Retirement Age Adjustment in Light of Policy Interconnections and Macroeconomic Impacts

Muhammad Singgih Pamungkas
International Open University - Gambia
singgih.pamungkas@bahasa.iou.edu

Abstract

This study investigates the macroeconomic consequences and policy interconnections associated with adjusting the retirement age. With increasing life expectancy and aging populations, many governments are raising the statutory retirement age to sustain pension systems and alleviate financial burdens. The research focuses on the economic and social impacts of this policy shift, particularly its effect on labor markets and income inequality. The study addresses the research question: How do retirement age adjustments affect labor force participation, government finances, and overall economic productivity? A qualitative methodology was used, including an in-depth literature review and analysis of demographic and economic data from various countries. The findings reveal that raising the retirement age can positively impact productivity by extending the working lives of older individuals. However, this shift also exacerbates inequality, as wealthier and healthier individuals benefit more than vulnerable populations in physically demanding jobs. The results emphasize the need for flexible retirement policies that account for socio-economic disparities. Tailored retirement options and incentives for delayed retirement can enhance economic stability while ensuring fairness in the labor market. The study concludes that while raising the retirement age has clear economic benefits, it requires careful policy planning to mitigate the adverse effects on disadvantaged groups.

Keywords

Retirement, Age, Policy, Labour, Macroeconomics.

Introduction

The concept of retirement age refers to the age at which an individual is eligible to receive their full pension benefits and withdraw from the workforce (Atav et al., 2021). This age varies across countries and can be influenced by various factors, such as life expectancy, economic conditions, and government policies. Understanding the definition of retirement age is crucial in analysing the implications of retirement on businesses and the overall economy.

One of the main challenges faced by governments around the world is the increasing age of their populations. As people live longer, the sustainability of pension systems is called into question. In response to this growing issue, governments have implemented various policies aimed at addressing the challenges posed by an ageing population and ensuring the long-term viability of pension systems. These policies may include reforms to retirement age, adjustments to pension benefits, incentives for individuals to save for retirement, and measures to encourage older individuals to remain in the workforce longer (Geyer et al., 2020).

One common approach is to gradually increase the statutory retirement age, which can have significant implications for both employees and employers as well as macroeconomics consequences. This policy shift aims to encourage longer working lives, reduce the burden on pension systems, and maintain a productive workforce (Rabaté and Rochut, 2020).

By taking a proactive approach to the demographic shifts caused by an ageing population, governments can better ensure the financial security and well-being of their citizens both now and in the future. Furthermore, the implementation of these policies is crucial in order to prevent a strain on government finances and to maintain social welfare programs for current and future generations. It is imperative that governments continue to monitor demographic trends and adjust their policies accordingly to promote a sustainable and secure pension system for all individuals (Geyer et al., 2020).

This can result in increased productivity and efficiency, as older workers tend to have more knowledge and expertise in their respective fields. Additionally, having workers stay in the workforce longer can help alleviate the strain on social security systems, as individuals will be contributing to the system for a longer period before drawing benefits. On the other hand, raising the retirement age can also have negative effects on the economy. It may lead to increased competition for jobs, as older workers may be less likely to retire and make way for younger individuals entering the workforce. This could result in decreased job opportunities for younger generations, leading to higher levels of unemployment. Furthermore, keeping older individuals in the workforce may also hinder opportunities for career advancement and promotions for younger employees. This could result in decreased motivation and job satisfaction among younger workers, ultimately impacting overall productivity and innovation within the economy (Pilipiec et al., 2021).

This can benefit businesses by reducing the need for costly training and onboarding of new employees. However, the extended working life can also result in increased job strain and

potential health issues among older workers, which may impact their productivity and well-being (Carrino et al., 2020).

Furthermore, the economic implications of retirement age changes can be complex and farreaching. Raising the retirement age can lead to a reduction in the number of retirees, which may alleviate the burden on pension systems and government budgets (Kuitto and Helmdag, 2021). However, it may also result in a shortage of job opportunities for younger workers, as older employees remain in the workforce for a more extended period. This could potentially lead to intergenerational tensions and challenges in the labour market (Rose, 2020).

Businesses must carefully consider the impact of retirement age changes on their workforce and adapt their strategies accordingly. Implementing effective human resource policies, providing support for older workers, and fostering a positive work environment can help mitigate the potential challenges and leverage the benefits of an extended working life.

This study is a comprehensive examination of the economic and social impacts of certain changes within various sectors. Specifically, it aims to investigate how these changes affect labor markets, pension systems, and business strategies, with a particular focus on industries that heavily rely on older workers. By delving into these specific areas, the study seeks to gain a deeper understanding of the challenges and opportunities that arise as a result of these changes. Through the use of qualitative research methods, the objective is to provide insightful assessments and recommendations to address these issues effectively. The knowledge and insights gained from this study are intended to inform government policy and decision-making in the macroeconomics sectors. By offering suggestions on how to navigate the obstacles presented by these changes, the study aims to support better decision-making and facilitate the implementation of strategic solutions to current problems.

Literature review

The labour force is a crucial component of any economy, and its productivity is a significant driver of economic growth. According to Van der Heide et al. (2013), the relationship between retirement and health is complex, with some studies suggesting that retirement can have positive effects on health, while others indicate negative impacts. Retirement is a significant life event that can have various impacts on an individual's health. Some studies suggest that retirement can lead to improved health outcomes, as it provides individuals with more time to focus on self-care, exercise, and relaxation. This newfound freedom from the stress and demands of a job can lead to lower levels of anxiety and improved mental well-being. On the other hand, some research indicates that retirement can have negative effects on health. The sudden change in routine and social interactions that retirement brings can lead to feelings of loneliness and isolation, which are known risk factors for poor health outcomes. Additionally, the loss of a sense of purpose and

identity that often comes with retirement can contribute to feelings of depression and a decline in overall well-being.

Sewdas et al. (2020) conducted a systematic review and meta-analysis, which found that working longer is associated with a lower risk of mortality, suggesting that prolonging working life may have beneficial economic implications. This finding suggests that prolonging one's working life could have positive economic implications, not just for the individual, but also for society as a whole. By staying active and engaged in the workforce, individuals may experience improved physical and mental well-being, leading to a longer and healthier life. Additionally, working longer can help individuals continue to contribute to the economy, whether through taxes, consumer spending, or other forms of economic activity.

Wu et al. (2016) examined the association between retirement age and mortality, and their findings indicate that delaying retirement is associated with a lower risk of mortality. This suggests that policies aimed at extending the working life of individuals may have positive economic implications, as a healthier and more productive labour force can contribute to increased economic output and growth. Andersen et al. (2020) explored the barriers and opportunities for prolonging working life across different occupational groups. Their study highlights the importance of addressing the specific needs and challenges faced by different sectors to enable a more inclusive and sustainable approach to extending the working life of individuals.

The health of the labour force is a crucial consideration in the design of retirement age policies. Rijs et al. (2012) examined the effect of retirement and age at retirement on self-perceived health, and their findings suggest that the impact of retirement on health can vary depending on the individual's age and other factors. Serrano-Alarcón et al. (2023) investigated the health and labour market effects of an unanticipated rise in the retirement age in Italy. Their study provides valuable insights into the potential consequences of changes in retirement age policies, highlighting the need for a comprehensive approach that considers both the economic and health implications.

Lee and Shin (2019) explored the nonlinear effects of population aging on economic growth, emphasizing the importance of addressing the challenges posed by an aging workforce. Their findings suggest that. Policymakers must carefully consider how these demographic shifts will affect the overall economy and make informed decisions on policies that promote sustainable economic growth. Furthermore, the composition of the workforce is also changing, with more women and older adults participating in the labor force. This trend has important implications for economic outcomes, as it can lead to a more diverse and skilled workforce. Policymakers must support policies that encourage the participation of these demographic groups in the labor market, such as providing access to flexible work arrangements and training programs.

The relationship between retirement and economic impact is a critical area of research. Sewdas et al. (2020) found that working longer is associated with a lower risk of mortality, suggesting that potential economic benefits of prolonging working life is the increase in productivity. As people continue to work longer, they are able to contribute their skills and experience to the workforce

for a longer period of time. This can result in higher levels of productivity and efficiency, as older workers bring a wealth of knowledge and expertise to their roles. Additionally, prolonging working life can help to alleviate some of the strain on social security systems and pension funds. As people work longer, they are able to continue earning a salary and contributing to these programs, reducing the burden on governments and insurance companies to provide financial support for retirees. This can help to stabilize these systems and ensure their long-term sustainability. Furthermore, extending working life can have a positive impact on economic growth. With more people actively participating in the workforce, there is a larger pool of workers available to drive innovation, create new businesses, and stimulate economic development. This can lead to increased job opportunities, higher levels of consumer spending, and overall economic prosperity.

Wu et al. (2016) examined that delaying retirement is not only beneficial for individuals in terms of their financial security, but also has significant implications for their overall health and well-being. Studies have found that individuals who continue working past the traditional retirement age are less likely to experience chronic health conditions such as heart disease, diabetes, and obesity. This is likely due to the fact that working provides individuals with a sense of purpose and social connection, which are important factors in maintaining good health. In addition to the health benefits for individuals, delaying retirement also has positive implications for the economy as a whole. A healthier and more productive labour force means that there are more workers contributing to economic output, which can lead to increased growth and prosperity. This is particularly important as populations around the world age and the number of retirees increases, putting strain on social security systems and healthcare resources. Policies aimed at encouraging individuals to delay retirement, such as providing incentives for continued work or offering flexible work options for older workers, can have far-reaching effects on both individuals and society as a whole. By recognizing the potential benefits of extending the working life of individuals, policymakers can create a more sustainable and prosperous future for all.

Carta and De Philippis (2024) investigated the forward-looking effect of increasing the full retirement age. Their study delves deep into the intricate web of economic factors that come into play when retirement age policies are altered, shedding light on the potential ripple effects that could impact various sectors of the economy. By examining the connections between retirement age policies and economic outcomes, the study underscores the importance of taking a holistic and forward-thinking approach to creating and implementing such policies. Furthermore, the research emphasizes the necessity of considering the long-term implications of changes in retirement age policies, as these decisions have the potential to have far-reaching effects on the economy as a whole. By taking into account factors such as workforce participation, productivity levels, and social security expenditures, policymakers can make more informed decisions that maximize positive outcomes for both individuals and the economy. In conclusion, the study underscores the need for a comprehensive approach to retirement age policies that considers not only the immediate impacts but also the broader economic implications.

Methods

The methodology utilized in this study was meticulously crafted to ensure a comprehensive and rigorous analysis. By integrating qualitative analysis with an exhaustive review of existing literature, the researchers endeavored to offer a holistic understanding of the various impacts of macroeconomics and retirement policies on different countries. This approach allowed for a deep dive into the complexities and nuances of these issues, shedding light on the multifaceted implications that can arise in diverse geopolitical and economic contexts. Through this methodical and meticulous approach, the study aimed to provide valuable insights and contribute to the existing body of knowledge on these critical subjects.

The researchers employed a comprehensive methodology by utilizing information from a diverse range of sources including academic literature, financial reports, and statistical data. This multifaceted approach was essential in gaining a holistic understanding of the intricate interplay between macroeconomics and retirement policies. By meticulously examining and analyzing these sources, the researchers were able to uncover key patterns and themes that shed light on the complexities of this relationship. Through their thorough investigation, the researchers were able to draw insightful conclusions that have significant implications for future research and policymaking. By delving deep into the nuances of macroeconomics and retirement policies, they were able to identify important trends and dynamics that can inform and guide decision-making processes in these areas.

Overall, the methodology employed in this study highlights the importance of taking a holistic approach when examining complex topics like macroeconomics and retirement policies. By using a combination of qualitative analysis and extensive literature review, the researchers were able to uncover valuable insights that contribute to the existing body of knowledge in this field.

Analysis/Discussion

Incentive Pension and Retirement Policies

The relationship between raising the retirement age and labour force inequality has been a subject of extensive research. Studies have shown that increasing the retirement age can have unequal impacts on different segments of the workforce, often exacerbating existing inequalities.

One key aspect is the impact on employment of older workers. Ardito (2021) found that raising the retirement age can lead to a significant increase in the employment of older workers, but the effect is not evenly distributed. The study observed that the employment response is stronger for individuals with higher levels of education and income, while those with lower socioeconomic status are less likely to benefit from the policy change. This suggests that raising the retirement age may disproportionately benefit the more advantaged segments of the workforce, potentially widening the gap between high-income and low-income individuals.

Similarly, Staubli and Zweimüller (2013) examined the employment effects of raising the early retirement age in Austria. They found that the policy change led to a significant increase in the employment of older workers, but the impact was more pronounced for those with higher levels of education and better health. This implies that the benefits of raising the retirement age may not be equally distributed, with the more vulnerable groups, such as those with lower skills or poorer health, facing greater challenges in extending their working lives.

The design of pension policies can also play a crucial role in shaping the impact of raising the retirement age on labour force inequality. Boeri et al. (2022) investigated the labour demand effects of an increase in the retirement age in a model with heterogeneous workers and firms. They found that the impact on employment and wages depends on the specific pension incentives in place. For instance, if the pension system provides strong incentives for early retirement, the increase in the retirement age may lead to a reduction in the employment of older workers, as they may choose to exit the labour force earlier.

On the other hand, Engels et al. (2017) found that pension incentives that encourage later retirement can help mitigate the negative effects of raising the retirement age. Their study showed that policies that provide financial incentives for individuals to work longer, such as higher pension benefits for delayed retirement, can help increase the employment of older workers and reduce the unequal impact of the policy change.

Bertoni and Brunello (2021) further explored the intergenerational effects of raising the retirement age. They found that an increase in the retirement age can have a negative impact on the employment of younger workers, as it may reduce job opportunities and lead to labour market congestion. However, this effect can be moderated by the design of pension policies, such as providing stronger incentives for older workers to remain in the labour force.

The implementation of pension reforms, including changes to the retirement age, can also have broader implications for inequality. Carta and De Philippis (2024) examined the forward-looking effect of increasing the full retirement age in Italy. They found that the policy change led to a reduction in the wealth inequality between older and younger individuals, as the higher retirement age reduced the relative advantage of older cohorts in the labour market.

Similarly, Lee and Shin (2019) investigated the nonlinear effects of population aging on economic growth, which can have implications for inequality. They found that as the population ages, the impact on economic growth can be positive or negative depending on the specific demographic and policy factors, such as the retirement age and pension system design.

Labour Economy

The labour economy is a crucial aspect of the overall economic landscape, as it directly influences the distribution of wealth and opportunities within a society. One key factor that has a significant impact on the labour economy is the age structure of the population. According to a study by Leahy and Thapar (2022), the age structure of a

population can have a substantial impact on the effectiveness of monetary policy, which in turn affects the labour market and income inequality.

The researchers found that in economies with an older population, monetary policy tends to have a more pronounced effect on income inequality. This is because older individuals are more likely to be retired and reliant on fixed incomes, such as pensions, which are more sensitive to changes in interest rates. Consequently, when the central bank adjusts monetary policy, the impact is felt more acutely by the retired population, leading to a widening of the income gap between the working and non-working segments of the society (Leahy and Thapar, 2022).

Furthermore, the study also highlights the role of pension incentives in influencing retirement decisions and, by extension, the labour force participation rate. Engels, Geyer, and Haan (2017) found that pension incentives, such as early retirement schemes, can have a significant impact on the timing of retirement. Individuals who are faced with more generous pension benefits are more likely to retire earlier, reducing their overall participation in the labour force.

This reduction in the labour force participation rate can have knock-on effects on the overall economic productivity and growth, as well as the distribution of income and wealth within the society. As the proportion of retirees increases, the burden on the working population to support the social safety net, such as pensions and healthcare, also rises, potentially exacerbating income inequality (Engels et al., 2017).

The impact of monetary policy on the retired population is a critical consideration for policymakers, as it can have significant implications for income inequality and the overall well-being of the elderly. Leahy and Thapar's (2022) research highlights the importance of understanding the age structure of the population when formulating monetary policy.

In economies with an older population, the researchers found that monetary policy tends to have a more pronounced effect on income inequality. This is because the retired population, who are more reliant on fixed incomes such as pensions, are more sensitive to changes in interest rates. When the central bank adjusts monetary policy, the impact is felt more acutely by the retired population, leading to a widening of the income gap between the working and non-working segments of the society (Leahy and Thapar, 2022).

The study also emphasizes the role of pension incentives in influencing retirement decisions and, by extension, the labour force participation rate. Engels, Geyer, and Haan (2017) found that more generous pension benefits can encourage earlier retirement, reducing the overall participation in the labour force. This reduction in the labour force

participation rate can have significant implications for economic productivity and growth, as well as the distribution of income and wealth within the society.

As the proportion of retirees increases, the burden on the working population to support the social safety net, such as pensions and healthcare, also rises, potentially exacerbating income inequality. Policymakers must carefully consider the impact of monetary policy on the retired population and the broader implications for income inequality and economic stability (Engels et al., 2017).

Macroeconomic Impacts and Retirement Policy

The macroeconomic impact of working-age policies can also be influenced by demographic factors, such as the age distribution of the population and the dependency ratio. Policies that address the needs of the working-age population may have different implications depending on the overall demographic landscape, with the potential to either exacerbate or mitigate economic challenges (Leahy and Thapar, 2022). The ageing population and its impact on the labour market and the broader economy have been a subject of growing concern in recent years. As the proportion of older individuals in the population increases, it has significant implications for economic growth, public finances, and the labour market (Nerlich and Schroth, 2018).

One of the key aspects of this demographic shift is the impact on retirement patterns. As people live longer and healthier lives, the traditional retirement age is becoming less relevant. Many individuals are now choosing to work beyond the traditional retirement age, either out of necessity or personal preference (Bodnár and Nerlich, 2022). This shift in retirement patterns can have both positive and negative implications for the labour market and the economy.

On the positive side, a more experienced and skilled workforce can contribute to increased productivity and economic growth. Older workers often possess valuable knowledge and expertise that can be leveraged to benefit the economy (Carone et al., 2005). Additionally, the continued participation of older workers in the labour force can help to mitigate the potential labour shortages that may arise due to the ageing population.

However, the shift in retirement patterns can also present challenges. As the proportion of older workers in the labour force increases, there may be a need for employers to adapt their policies and practices to accommodate the needs of this demographic. This could include providing more flexible work arrangements, investing in training and

development programs, and ensuring that the work environment is inclusive and supportive of older workers (Nickel et al., 2008).

The changing retirement patterns can have implications for public finances, particularly in terms of the sustainability of pension systems. As more individuals choose to work beyond the traditional retirement age, the burden on public pension systems may decrease, but there may also be a need to adjust the design and funding of these systems to ensure their long-term viability (Bongaarts, 2004). By improving the functioning of the labour market, these policies can contribute to a more efficient allocation of resources, leading to increased productivity and economic output. Furthermore, a well-functioning labour market can also enhance the resilience of the economy to external shocks, as workers are better able to adapt to changing economic conditions (Leahy and Thapar, 2022).

The ageing population and its impact on the labour market and the broader economy are also influenced by various macroeconomic factors. These factors can have significant implications for the overall economic performance and the ability of governments and policymakers to respond to the challenges posed by demographic change.

One of the key macroeconomic factors is the impact of population ageing on economic growth. As the proportion of older individuals in the population increases, there may be a slowdown in the growth of the labour force, which can have a negative impact on economic growth (Goh and McNown, 2020). This, in turn, can have implications for government revenues and the ability to fund social programs and public services.

Another important macroeconomic factor is the impact of population ageing on inflation and monetary policy. As the population ages, the demand for certain goods and services, such as healthcare and retirement-related products, may increase, which can put upward pressure on prices (Lee and Shin, 2019). This can have implications for the conduct of monetary policy and the ability of central banks to maintain price stability.

Policies that affect the productivity and earnings potential of the working-age population can have ripple effects throughout the economy. For example, investments in human capital development, such as improved access to healthcare and education, can enhance the skills and capabilities of the workforce, leading to increased productivity and higher incomes. This, in turn, can drive consumer spending, business investment, and overall economic growth (Leahy and Thapar, 2022).

The ageing population can also have implications for the fiscal sustainability of governments. As the proportion of older individuals in the population increases, the demand for public services, such as healthcare and pensions, may rise, putting pressure on government budgets (Kitao and Mikoshiba, 2020). Governments may need to adjust their fiscal policies, such as increasing taxes or reducing spending, to ensure the long-term sustainability of their public finances.

The impact of population ageing on the global economy is also an important consideration. As the population ages in different regions of the world, the global economic landscape may shift, with implications for trade, investment, and the movement of labour (Liu and McKibbin, 2022). Policymakers and businesses will need to adapt to these changes to remain competitive and ensure the continued prosperity of the global economy.

Leahy and Thapar (2022) found that changes in the age structure of the population can have significant effects on the transmission of monetary policy, with a larger working-age population leading to a more potent response to interest rate changes. This suggests that policies designed to encourage labour force participation, such as investments in education and training or the provision of childcare support, could have broader macroeconomic consequences by amplifying the effectiveness of monetary policy interventions.

Conclusion

The study on retirement age adjustment highlights the significant economic and social implications of extending the working life of individuals. Increasing the retirement age can alleviate pressure on pension systems, reduce the financial burden on governments, and ensure the sustainability of social security programs. However, the impacts are uneven across different sectors and socio-economic groups. Older workers with better health and higher incomes benefit the most from the policy changes, while those in physically demanding jobs or with lower socio-economic status face greater challenges. The delayed retirement age can also increase competition in the labor market, affecting younger workers' opportunities for employment and career advancement. Overall, while raising the retirement age contributes to labor market productivity and economic stability, it poses challenges that require careful policy planning to ensure fairness and inclusivity.

To address these challenges, the study recommends a multi-pronged approach to retirement age policies. Initially, governments should implement flexible retirement schemes that cater to different socio-economic groups, allowing those in physically demanding jobs to retire earlier without

financial penalties. Subsequently, businesses must adopt age-friendly workplace practices, including offering flexible work hours, job retraining programs, and health support for older employees. Also, policymakers should consider financial incentives for both early and delayed retirement, depending on individual needs. Additionally, continuous monitoring of demographic trends and economic conditions is crucial to adjust retirement policies as necessary. This comprehensive approach ensures a balanced response to the economic and social impacts of retirement age adjustments, promoting fairness and sustainability across the workforce.

References

- Andersen, L. L., Jensen, P. H., & Sundstrup, E. (2020). Barriers and Opportunities for Prolonging Working Life Across Different Occupational Groups: the Senior Working Life Study. *European Journal of Public Health*, 30(2), 241-246.
- Ardito, C. (2021). The Unequal Impact of Raising the Retirement Age: Employment Response and Program Substitution. IZA Journal of Labor Economics, 10(1).
- Atav, T., Jongen, E. L., & Rabat, S. (2021). Increasing the Effective Retirement Age: Key Factors and Interaction Effects (No. 14150). IZA Discussion Papers.
- Bertoni, M., & Brunello, G. (2021). Does a Higher Retirement Age Reduce Youth Employment?. *Economic Policy*, 36(106), 325-372.
- Bodnár, K., & Nerlich, C. (2022). The Macroeconomic and Fiscal Impact of Population Ageing (No. 296). ECB Occasional Paper.
- Bertoni, M., & Brunello, G. (2021). Does a Higher Retirement Age Reduce Youth Employment?. *Economic Policy*, 36(106), 325-372.
- Bongaarts, J. (2004). Population Aging and the Rising Cost of Public Pensions. *Population and Development Review*, 30(1), 1-23.
- Carone, G., Costello, D., Diez Guardia, N., Mourre, G., Przywara, B., & Salomäki, A. (2005). The Economic Impact of Ageing Populations in the EU25 Member States. Directorate General for Economic and Financial Affairs Eropean Economy, Economic Working Paper, (236).
- Carrino, L., Glaser, K., & Avendano, M. (2020). Later Retirement, Job Strain, and Health: Evidence From the New State Pension Age in the United Kingdom. *Health Economics*, 29(8), 891-912.
- Carta, F., & De Phillippis, M. (2024). The Forward-Looking Effect of Increasing the Full Retirement Age. The Economic Journal, 134(657), 165-192.
- Engels, B., Geyer, J., & Haan, P. (2017). Pension Incentives and Early Retirement. Labour Economics, 47, 216-231.
- Geyer, J., Haan, P., Hammerschmid, A., & Peters, M. (2020). Labor Market and Distributional Effects of an Increase in the Retirement Age. *Labour Economics*, 65, 101817.
- Goh, S. K., & McNown, R. (2020). Macroeconomic Implications of Population Aging: Evidence from Japan. *Journal of Asian Economics*, 68, 101198.
- Kitao, S., & Mikoshiba, M. (2020). Females, the Elderly, and Also Males: Demographic Aging and Macroeconomy in Japan. *Journal of the Japanese and International Economies*, 56, 101064.
- Kuitto, K., & Helmdag, J. (2021). Extending Working Lives: How Policies Shape Retirement and Labour Market Participation of Older Workers. Social Policy and Administration, 55(3), 423-439.
- Leahy, J. V., & thapar, A. (2022). Age Structure and the Impact of Monetary Policy. American Economic Journal: Macroeconomics, 14(4), 136-137.

- Lee, H. H., & Shin, K. (2019). Nonlinear Effects of Population Aging on Economic Growth. *Japan and the World Economy*, 51, 100963.
- Liu, W., & McKibbin, W. (2022). Global Macroeconomic Impacts of Demographic Change. The World Economy, 45(3), 914-942.
- Nerlich, C., & Schroth, J. (2018). The Economic Impact of Population Ageing and Pension Reforms. *Economic Bulletin Articles*, 2.
- Nickel, C., Rother, P., & Theophilopoulou, A. (2008). Population Ageing and Public Pension Reforms in a Small Open Economy.
- Pilipiec, P., Groot, W., & Pavlova, M. (2021). The Effect of an Increase of the Retirement Age on Health, Well-Being, and Labor Force Participation of Older Workers: A Systematic Literature Review. *Journal of Population Ageing*, 14, 271-315.
- Rabaté, S., & Rochut, J. (2020). Employment and Substitution Effects of Raising the Statutory Retirement Age in France. *Journal of Pension Ecoomics and Finance*, 19(3), 293-308.
- Rijs, K. J., Cozijnsen, R., & Deeg, D. J. (2012). The Effect of Retirement and Age at Retirement of Self-Perceived Health After Three Years of Follow-Up in Dutch 55-64-years-old. Ageing and Society, 32(2), 281-306.
- Rose, L. (2020). Retirement and Health: Evidence from England. *Journal of Health Economics*, 73, 102352.
- Serrano-Alarcón, M., Ardito, C., Leombruni, R., Kentikelenis, A., d'Errico, A., Odone, A., ... & IWGRH. (2023). Health and Labor Market Effects of an Unanticipated Rise in Retirement Age. Evidence from the 2012 Italian Pension Reform. *Health Economics*, 32(12), 2745-2767.
- Sewdas, R., De Wind, A., Stenholm, S., Coenen, P., Louwerse, I., Boot, C., & VanDerBeek, A. (2020). Association Between Retirement and Mortality: Working Longer, Living Longer? A Systematic Review and Meta-Analysis. *Journal Epidemiol Community Health*, 74(5), 473-480.
- Staubli, S., & Zweimüller, J. (2013). Does Raising the Early Rertirement Age Increase Employment of Older Workers?. *Journal of Public Economics*, 108, 17-32.
- Van der Heide, I., Van Rijn, R. M., Robroek, S. J., Burdorf, A., & Proper, K. I. (2013). Is Retirement Good For Your Health? A Systematic Review of Longitunidal Studies. *BMC Public Health*, 13, 1-11.
- Wu, C., Odden, M. C., Fisher, G. G., & Stawski, R. S. (2016). Association of Retirement Age with Mortality: a Population-Based Longitudinal Study Among Older Adults in the USA. *J Epidemiol Community Health*, 70(9) 917-923.