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STRIDES – A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE

ISSN 2581-4931 (PRINT)

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The college appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the college has taken the initiative to launch a new Journal named 'Strides – A Students' Journal of Shri Ram College of Commerce'.

ABOUT THE JOURNAL

It is a double blind reviewed bi-annual Journal launched exclusively to encourage students to pursue research on the contemporary topics and issues in the area of commerce, economics, management, governance, polices etc. The journal provides an opportunity to the students and faculty of Shri Ram College of Commerce to publish their academic research work.

PUBLICATION POLICY

Shri Ram College of Commerce is committed to upholding the high academic standards. Therefore, the Committee On Publication Ethics (COPE) follows a 3-Stage Selection Process while approving a paper for publication in this Journal. The policy is as follows:

Stage-1. Screening of Plagiarism

To maintain high academic standards, academic ethics and academic integrity each research paper received by COPE (Committee On Publication Ethics) is sent for screening of plagiarism on "Turnitin". The committee adheres to the maximum tolerance limit of 25%.

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Stage-2. Double Blind Review

The journal adheres to a rigorous double-blind review policy. Each research paper received by COPE is sent for review to the *Referee* (Subject Expert). The reports submitted by the *Referees* are sent to the respective students for improvement (if any, suggested by the *Referees*). After reporting all the suggestions recommended by the *Referees*, the revised and improved version of the papers are re-submitted by the students to the COPE.

If a research paper is rejected by the *Referee*, no further proceedings are taken into account. Once rejected by the expert means cannot be published at all.

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Since COPE is the apex authority to take all decisions related to publication of research papers and articles in 'Strides – A Students' Journal of Shri Ram College of Commerce', the decision of COPE is final and binding.

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The following guidelines are to be carefully adhered by the students before final submission of the manuscript. The submitted manuscripts not conforming to the following guidelines are not taken into consideration for any further processing.

Format

Format of the article on the front page should be:

a) Title
b) Name(s) of the student(s) and mentor along with their details
c) Abstract
d) Keywords

Abstract

The abstract should capture the essence of the article and entice the reader. It should typically be of 100 -150 words, and in Italics.

Font type and word limit

The research paper is to be typed on A-4 size paper with single line spacing. The complete length of the paper should not exceed 5000 words including endnotes and references. The font size should be 12 and font style should be Times New Roman.

Referencing style

The Journal adheres to the APA (American Psychological Association) Referencing Style, Sixth Edition. Students must refer to the APA Referencing Guidelines to ensure conformance to this reference style. For further information you may visit the following link - http://www.apastyle.org

Endnotes

Endnotes should be serially arranged at the end of the article well before the references and after conclusion.

Table, Figures, Graphs

The first letter of the caption for table, figure, graph, diagram, picture etc. should be in capital letter and the other words should be in small letter - e.g. Table-1: Demographic Data of Delhi, Figure-1: Pictorial Presentation of Population etc.

MANUSCRIPT SUBMISSION GUIDELINES

Soft Copy: The soft copy of the manuscript should be sent through e-mail to the editor at strides@srcc.du.ac.in and cc to principaloffice@srcc.du.ac.in.

Hard Copy: The hard copy (3-Sets) of the manuscripts should be submitted in the Administrative Office of the College.

Declaration

As part of the submission process, the student and mentor needs to declare that they are submitting original work for the first publication in the Journal and that their work is not being considered for publication elsewhere and has not already been published elsewhere. Again, the paper should not have been presented in any seminar or conference. The scanned copy of duly signed declaration by the students and their respective mentors has to be emailed along with the research paper.

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The student(s) remain the whole and sole author of their respective research papers published in 'Strides – A Students' Journal of Shri Ram College of Commerce' and hold its copyright. Also, the 'author' is wholly and solely responsible for plagiarism caught after publication (if any). The Editor, Referees, Mentors, COPE, SRCC, Printer, Publisher and Printing Press shall not be responsible for any plagiarism.

AWARD

The authors of best three papers from every Issue are awarded – First Prize, Second Prize and Third Prize on the SRCC Annual Day.

Principal's Message

The mission statement of the college signifying the existence and its road map to the achievement of its vision, reads as:

"To achieve and sustain excellence in teaching and research, enrich local, national and international communities through our research, improve skills of alumni, and to publish academic and educational resources"

To achieve and promote excellence in publications and applied research, the college has taken the initiative to launch a new journal exclusively to publish students' research papers and articles. It will be an add-on to the enriched catalogue of college publications and academic literature.

The Journal has provided an opportunity to the students of our college to focus on research. Since the students were not opened to the research methodologies at the undergraduate level, they were mentored by experienced faculty of our college. Simultaneously, their articles were also reviewed by the referees and tested for plagiarism before publication. After reporting all the suggestions recommended by the referees, the articles were revised and then finally published. The college had successfully released the foundation issue of the Journal **"Strides - A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17"** on the occasion of 91st Annual Day of the College held on 13th April, 2017. The Journal was released by **Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India.**

I would like to congratulate the students whose papers are published in this issue of the journal and simultaneously encourage all the students to contribute their research papers and articles for the successive issues of the Journal.

Best wishes for their future endeavors.

Prof. Simrit Kaur
Principal

Editor's Message

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The college appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the college has taken the initiative to launch a new Journal named 'Strides - A Students' Journal of Shri Ram College of Commerce' to encourage students to pursue research under the guidance of the faculty of Shri Ram College of Commerce.

It is a bi-annual Journal launched exclusively to publish academic research papers and articles by the students on contemporary topics and issues in the area of commerce, economics, management, governance, policies etc.

In order to maintain the high standards of publication, COPE (Committee On Publication Ethics) has been constituted. The COPE shall be the apex authority to take all the decisions related to the publication of research papers and articles in Strides. The decision of COPE shall be final and binding.

To maintain the high academic standards, academic ethics and academic integrity, a rigorous process of double blind review of research papers is followed along with screening of plagiarism of each manuscript received by the COPE for publication. The research work published in Strides is original and not published or presented at any other public forum.

The foundation issue of the Journal **"Strides - A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17"** was successfully released on 91st Annual Day of SRCC held on 13th April, 2017 by **Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India.**

The successive Issues of 'Strides - A Students' Journal of Shri Ram College of Commerce' shall be bi-annually released.

I congratulate all the students whose research papers are published in this Issue of Strides and express my sincere thanks to their mentors and referees.

Dr. Santosh Kumari
Editor

STRIDES - A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE

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RESEARCH PAPERS

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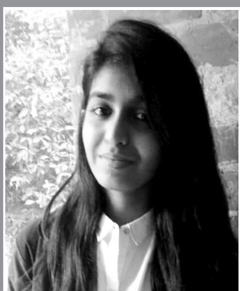

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The Puzzle: Impact of Elderly Population on Price Dynamics in Developed Nations

Abstract

What explains the variation in prices in a developed nation? The role of monetary and fiscal policy, interest rates, ideas and institutions have always been emphasized while leaving the role of change in the ratio of elderly population unexplored. Ageing population is an ineluctable process with major economic implications. This paper tries to explore the unexplored area that is the impact of elderly population on price dynamics. The main aim of this paper is to find out how the ageing population is linked to price dynamics, and also to find out whether it is correlated to deflation or not. This paper illustrates how ageing population influences price through various macroeconomic variables such as saving rate, consumption preferences, human capital and expectation of growth with the help of literature review. Some have inflationary effects, some deflationary and some show ambiguous results. This correlation has further been corroborated by taking five developed countries where rise in the ageing population has been observed.

Keywords – Price Dynamics, Macroeconomic Variable, Old age dependency Ratio, working age population

INTRODUCTION

According to (Harper and Leeson, 2009), most of the developed countries around the globe are approaching an era of ageing population due to fall in fertility rates and rise in longevity. The World Population Prospects 2019 (United Nations, 2019), also states that by around 2050, 1 in 6 people in the world will be around the age 65 and above, up from 1 in 11 in 2019. Similar results have been shown by World Population Ageing 2019, by the United Nations, which argues that all societies in the world are amid this ageing revolution – just the difference is in the stages where they are in. But all the countries are going to pass through this aging transition, where the chance of surviving to age 65 and above will increase from less than 50% to 90%.Thus, what we see today in the developed countries is that, the proportion of adult life spent above the age 65 has increased from less than fifth in 1960 to quarter or more.

A rise in the population ageing in a country influences its labor supply, wage levels, social dependency ratio and so on. The ongoing ageing population will influence the price dynamics of a country. Previously, various studies have tried to show a relationship between low inflation and demography. However, there is not much evidence for this hypothesis. Thus, this paper tries to assess the existence of the link between population ageing and inflation of the developed nations, and especially the correlation between ageing and low inflation rate. Therefore, if the correlation can be relatively predicted, the impact of ageing population on price dynamics may be taken into account in future monetary policy decisions. At face value, results in this article contribute to the debate concerning the observation of any link between old age population and price dynamics.

This paper illustrates how ageing population will influence the price dynamics through various macroeconomic variables such as human capital, consumption, saving preferences and expectation of economic growth. In this paper, five developed countries with rapid aging populations which are Japan, Italy, Portugal, Germany and Finland have been studied for the time span 1973-2018 to substantiate the theoretical findings. According to the World Economic Forum (2019) these five countries have the highest elderly population in the world with significantly more people over the age of 65. For a simple and clear way to measure the impact of elderly population on inflation, this paper has defined elderly people as people aged above 65 years.

LITERATURE REVIEW

In order to analyze the macroeconomic impact of elderly population, it is crucial to explore appropriate policy responses to minimize unwanted distortions. There have been various extensive studies and research which analyzes the impact of demographic transition on the economy. Many studies and research could not give any proper conclusion on the effect of elderly population on price dynamics – Inflation or deflation. Some studies also give ambiguous results. (Bloom and Canning, 2006) argues that there are many researchers and publications who try to find out a correlation between population change and macroeconomic factors, but is inconclusive, whether this correlation exists in the greyer world.

(Shirakawa 2011, 2012, 2013; Anderson et al., 2014) suggest that there is a link between the age structure of the country's population and inflation. McMillan and Baesal (1990) showed positive inflationary impact coming from dependents. Some researchers (Juselius and Takats, 2015) performed a panel data analysis of 22 advanced economies over a period of 1955- 2010 and therefore, came to the conclusion that ageing population impacts the price dynamics, thereby resulting in inflation.

Recently, there are many views that show a correlation between ageing population and deflation. This relation is opposite to what the above views present. This viewpoint focuses more on the demand side effects rather than the supply side of growing population, resulting in deflation. Thus, stating that elderly population leads to change in consumption pattern leading to fall in aggregate demand resulting in low inflation (Anderson et al.,2014; Faik, 2012; Gajewski, 2011; Bullard et. Al, 2012).The former Governor of the Bank of Japan also stated that growing population could impact the price dynamics resulting in a rise in deflationary pressure. Therefore, more research is needed in order to find out the effect of aging on various macroeconomic variables and prices.

GROWING ELDERLY POPULATION

The world is experiencing increase in the ageing population. Simultaneously four processes can be experienced as a result of greying population: demographic transition, slowing population growth, declining working age population and increasing old age dependency ratio (Macura et. Al. 2005; Kotowska and Jozwiak, 2012; Pulina Broniatowka, 2017)

DEMOGRAPHIC TRANSITION

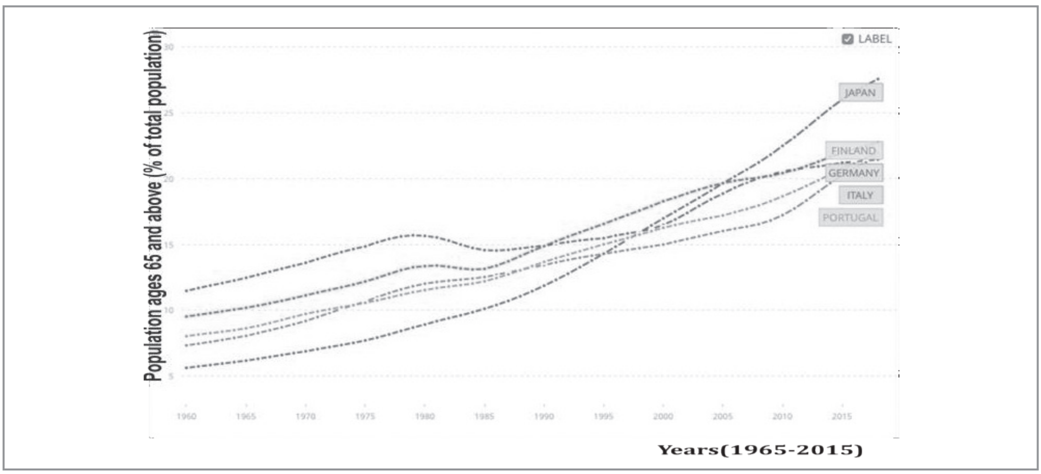
Demographic transition refers to change in population over time. It refers to the change in birth rate and death rate and consequently on the growth rate of population (Chesnais and Jean-Claude, 1992). According to the World Bank Data (2019), Japan, Italy, Portugal, Germany and Finland had experienced a baby boom long back and are currently experiencing an aging population. Factors such as better life standards, better education, better medical facilities, better nutrition intake etc. in the developed nations led to declining fertility rates combined with lower mortality rates and longevity (Oded Galor, 2011; Shyam Ranganathan, Ranjula Bali Swain and David JT Sumpter, 2015). As a result, these nations experienced a demographic transition of a rapidly growing ageing population.

Table-1: Population age 65 and above (% of total population)

Years	Japan	Germany	Finland	Portugal	Italy
1973	14.4	10.2	11.4	7.4	10.2
2018	21.46	21.721	22.752	27.576	21.954

Source: World bank group, 2019

Figure: 1



Source: World bank group, 2019

According to data above, demographic transition – rise in the population over and above the age 65, which is expressed in the form of percentage of total population can be observed in Germany, Finland, Italy, Japan and Portugal.

SLOWING POPULATION GROWTH

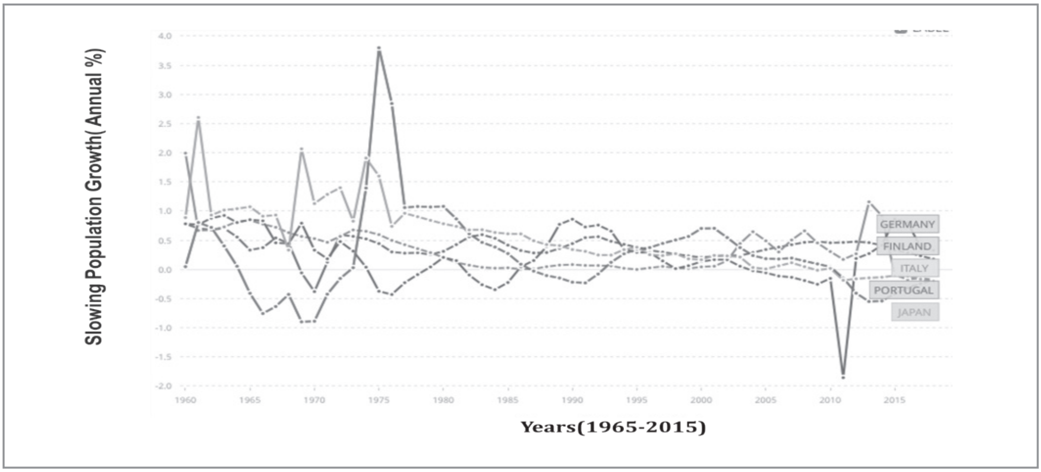
According to the World Economic Forum (2019), these nations in contrast to the developing nations will experience slowing population growth. During the 1960s and 1970s, these countries experienced rapid fall in fertility rates because of contraceptive availability, improved healthcare facilities, sanitation, increasing women workforce and changing attitudes about the status of women (Stephen Enke, 1966; Larry Neal, 1983). Immigration is also one of the factor that influences and slows down the growth of population in a country (Jakub Bijak, Dorota Kupiszewska, Marek Kupiszewski and Katarzyna Saczuk, 2012). As a result, there will be slow population growth.

Table-2 :Slowing population growth (Annual %)

Years	Japan	Germany	Finland	Portugal	Italy
1973	0.3	0.6	0.7	0.8	0
2018	0.327	0.178	-0.174	-0.203	-0.244

Source: World bank group, 2019

Figure: 2



Source: World bank group, 2019

According to data above, slowing population growth rate can be observed in Germany, Finland, Italy, Japan and Portugal.

DECLINING WORKING-AGE POPULATION

Ageing population in nations will lead to decline in the working age population (Mason and Lee, 2011; Walder and Doring, 2012). According to the United Nations Population Aging (2019), the working age population of Germany, Finland, Italy, Japan and Portugal has peaked and will shrink by more than 50% in the next 50 years while the share of their population above 65 will grow by 80%. For instance, by 2050 the working age population would have contracted by 28% in Japan and 23% in Germany.

RISING OLD AGE DEPENDENCY RATIOS

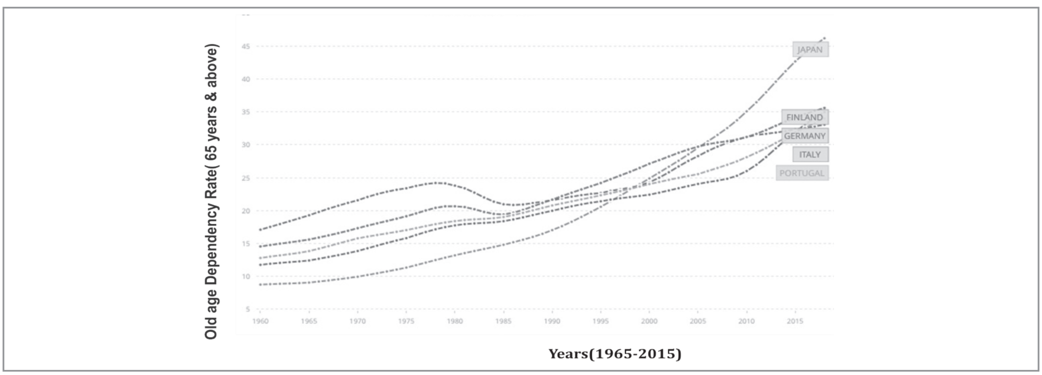
Change in the age structure of the population has an impactful consequence on a country's old age dependency ratio (Albuquerque and Ferreira, 2015). Old age dependency ratio is the measure of the population aged above 65 years as a share of those between 15 to 64 years (The World Bank, 2019). Demographic transition which refers to change in population structure, thereby leads to a rise in old age dependency ratio, which means that the working age population group which remains a smaller portion will be taking care of the old age group of people (Lindh, 2004; Navaneetham and Dharmalingam, 2012).

Table-3: Old age dependency ratio (65 years and above)

Years	Japan	Germany	Finland	Portugal	Italy
1973	22.9	10.8	15.1	18.4	16.5
2018	33.1	46.2	35	35.6	34

Source: World bank group, 2019

Figure: 3



Source: World bank group, 2019

From the above data, increasing old age dependency ratio can be observed in Germany, Finland, Italy, Japan and Portugal.

IMPACT ON PRICE DYNAMICS

International Monetary Fund Report (2004) states demographic transition has an impact on the economic activities of a country. Change in demographics leads to transition that alters saving and investment behaviors, consumption patterns, workforce participation rates, total output, returns to factors of production, price dynamism and other macroeconomic variables (Bloom, D.E., and Canning, D., 2004). However demographic transition is not the sole factor responsible for these changes, the magnitude of these effects depends on various other factors.

Mikael Juselius and Elod Takats (2016), “The age structure-inflation puzzle”, and Mikael Juselius and ElodTakats (2015), “Can demography affect inflation and monetary policy”, argues in their paper that increasing elderly population has an effect on the price dynamics. Price dynamics refers to the situation where prices adjust according to the supply and demand in the economy leading to inflationary and deflationary trends in the economy (George De Menil, 1974; Courchene, 1969; Bodkin, Bond, Reuber and Robinson, 1966)

Even though price dynamism is affected and influenced by monetary policy, yet the most advanced economies have not been able to achieve their target inflation rates despite their ultra-easy monetary policies. Therefore, this gives us a clue that something other than monetary policy also affects price dynamism. One of them is the rising ageing population (Mikael Juselius and ElodTakats, 2016).

Ageing population can influence price dynamics through multiple channels (Yoon, J. W., Kim, J., and J. Lee, 2014). It will alter consumption behavior, saving and investment behavior, human capital, expectations of future economic growth and overall level of output and prices in the economy (Yoon J. W., Kim, J., and J. Lee 2014; Walder and Doring, 2012). These authors say that some of these factors will have an inflationary effect, others deflationary and some might give ambiguous results. So, net effect on prices is not straightforward. Moreover, the magnitude of various effects will depend on various factors such as the relative speed with which aggregate demand and aggregate supply adjusts, labor market conditions, behavioral responses of elderly population etc. N. Renuga Nagarajan, Aurora a.c. Teixeira and Sandra T. Silva, 2006 and Mitsuru Katagiri ,2012 stress on the effect of ageing population on price dynamics through four main factors – human capital change, consumption behavior, saving and investment and economic growth. Thereby, this paper incorporates these four main factors in studying the impact of elderly population on price dynamics – leading to inflation or deflation.

FACTORS AFFECTING PRICE DYNAMICS

1. SAVING PREFERENCE

As the population ageing rises, it will affect the saving patterns of the individual to an extent (Samuelson, 1958; Albuquerque and Lopes, 2010). The saving rate of people will decrease as they grow old because they start spending their saving in old age (Davies and Robert, 2006). This theory is also supported by Masson and Tryon, 1990; Yashiro, 1997; Peterson, 1999, where they argue that when consumption rises, savings rate will decline. As savings falls, scale of investment will fall, resulting in a change in the effective interest rate and affect economic growth.

According to life cycle theory, (Modigliani and Brumberg, 1954; Ando and Modigliani, 1963), population composition has a direct impact on savings. Initially saving rises as working households increase their provision for retirement, then reaches a lifetime peak when the workers are at the middle and at the end of their careers, and ultimately falls as the workers retire and finally begin to dissave. Based on this theory Goodhart and Erfuth, 2014 have predicted that population ageing will cause saving rates to fall. Kuji's(2006), in the econometric analysis found that there is a negative relation between population aging and savings. Therefore, population ageing will lead to fall in savings. Callen et al. (2004) and External Balance Assessment (EBA) methodology by Phillips et al (2013) stress that an ageing population will result in increase in spending in areas like medical, old age pension and long-term care spending, escalating fiscal balance. Bullard et al. (2012), focusing on the interaction among demographics and the redistribution of resources in the economy through the fiscal side, asserts that ageing population will lead to deflation. Therefore, ageing population may lead to decreasing saving preferences leading to deflation.

Table-4: Gross domestic Saving (% of GDP)

Years	Japan	Germany	Finland	Portugal	Italy
1973	39.822	25.645	32.443	24.619	24.261
2018	24.669	27.96	24.576	18.221	20.66

Source: World bank group, 2019

Figure 4: Modigliani et.al, 1963

SOURCE: economicshelp.org

According to data above, there has been a fall in the Gross Domestic Saving (%of GDP).Japan having the highest elderly population shows a fall in Gross Domestic Saving. Similar trends have been noticed for Finland, Portugal and Italy. Contrast to the result, Germany shows a rise in Gross Domestic Saving which tells us that there might be other factors more dominant that effects saving, besides rise in elderly population.

2. EXPECTATION OF ECONOMIC GROWTH

Population ageing will influence economic growth of a country (Lisenkova, 2012; Narciso, 2010; Alders and Broer, 2004). There is a negative relationship between ageing population and economic growth (Narciso, 2010; Bloom, 2010; Lisenkova et a., 2012; Walder and Doring, 2012). Increasing old age population will reduce the country's human capital stock, labor participation and labor productivity (Lisenkova et al., 2012; Narciso, 2010). Therefore, according to these authors, an increase in old age population will decrease the economic growth of a country. According to Phillips curve, lower economic growth will lead to lower demand resulting in lower inflation or deflation (Milton Firedman, 1967; Edmund Phelps, 1968).

Table- 5 :GDP growth (annual %)

Years	Japan	Germany	Finland	Portugal	Italy
1973	8.0	4.8	7.0	11.2	7.1
2018	0.8	1.5	1.67	2.4	0.8

Source: World bank group, 2019

Figure 5

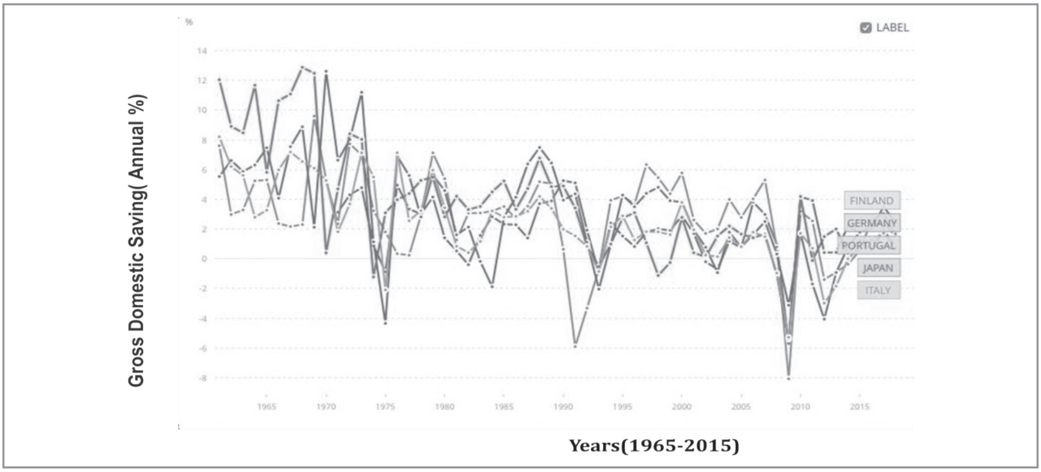
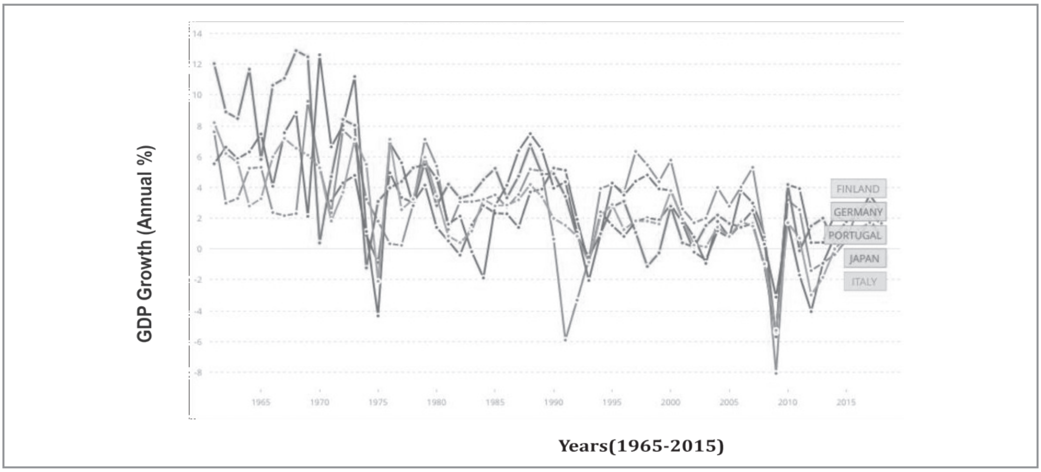


Figure 6



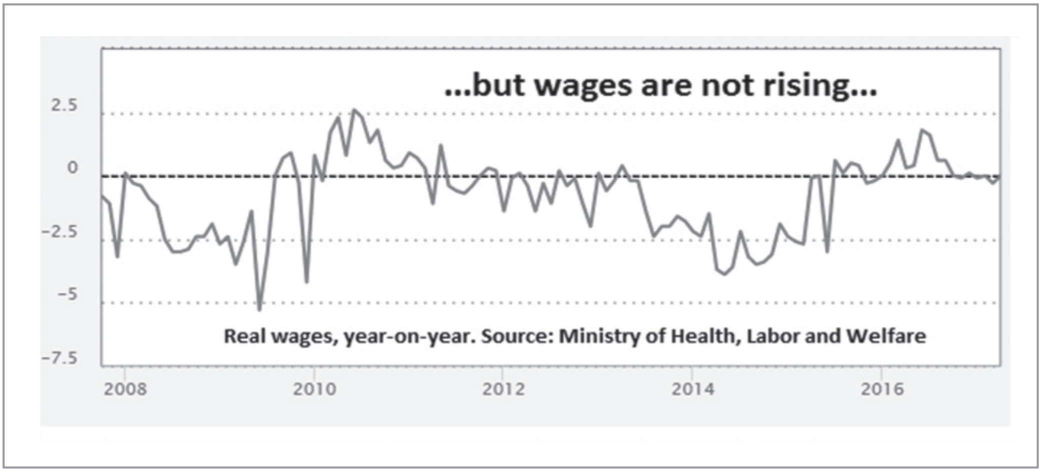
Source: World bank group, 2019

According to data above, there has been a massive fall in the expectation of economic growth in these five countries, which have the highest elderly population rate. Japan, Germany, Finland, Portugal and Italy, all these countries in support of the research show that population ageing to some extent influences expectation of economic growth of the country.

3. HUMAN CAPITAL

Population ageing will influence economic growth of a country (Lisenkova, 2012; Narciso, 2010; Alders and Broer, 2004). As the population ages, economic growth falls – thereby they are said to be negatively effecting each other (Bloom, 2010;Walder and Doring, 2012). Increasing old age population will reduce the country's human capital stock, labor participation and labor productivity (Lisenkova et al., 2012; Narciso, 2010). Therefore, according to these authors, an increase in old age population will decrease the economic growth of a country. According to Phillips curve, lower economic growth will lead to lower demand resulting in lower inflation or deflation (Milton Firedman, 1967; Edmund Phelps, 1968).

Figure 7: (Fall in Real Wages in Japan



Source: Ministry of Health, Labor and Welfare
-Goodhart eal's (2016)

Thus, loss of human capital leading to fall in productivity and reduction in real wage may put downward pressure on inflation resulting in deflation.

4. **CONSUMPTION PATTERN**

The rise in ageing population will lead to change in consumption preferences to some extent (Walder and Doring, 2012; Velarde and Herman, 2014). Several authors argue that per capita income and disposable income will fall with increase in old age population which will lead to net fall in individual's total consumption (Lee and Mason, 2007; Hock and Weil, 2012). Population ageing will influence private consumption of individuals and influence the demand for several goods (Bakshi and Chen, 1994; Walder and Doring, 2012; Merette and George, 2009). As a result of ageing, there will be a different impact on demand for different items.

A country may face reduction in demand for housing, increase in demand for stock markets and higher demand for health services (Merette and George, 2009; Bakshi and Chen, 1994). Bakshi and Chen (1994) says that old age groups will be risk takers as they are already in the later stages of life with lesser responsibilities. They will invest in risky goods. In addition to this, household consumption of non-durable goods may drop and food expenditure may drop among perishable goods (Aguiar, 2011; Aguila, 2011). Authors stress that as people age, they prefer eating home cooked rather than outside leading to fall in their food expenditure. Thus, change in consumption will impact demand for goods which will lead to price dynamics (Jong-Won Yoon, Jinill Kim, and Jungjin Lee, 2014).

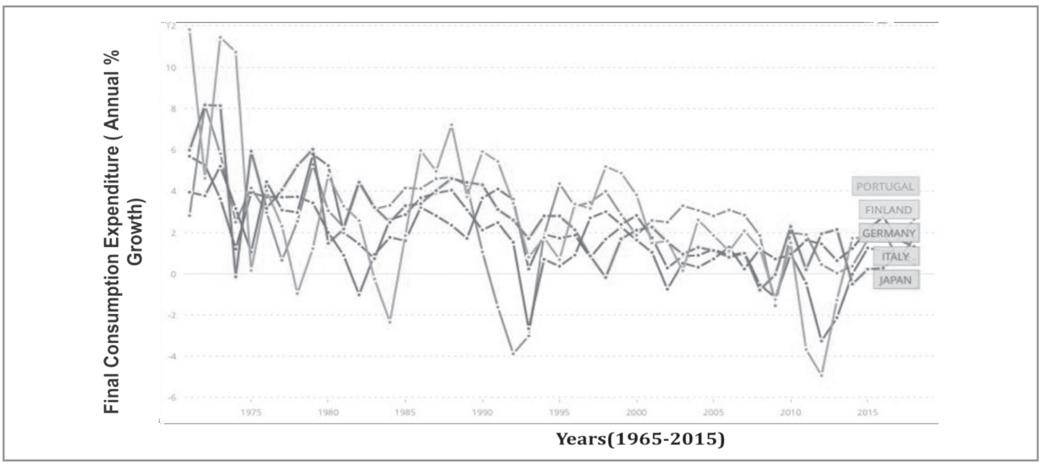
Overall there exists a negative relation between population ageing and consumption (Zhenglong Li and Hong Li, 2014). By constructing an econometrics model, Zhenglong Li and Hong Li showed population ageing will result in a negative influence on consumers and a rise in ageing population reduces consumption. Fall in consumption will lead to reduction in aggregate demand and negative inflation (Jong- Won Yoon, Jinill Kim, and Jungjin Lee, 2014; Christopher J. Waller, 2012).

Table-6: Final consumption expenditure(annual % growth)

Years	Japan	Germany	Finland	Portugal	Italy
1973	8.1	5.2	11.5	3.6	5.8
2018	0.5	0.7	2.6	1.3	1.7

Source: World bank group, 2019

Figure 8



Source: World bank group, 2019

It can be inferred from data above that Japan, Germany, Finland, Portugal and Italy having the highest rise in elderly population shows a fall in the annual consumption expenditure (% growth). According to the literature review, age structure may affect the consumption pattern of individuals resulting in fall in consumption expenditure.

PRICE DYNAMICS: DEFLATION

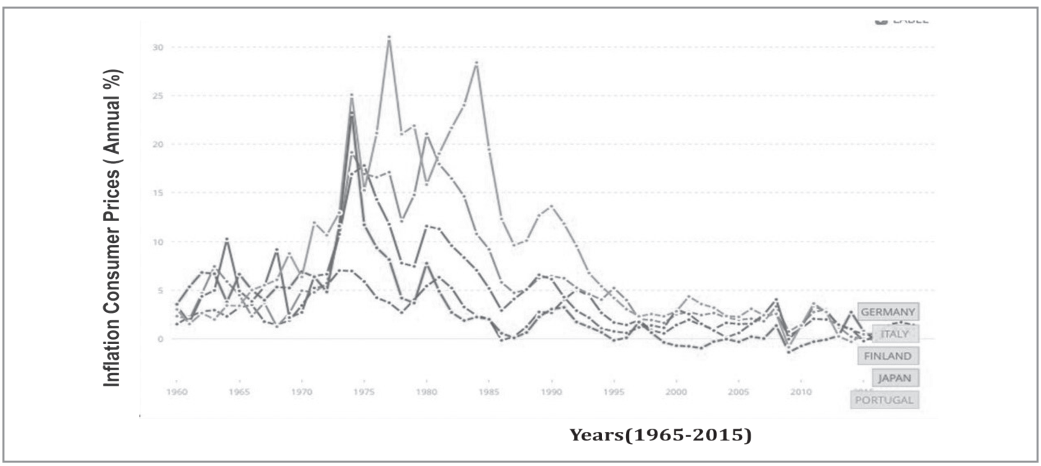
The literature review of the impact of ageing population on consumption pattern, saving preferences, human capital and economic growth shows that the net effect of ageing population may have deflationary trends in a country. It has also been concluded by various other studies. (Barry P. Bosworth, Gary Burtless, and Ralph C. Bryant, 2004; Doug Andrews, Jaideep Oberoi, Tony Wirjanto and Chenggang Zhou, 2018; Paulina Broniatowska, 2019). Therefore, it can be concluded with the help of literature review that ageing population will result in lower inflation or deflation.

Table-7: Inflation, consumer prices (annual %)

Years	Japan	Germany	Finland	Portugal	Italy
1973	11.6	10.8	13	7	10.8
2018	1	1.1	1.1	1.7	1.1

Source: World bank group, 2019

Figure 9



Source: World bank group, 2019

According to data above, there has been a massive fall in the price index in these five countries, which have the highest elderly population rate. Japan, Germany, Finland, Portugal and Italy, in support of the research show that population ageing to some extent influences price dynamics of a country resulting in deflation.

LIMITATIONS:

- This paper takes into consideration only five developed countries for the time span 1973-2018 to verify theoretical findings. The result has been true for these five developed countries, but with the large sample size, the result may vary.
- This paper talks about four main factors on which rise in elderly population have an effect. However, there may be many other factors which may be affected by elderly population.
- The effect of elderly population on price dynamics has taken only four major macroeconomic variables into account. However, there might be price dynamics because of several other factors like cause of ageing (Anderson et al., 2014) and other macroeconomic variables. This paper does not take them into account.
- This paper does not take into account the magnitude of various effects, factors such as how quickly speed aggregate demand adjusts with aggregate supply, labor market conditions, etc.

CONCLUSION

This paper has aimed at reviewing the effects of greying population on the price dynamics corroborating it with data from Japan, Germany, Italy, Finland and Portugal. Through this paper, it can be inferred that the ageing population of a country will influence demographic transition, old age dependency ratios, population growth and working age population. Ageing population will lead to a change in demography, leading to rise in old age dependency ratio, will slow the population growth and also lead to the decline in working age population. These factors will further influence macroeconomic variables such as saving preferences, consumption patterns, human capital and economic growth. As a result, they will influence a country's pricing dynamics by affecting its demand side and supply side factors. From the above explanation, it can be inferred that rate of saving falls with rise in elderly population, expectation of economic growth also falls with the ageing population, human capital declines and lastly, total consumption expenditure also shows a declining trend with the rise in ageing people (65 years and above).Finally through this paper, it can be concluded that ageing population may be deflationary. Thus, the above sample five countries – Japan, Germany, Finland, Italy, and Portugal (according to the data above) shows the fall in the annual percentage of Inflation – thereby, resulting in deflation.

The outcome of this thesis proposes to add to the present-day research ongoing on the relationship between ageing population and price dynamics. It proposes that economies with significant increase in ageing population or expected increase may experience deflationary impact today or in future. Similar to Anderson (2014), Faik (2012), Gajewski (2011) and Bullard (2012), this paper has concluded the relationship between demography and inflation, proposing that the old-age population has a negative impact on price dynamics. This proposition has been concluded by studying the impact of ageing population price dynamics through various macroeconomic variables.

Despite the fact that several papers have studied this relationship, many gaps still prevail in this field. Many papers have proved this result, however, it still lacks string theoretical and empirical consensus. It would be recommended to test and quantify the effects concluded above in the paper in more detail through more research work and models to substantiate the outcome.

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HISTORY OF THE JOURNAL

The idea to launch this Journal was discussed in December 2016 by the former Officiating Principal, **Dr. R. P. Rustagi** with **Dr. Santosh Kumari,** the Editor of the Journal. Since the idea appealed to **Dr. Santosh Kumari**, she took the initiative to contribute to SRCC by creating this new academic research Journal and took the responsibility for its Creation, Registration, License and ISSN (International Standard Serial Number) etc. along with *Editorship*. Therefore, **Dr. Santosh Kumari, Assistant Professor in the Department of Commerce, Shri Ram College of Commerce** was appointed as the Editor of the Journal vide. Office Order – SRCC/AD-158/2017 dated March 14, 2017. She meticulously worked hard in creating the concept and developing the structure of the Journal. She introduced the concept of COPE (Committee On Publication Ethics) to maintain the high academic standards of publication.

On behalf of SRCC, **Dr. Santosh Kumari** made every effort in seeking License from Deputy Commissioner of Police (Licensing), Delhi to register the Journal at "The Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India". The paper work for seeking license started under the former Officiating Principal, **Dr. R.P. Rustagi** on March 27, 2017. The foundation Issue of the Journal "**Strides – A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17**" was successfully released on the 91st Annual Day of SRCC held on April 13, 2017 by **Shri Prakash Javadekar, Honb'le Union Minister of Human Resource Development, Government of India**. The title of the Journal got verified and approved by the Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India on April 21, 2017. On September 1, 2017, **Prof. Simrit Kaur** joined SRCC as Principal and signed each and every legal document required for further processing and supported **Dr. Santosh Kumari**.

On December 18, 2017, the College got the license "**License No. - DCP / LIC No. F. 2 (S / 37) Press / 2017"** to publish 'Strides – A Students' Journal of Shri Ram College of Commerce'. Due to change of Printing Press, the License got updated on March 09, 2018. On April 26, 2018, the SRCC Staff Council unanimously appointed **Dr. Santosh Kumari as the 'Editor of Strides**' for the next two academic years.

On April 27, 2018 (The Foundation Day of the College), **Dr. Santosh Kumari** submitted the application for the registration of the Journal. On May 04, 2018, the SRCC received the '**Certificate of Registration**' for ***"Strides – A Students' Journal of Shri Ram College of Commerce"*** and got the **Registration No. DELENG/2018/75093** dated May 04, 2018. ***On behalf of Shri Ram College of Commerce, it was a moment of pride for Dr. Santosh Kumari to receive the 'Certificate of Registration' on May 04, 2018 at the Office of Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India (website - www.rni.nic.in).***

On May 07, 2018, **Dr. Santosh Kumari** submitted the application for seeking ISSN (International Standard Serial Number) at "ISSN National Centre – India, National Science Library, NISCAIR (National Institute of Science Communication and Information Resources). Weblink - http://nsl.niscair.res.in/ISSNPROCESS/issn.jsp". Finally, the College received the International Standard Serial Number "**ISSN 2581-4931 (Print)**" **on June 01, 2018.**

We are proud that this journal is an add-on to the enriched catalogue of SRCC's publications and academic literature.

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RELEASE OF FOUNDATION ISSUE OF STRIDES

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