt, economic growth and nonlinear effects: Myth or reality?. Journal of Macroeconomics, 43, 226-238.

Elmendorf, D. W., & Mankiw, N. G. (1999). Government debt. Handbook of macroeconomics, 1, 1615-1669.

Esteve, V., & Tamarit, C. (2018). Public debt and economic growth in Spain, 1851–2013. Cliometrica, 12(2), 219-249.

Ferando Reis, C., & Serafim, J. (2018). Growth and Debt in Angola at Provincial Level (No. 172). CEsA-Center for African, Asian and Latin American Studies.

Gómez-Puig, M., & Sosvilla-Rivero, S. (2018). Nonfinancial debt and economic growth in euro-area countries. Journal of International Financial Markets, Institutions and Money, 56, 17-37.

Greiner, A. (2006). Human capital formation, public debt and economic growth. Journal of Macroeconomics, 30, 415-427.

Gulde, A., Pattillo, C., & Christensen, J. (2006). Sub-Saharan Africa: Financial sector challenges. Washington, DC: International Monetary Fund.

Herndon, T., Ash, M., & Pollin, R. (2014). Does high public debt consistently stifle economic growth? A critique of Reinhart and Rogoff. Cambridge journal of economics, 38(2), 257-279.

International Monetary Fund. (2013). Public sector debt statistics: A guide for compilers and users. Washington, DC: Author.

Kasasbeh, O. (2021). Public Debt and Economic Growth: Is There Any Causal Effect? An Empirical Analysis With Structural Breaks and Granger Causality for Jordan. INTERNATIONAL JOURNAL OF TRENDS IN ACCOUNTING RESEARCH, 2(1), 106-110.

Kim, E., Ha, Y., & Kim, S. (2017). Public Debt, Corruption and Sustainable Economic Growth. Sustainability, 9(3), 433.

Kourtellos, A., Stengos, T., & Tan, C. M. (2013). The effect of public debt on growth in multiple regimes. Journal of Macroeconomics, 38, 35-43.

Lof, M., & Malinen, T. (2014). Does sovereign debt weaken economic growth? A panel VAR analysis. Economics Letters, 122(3), 403-407.

Meade, J. E. (1958). Is the national debt a burden?. Oxford Economic Papers, 10(2), 163-183.

Modigliani, F. (1961). Long-run implications of alternative fiscal policies and the burden of the national debt. Economic Journal, 71, 730-755.

Myers, S. C. (1977). Determinants of corporate borrowing. Journal of financial economics, 5(2), 147-175.

Ncanywa, T., & Masoga, M. M. (2018). Can public debt stimulate public investment and economic growth in South Africa?. Cogent Economics & Finance, 6(1), 1516483.

Ogawa, K., Sterken, E., & Tokutsu, I. (2016). Public debt, economic growth, and the real interest rate: a panel VAR approach to EU and OECD countries.

Ono, T., & Uchida, Y. (2018). Human capital, public debt, and economic growth: A political economy analysis. Journal of Macroeconomics, 57(March), 1–14.

Owusu-Nantwi, V., & Erickson, C. (2016). Public debt and economic growth in Ghana. African Development Review, 28(1), 116-126.

Panizza, U., & Presbitero, A. F. (2014). Public debt and economic growth: is there a causal effect?. Journal of Macroeconomics, 41, 21-41.

Panizza, U., &Presbitero, A. F. (2013). Public debt and economic growth in advanced economies: A survey. Swiss Journal of Economics and Statistics, 149(2), 175-204.

Pattillo, C., Poirson, H., & Ricci, L. (2002). External debt and growth (IMF Working Paper No. 02/69). Washington, DC: International Monetary Fund.

Pereima, J. B., Merki, M., & Correia, F. M. (2015). Economic growth and public debt: Addressing unobserved heterogeneity. Avaiable at http://www. economia. ufpr. br.

Pereira, A. M., & Rodrigues, P. G. (2001). Public debt and economic performance (Ministério das Finanças, DGEP Working Paper 20).

Reinhart, C. M., & Rogoff, K. S. (2010). Growth in a Time of Debt. American economic review, 100(2), 573-78.

Reinhart, C.M., Reinhart, V.R. & Rogoff, K.S. (2012). Public debt overhangs: Advancedeconomy episodes since 1800, Journal of Economic Perspectives, 26 (3), 69-86.

Stylianou, T. (2014). Debt and economic growth: Is there any causal effect? An empirical analysis with structural breaks and Granger causality for Greece. Theoretical and Applied Economics, 21(1), 51-62.

United Nations. (2018). Sustainable development goals. Retrieved from https://www.un.org/sustainabledevelopment.com

Uzun, A., Karakoy, C., Kabadayi, B., & Emsen, O. S. (2012). The impacts of external debt on economic growth in transition economies. Chinese business review, 11(5).

World Economic Forum. (2017). The global competitiveness Report 2017–2018. Geneva: World Economic Forum.