

Influence of Capital Markets, Inflation, and Demographics on the Growth of Pension Fund Assets in the State Organization of Islamic Cooperation



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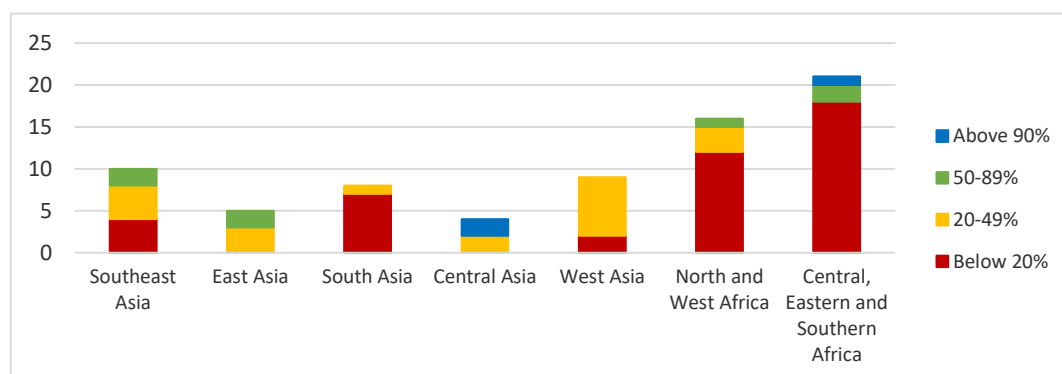
ABSTRACT: The percentage of pension receipts that is still low is experienced by many developing countries in the continent of Asia and Africa in terms of providing pension funds for their citizens. This study seeks to analyze the effect of growth in pension fund assets in OIC member countries. The measurement of the growth of pension fund assets is viewed through the aspects of the number of stock traded, the equity index, the inflation rate, male labor force participation, female labor force participation, the working age, and the retirement age. In addition, this study uses a panel data regression analysis method with the period 2010 to 2019. The results show that there are variables of male labor force participation, female labor force participation, working-age, and retirement age that have a significant effect. Male labor force participation, working-age, and retirement age have a positive effect on the growth of pension fund assets, while female labor force participation has a negative effect on pension fund assets. It can be said that the demographic aspects can influence the growth of pension fund assets in OIC member countries in the period 2010 to 2019.

KEYWORDS: Pension Fund Assets, Stock Traded, Equity Index, Inflation, Male Labor Force, Female Labor Force, Working-Age, Retirement Age

INTRODUCTION

Financial certainty that is guaranteed in old age becomes one of the hopes for every worker. Every worker has a financial motivation that is able to meet the needs of life and lifestyle at a productive age, but after the end of the productive age, the fulfillment of life needs must still be fulfilled. The growth of the non-productive age population at the age of 60 years and above continues to grow every year. The need to prepare anticipation of a non-productive age or old life (retirement) remains financially secure. The majority of people aged 60 and over or who have entered retirement in developing countries still do not participate in a pension plan (ILO, 2014).

Figure 1. The population of retirement age under the law that received pensions in 2010-2015



Source: International Labor Organization (processed data)

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Based on the table above, shows that there is still a lot of pension provision below 89% in countries in the Asian and African continents, even dominated by countries with pension funds provisioning 20% and below. The majority of countries in the Asian and African continents are developing countries, furthermore, in the exposure of the percentage of pension receipts that are still low many experienced by developing countries in the region. Some cases experienced by developing countries are failures to achieve contribution-based pension funds related to employment history and benefits from these dues (Holzmann, 2013; Willmore, 2007).

Ensuring the welfare of old age is the right of all workers, it is in line with the support of each country in implementing the management of pension programs aimed at reducing old-age poverty and the certainty of financial stability in old age. A pension fund in Graham & Dodd theory (1934) s a combination of investments that are reduced debt (liabilities). It can be said that a pension fund is a collection of funds invested with the acquisition of investment returns that can be fulfilled after retirement arrives (Jacobsson & Jacobsson, 2012). The results of research in various countries show that pension fund assets, in general, have an important role in the progress of economic activity, and there is a positive issue with pension funds is the increase in life expectancy in various countries in the last 50 years (Njuguna & Arnolds, 2012; OECD, 2006).

Various factors behind the growth of pension fund assets are evidenced by the positive effect on economic growth in some countries significantly reviewed based on the value of Gross Domestic Product (GDP) (Bijlsma, 2014). In terms of geographical aspects in the Asian region, there is a statistical relationship between the growth of financial markets and capital and the growth of pension fund assets (Hu, 2012). Bajtelsmit (2019) states that some investors often consider the level of risk on this type of portfolio security before investing in a pension fund. It can be said that volatility in the capital market can affect investor funding decisions that impact the amount of pension fund assets themselves.

Gathimba (2017) states that another aspect that determines the growth of pension fund assets is inflation in a country. For retirees, inflation can be alarming because their spending includes more items whose prices always go up. Therefore, an increase in the inflation rate will reduce the real benefits of workers in retirement. Multi-dimensional observations confirm the effects of inflation greatly affecting retirement in the long term (Estrada, 2017). The diversity of different inflation rates in each country can cause differences in the growth of pension assets in each country. Another aspect that also plays an important role in the growth of pension funds is the demographic aspect. Both national and international-scale research found that the demographics of a country both developing and developed countries turned out to affect pension fund investment decisions (Robert Clark, 2004; Tinuke, 2015; Sabri, 2017).

Table 1. Comparison of Growth in Total Assets of Pension Funds

(USD Million)	2010	2012	2014	2016	2018
European Union Countries	3,075,365	3,484,769	3,604,672	3,596,412	4,152,392
OIC Countries	57,041	77,430	94,353	90,075	98,803

Source: OECD and World Bank (processed data)

Departing from figure 2 that has been attached above shows a large gap between pension fund assets in members of the Association of the European Union and members of the Organization of Islamic Cooperation. The accumulation of pension fund assets is too far between the two organizations. Pension contributions to the OIC are still quite small and not all countries strive in the provision and implementation of pension funds to the maximum. It can be said that the growth of pension fund assets in the OIC still needs to be optimized so that the fulfillment of the welfare of its citizens can be fulfilled properly.

This phenomenon is directly experienced by developing countries in the Asian and African regions. In the long term, the cost of government pension plans in Malaysia can be reduced if an increase in the retirement age is carried out (Siri, 2013). While Saudi Arabia is still constrained by a lack of awareness related to the readiness of retirement from employees and companies, which means that the level of retirement financial planning in Saudi Arabia is still low (Diaw, 2017). Another obstacle to developing countries related to pension funds is unfair, unsafe, and weak institutional pension operating schemes that cause economic growth in Nigeria. There is still inequality in pension coverage in Uganda, as well as a poor review of the country's pension sector.

Available research studies on the growth of pension fund assets are limited to Eastern European countries, Latin America, and the Asian region (Nedeljkovic, 2016; Hu, 2012). Other opinions also state that until now research conducted related to pension fund investment decisions is still limited (Weiss-Cohen et al., 2019). The available literature usually only focuses on the country

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of one geographic area reviewed through its short- and long-term effects. There is still no study that focuses on the assets of pension funds of countries that are different geographical areas but in one organizational scope as in the Organization of Islamic Cooperation (OIC), considering the plurality of the background of OIC member countries is expected to grow rapidly in the global economy in the future. Membership of OIC countries consisting of developed and developing countries can be used as an effort to study novelty conducted.

THEORETICAL BACKGROUND

Pension Fund

The meaning of pension funds is a form of management by employers by providing payments to their employees after the end of their working life to give appreciation to their working life (Kieso, 2007). Furthermore, the funds raised are invested on behalf of employees and generate income for employees after retirement (Jacobsson, 2012). The establishment of a pension fund has a clear background and purpose and acts as a container or intermediary for long-term investment finance for the community, companies, and governments (Wahab, 2001).

Through one of the classics, Graham dan Dodd (1934) stated that treating pension funds as a combination of investments (through market value) by minimizing debt or liabilities. In this case, the growth of pension fund assets can be reviewed through market value indicators that are used as investments. The accumulation of pension funds is also determined through a model from Modigliani dan Brumberg (1954) namely the Life Cycle Model which explains that age becomes one of the benchmarks in pension funds. Funding decisions in pension funds are indeed shown for long-term investments with a lot of profit obtained, so it is expected to be able to meet the needs of the retirement age adjusting to inflation in the future.

Capital Market

The definition of capital market is a container of meeting parties who over-fund with parties who lack funds by trading securities (Tandelilin, 2001). It is recommended by Hertrich (2013) that the formation of pension fund investments should be formed diversified from assets that have stable interest and assets that have a dynamic interest. Improved stock value performance can be a factor that stimulates the growth of pension fund assets (Boeri et al., 2006).

The greater the frequency of stocks being traded it can be said that the interest in investing is increasing. One of the reasons why stocks can be used as life or retirement security fund investments is the period of unlimited retirement fund assets in line with stocks that the longer the period will be more profitable (McCrorry, 2003). Based on Goobey's (1956) theory of believing that common stock is a natural place for retirement fund investments, according to Goobey, stocks have higher returns, are protected from inflation, and have long-term income streams. Research conducted by Pearson et al (2019) revealed that most countries adopt the magnitude of the average stock allocation ratio. Such a large stock preference is due to the existence of a favorable stock risk premium in the capital market and adjusts the length of time until retirement arrives.

Broadly speaking, an index is an indicator or measure of something. Changes in the stock price on the stock exchange will be reflected in the change in the value of the equity index (Ardiyana, 2008). A statement by Bernatzi (1995) explained that Myopic loss aversion occurs to investors or customers in investing in stocks by evaluating assets owned on a short-term basis, such distortions can be corrected through pension fund investments in evaluating equity index volatility on a long-term basis. The theory is also supported by another argument explaining that in long-term investments one of them is a pension fund, investors tend to invest strategic assets in risky equities (Campbell, John Y., Luis M. Viceira, 2002). Pension funds are directly able to respond if there is a shock in the stock market. The form of a significant relationship between equity indices and pension funds can be seen if the investment in the stock market is very large then has more risk, and vice versa (Njuguna & Arnolds, 2012)

Inflation

The meaning of inflation can be interpreted to indicate that the overall price and goods levels in the economy have continued to increase for some time (Korkmaz, 2007). Siegmann (2015) argues that inflation is a source of risk that pension funds must face in managing benefits. Pension benefit receipts are adjusted for the extent to which the inflation rate can be managed properly. Through the model stated by Friedman (1977) and Modigliani (1966) that one of the macroeconomic benchmarks is inflation to determine individuals or investors in decision making to invest funds owned long-term (pension funds). This statement is reinforced by the theory of McLeod (1964) who stated that people's wealth can decrease rapidly when inflation increases. Furthermore, in the long term, the presence of inflation is very influential on pension funds (Arturo et al., 2017). Research by Fashagba (2016) found that retirement fund benefits have significant negative problems stemming from inflation rates.

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Demographics

Another demographic definition is the study of the number, region, distribution, and composition of the population caused by birth, death, displacement, and social mobility (Lieberson, 1959). The basis of the theory used as an excuse in containing demographic aspects in this study includes the Life-Cycle Hypothesis theory model or Life-Cycle Model which is known as the most dominant benchmark in the review of pension fund investments (Ando & Modigliani, 1963). This is based on an early empirical study exploring gender differences in investing conducted by Estes dan Hosseini (1988). Indirectly demographic factors can influence the growth of pension funds and have the opportunity to have a relationship between the two.

Gender can be defined as the difference in behavior between men and women constructed in society, which means that it is not a natural difference or god's rule but rather caused by human (male and female) through a long social and cultural process (Oakley, 2016). Gender differences in the study were reviewed through labor force participation rates. Through a theory by Magenheim (1993) which states that the male working force has more capacity in the aspect of ownership of pension assets, high participation rates and higher dues rates. Furthermore, there is a theory that women are more likely to save because of longer life expectancy than men, it can be said that retirement wealth should support a longer life (Bajtelmit V. L., 1999; Jelinek, 1998). Based research by Nolan (2019) explained that gender differences can affect pension funds have a positive relationship.

Furthermore, the age aspect of this study can be interpreted as the survival of a person expressed in units of time, arranged in chronological order, and has the same degree of anatomical and physiological development (Nuswantari, 1998). The age classification in the study was divided into two categories. First, the working-age of the population aged 15 to 64 years or several residents who can produce goods and services (Mulyadi, 2006). Younger ages have higher equity exposure to pension funds, and more mature-age members of retirement funds have a higher proportion of fixed income instruments (Alestalo & Puttonen, 2006). Second, the retirement age group that can be an indicator in retirement fund assets is reviewed through the amount of the pension payment. Through the theory that marginal utility consumption of the "elderly" (over 65 years) is decreasing but coupled with the allocation of wealth owned in financial and health investments (Börsch-Supan & Stahl, 1991). Another study found that retirees who had excess funds preferred to delay benefit annuities in hopes of gaining more in older age (Dus et al., 2005).

RESEARCH METHODS

This research uses a type of quantitative research that seeks to take measurements of the influence between available variables on research with data sources obtained through secondary data. The use of secondary data in this study is countries that have data on pension fund assets, countries that have data on the number of stocks traded, equity indexes, inflation, male and female labor force participation data, working-age data, and pension age data. The use of data sources obtained from various official institutions that publish data according to research needs is followed up in research objects whose data is available in full from 2010 to 2019. Through the results of observations that have been done, the number of countries that are considered able to meet the sample standards needed in this study is as many as 8 countries.

The study used secondary data in the form of cross-section and time-series data. After the data is obtained, the data processing analysis is then carried out using the panel data regression model. This approach, which is a quantitative technique, includes tables and the test of the hypotheses formulated by using ordinary least square regression analysis at 5% level of significance. The data was analyzed using data regression analysis panel technique with the formula of regression equation as follows:

$$PFA = \alpha + \beta_1ST_{it} + \beta_2EQU_{it} + \beta_3INF_{it} + \beta_4MAN_{it} + \beta_5WMN_{it} + \beta_6WORK_{it} + \beta_7PNS_{it} + e$$

The method of estimating the regression model using panel data can be done through three approaches, including the Common Effect Model (CEM), Fixed Effect Model (FEM), or Random Effect Model (REM). From the three regression models to estimate panel data, there will appear the best model to be analyzed. The selection of the best model among three was conducted using several tests. Chow test is used to find out the best model between Common Effect Model and Fixed Effect Model. Furthermore, there is the Hausman test to find out the selection of models between the Fixed Effect Model and the Random Effect Model, while the last test is the Lagrange multiplier (LM) test aiming to choose between Common Effect Model and Random Effect Model.

RESULT AND DISCUSSION

Descriptive Analysis

The presence of descriptive analysis aims to describe data in research variables by observing the results of data that has been done (Ghozali, 2016). To facilitate in doing descriptions, this study presented a descriptive table that covers some aspects as follows.

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Table 2. Descriptive Statistics

	PFA	ST	EQUI	INF	MAN	WMN	WORK	PENS
Mean	3.001625	14.01419	-0.168903	7.245901	73.46963	38.15763	61.56205	5.471887
Median	1.7595	6.577397	-0.980183	6.987613	75.845	38.885	62.48275	5.370004
Maximum	16.5	51.90026	80.2537	22.93255	83.87	65.54	69.80281	8.726284
Minimum	0.009	0.173841	-49.14383	0.063606	58.21	13.86	44.64646	2.735548
Std. Dev.	4.232709	16.32086	26.32477	4.991506	7.155285	17.06839	6.697795	1.511505
Sum	240.13	1121.135	-13.5122	579.6721	5877.57	3052.61	4924.964	437.751
Observations	80	80	80	80	80	80	80	80

Source: processed data

Table 3. Static Panel Data Regression Test Results

Variable	Common	Fixed	Random
C	0.0009 (11.84354)	0.0000 (-26.5369)	0.0000 (11.84354)
ST	0.0000** (-0.09969)	0.3192 (0.020973)	0.0000** (-0.099694)
Equi	0.5058 (0.004879)	0.4992 (0.001935)	0.0884 (0.004879)
Inf	0.0773 (0.077994)	0.2230 (0.029561)	0.0000** (0.077994)
Man	0.0007** (-0.10741)	0.0059** (0.252903)	0.0000** (-0.107409)
Wmn	0.0000** (0.130147)	0.0000** (-0.40105)	0.0000** (0.130147)
Work	0.0001** (-0.20923)	0.0000** (0.256368)	0.0000** (-0.209225)
Pens	0.0000** (1.422645)	0.0000** (1.82135)	0.0000** (1.422645)
R-Squared	0.856821	0.980625	0.856821
Prob (F-statistics)	0.000000	0.000000	0.000000

Source: processed data

Reviewed through the CEM approach carried out, it can be said that simultaneously all the variables in this study have a significant effect. It was found that of the seven independent variables, five variables were significantly affected. Observations with the Fixed Effect Model (FEM) show that four variables can affect the growth of pension assets, namely male labor force participation, women's labor force participation, working-age, and retirement age. Based on the observations made in the Random Effect Model (REM) table above, it is known that simultaneously all independent variables are still able to affect dependent variables. There are 6 independent variables: trading stock variables, inflation, male labor force participation, women's labor force participation, working-age, and retirement age.

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Table 4. Chow and Hausman Test Results

	Statistic	Prob.
Chow Test	59.335773	0.0000
Hausman Test	415.350412	0.0000

Source: processed data

Researchers have carried out the Chow test and the Hausman test as conditions in the selection of the best model of panel data. Based on the results of these tests, this study is recommended to use the Fixed Effect Model (FEM). The results of this test are intended as part of the data analysis stage. The results of FEM as the best model of panel data are presented in the table below.

Table 5. Fixed Effect Model as The Best Model

Variable	Coefficient	t-Statistic	Prob.
C	-26.53693	-5.131959	0.0000
ST	0.020973	0.863180	0.3912
EQUI	0.001935	0.679524	0.4992
INF	0.029561	1.230421	0.2230
MAN	0.252903	2.844215	0.0059
WMN	-0.401052	-5.664177	0.0000
WORK	0.256368	5.908705	0.0000
PENS	1.821350	5.438445	0.0000
Fixed Effects (Cross)			
Indonesia	0.683065		
Pakistan	-8.210906		
Nigeria	17.67933		
Mesir	-7.074442		
Turki	-9.712042		
Malaysia	-2.416446		
Kazakhstan	20.23008		
Yordania	-11.17864		
R-squared	0.980625		
Adj. R-squared	0.976452		
F-statistic	229.9917		
Prob(F-statistic)	0.000000		

Source: processed data

It can be known that the value (Prob > Chi2) = 0.00000. So it can be concluded that all independent variables used in this study are simultaneously able to affect dependent variables. The growth of pension fund assets can decrease or increase can be influenced by several factors contained in this study.

DISCUSSION

During the study period from 2010 to 2019, there were several independent variables that had a significant influence and had no significant effect. Through the test obtained variables of male labor force participation, women's labor force participation, working-age, and retirement age that have a significant influence on pension fund assets in OIC member countries. Other variables such as the number of stocks traded, equity indices, and inflation rates were found to have no significant effect on pension fund assets in OIC member countries.

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This test proved that the variable number of stocks traded was positively correlated insignificantly to the growth of pension fund assets in OIC member states, so it could not prove the initial hypothesis or hypothesis was rejected. The existence of a theory that supports the insignificant number of stock traded, namely changes in price and frequency of the number of stock traded is not much cared for by investors (Wei et al., 2004). Some previous studies that support the findings of this study show that the number of shares has no significant effect. Through research conducted by Verma (2018) due to the effect of disposition. This disposition effect determines the decision-making of pension fund allocation after the event of the financial crisis by moving their retirement fund assets to a safer investment. It can be said that in minimizing the risk of greater losses after the financial crisis, many investors move the current year assets they own. In line with the findings in this study that the majority of millennials tend to invest less than 40 percent of their retirement savings into stock instruments (Sharf, 2014). The number of investment options from various instruments that can be selected according to one's needs leads to a diversity of investment orientations. Each individual's different preferences make stocks not a top priority in long-term investment intrusion for a particular group of people. Previous research has also shown that millennials are principled if stocks have high risks, less impact on the economy, and there is still anxiety of an economic recession in the future (Debevec et al., 2013; Larson et al., 2016). It can be said that each generation tries to avoid allocating funds that they have invested in investments that are at risk one of them in stocks.

The findings obtained are in line with the theory in this study that the equity index has a positive effect. However, the insignificant influence contradicts the findings of previous studies that stated equity indices have a significant effect on pension funds. The insignificant of equity indices can be based on the theory of Abu-Sharia (2005) that the emerging market is still underdeveloped and plays a small role in corporate finance and investment activity. In recent years it has been recognized that the demand for pension funds is on the rise in developing countries, but pension fund assets when measured through the number of stock and bank deposits are still less than developed countries that have a large pension fund industry (Yow, 2010). This argument is also supported by research by Draženović & Kusanović (2016) which found that the lack of pension fund investment is due to low investment culture and domestic savings. Equity indices in developing countries are still predominantly used as short-term investments (trading) only, so it still rules out capital market priorities as long-term investment instruments. In addition, the financial literacy of people in developing countries that are still low compared to developed countries so that fluctuations in equity indexes do not greatly affect the decision-making of pension fund investments allocated to the capital market. This can be an indication of the insignificant equity index to the assets of pension funds.

The test results proved that inflation was insignificant to the growth of pension fund assets in OIC member countries, so it could not prove the initial hypothesis or the hypothesis was rejected. The finding of positive correlation is based also on a theory by Blanchard dan Kiyotaki (1987) which states that companies still need investment and have received investment despite producing when prices continue to increase. Contrary to the findings with existing hypotheses, there is a rational alibi that inflation uncertainty helps produce a positive long-term investment savings response (Wachtel, 1977). It is suspected that in the observation period over the last 10 years, inflation in some countries fluctuates or increases, but individual decisions in investing in pension funds continue to grow. The cause is the expectation of public optimism about long-term pension funds is expected to provide more benefits in the future, and the rate of inflation fluctuations in the long term does not continue to increase drastically so that inflation is not a factor that dampens the decision to invest in pension funds.

The significant influence of the male labor force as one of the determinants of dependent variables is evidenced by the probability value of 0.006 or less than $\alpha = 0.05$. It can be proven that the participation factor of the male labor force contributes as a determinant of the growth of pension fund assets. In some aspects, the economy experiences more benefits for a man. One of them by having a high income, education, and work history significantly affect the feasibility of retirement plans (Lee, Y. D., Hassan, M. K., & Lawrence, 2018; Lee & Lawrence, 2016; Shaw & Waite, 2015). In some countries, the dominant percentage of male labor force participation benefits greatly from pension fund investments. This is because there is still a frequent gender gap between men and women from various aspects of society. The majority of the male workforce gets many benefits and advantages that refer to the certainty of retirement benefit welfare rather than women. The percentage of men in all aspects of work and income is always higher than women, and the inequality of the majority of male workers is more pronounced in the Asia Pacific region (Huang & Curtin, 2019).

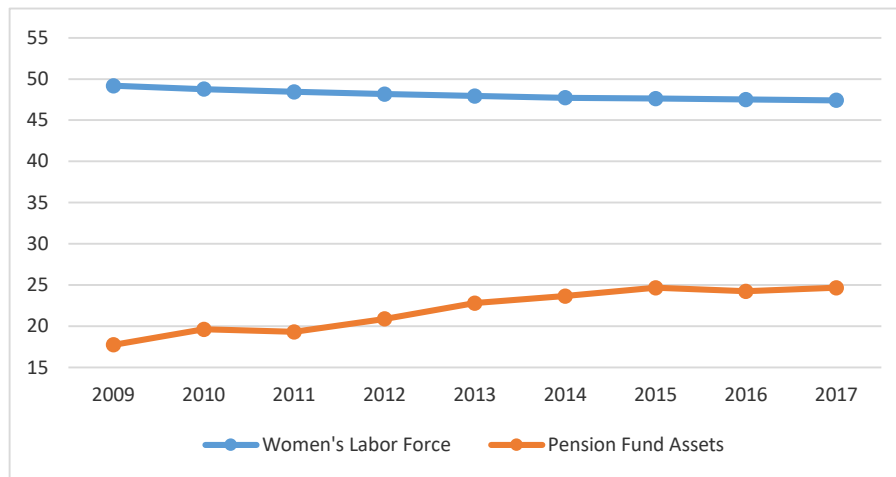
Women's labor force participation has an inverse or negative relationship with pension assets. Contrary to the findings with the existing hypothesis has rational reasons that gender differences determine retirement priorities based on one's career choices (Cahill et al., 2015; Hayhoe et al., 2000). On a variety of cultural backgrounds, older women always have fewer economic resources than older men (Ellickson, 1988). Based on this phenomenon, it can be interpreted that the majority of female

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workers in adulthood begin to reduce or even quit their jobs. This is because their priority towards a career is reduced and prioritizes post-marriage life such as raising children and others. So that with the reduced number of women's labor force participation is not able to reduce the growth of pension fund assets.

Figure 2. Women's Labor Force Participation

In percent (%)



Source: ILOStat & World Bank Database (processed data)

Based on research conducted by the International Labor Organization (ILO) and also the World Bank, at the time of entering working age, the proportion of women is not only lower than the proportion of men but also shows a decrease in the participation rate of the female labor force. In the life cycle, women tend to stop working during childbirth and raising their children and return to economic activity as they get older. The decrease in the female labor force rate was not accompanied by a decrease in pension fund assets in general. The high consumption behavior of women and the increasing number of divorces in various regions will be increasingly risky for their financial condition. Too focused on meeting the needs of themselves and their family often causes women to pay less attention to meeting their retirement needs. Another finding is a warning for women, especially those who are single if they are unable to take advantage of the various investment instruments available, with lower-income conditions and have a longer lifespan, they may experience financial difficulties in retirement (Lei, 2019).

Working-age factors can have a significant effect due to obtaining the results of panel data testing with a probability value of 0.000 or can be called less than $\alpha = 0.05$. The results of the tests conducted are in line with research conducted by Irjayanti (2017) which states that when a person is still in productive age or working until he has a family, a person will prioritize buying other assets or products at a later date as a form of anticipation until entering retirement age. Towards retirement, the orientation of working-age individuals thinks more about how the opinions obtained can be more yielding in old age or retirement (Situmorang, 2014). Tertiary needs that are less economically valuable are already less prioritized in this phase. Working-age has the greatest opportunity to invest long-term in a retirement fund. These aspects can be reviewed through education level, workability, working period, tenure, period, and financial literacy which can all be attributed to participation in contributing to the growth of pension fund assets. In addition, some OIC member states have a large number of working-age populations coupled with demographic bonuses that are and will be experienced in the future.

Through tests of panel data it has been found that variable retirement age has a significant effect on pension fund assets in member states with the period 2010 to 2019. Stable financial conditions in the life of the elderly can be met by having a pension fund. Stable financial condition is also a benchmark that an elderly person has a better quality of life (Kiik et al., 2018) Other disclosures about the age factor have a large correlation affecting pension funds by Mansor (2017) indeed for some formal workers, the age factor becomes important in the benchmark of retirement fund investments due to the regulations that have been set to their retirement age. Informal groups of workers have age flexibility that adjusts the limits of their physical ability to work. So many informal workers have a longer chance to save investments, one of which is in a pension fund. The development of a country from year to year indirectly increases the life expectancy of its citizens. From this phenomenon, it can be concluded

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that the increasing life expectancy of an individual can increase the pension fund, due to the longer the period carried out in investing.

CONCLUSION

1. The number of stock traded had a positive but insignificant effect on the assets of pension funds in OIC member countries in the period 2010 to 2019. The number of choices of retirement investment instruments other than stocks adjusts the needs of each individual in minimizing risk.
2. Equity index factors have a positive but significant effect on the assets of pension funds in OIC member countries. The need to improve financial literacy and investment culture in communities in developing OIC member countries.
3. The inflation rate has a positive effect on the growth of pension fund assets but not significantly. The impact is that investors tend to shift pension fund investments to sectors that are not prone to inflation.
4. Male labor force participation factors contribute positively as determinants of pension fund asset growth. There is still a rampant gender gap between men and women from various aspects of society so that the majority of the male workforce gets many benefits and advantages one of which is on the certainty of pension welfare.
5. Women's labor force participation factors negatively and insignificantly affect pension fund assets in OIC member countries from 2010 to 2019. Indications that there is still a frequent gender gap, high divorce rates, and consumptive behavior of women who are vulnerable to financial difficulties in retirement.
6. Working-age factors contribute positively and significantly to pension fund assets in OIC member countries. Working-age has the greatest opportunity to invest long-term in pension funds, reviewed through education level, ability to work, working period, tenure, period, and financial literacy that can contribute to the growth of pension assets.
7. The retirement age factor contributes positively and significantly to the assets of pension funds in OIC member countries. The impact is that the increasing life expectancy of an individual can provide a longer period in investing such as in pension funds.

SUGGESTION

Suggestions in further research by adding OIC member states objects, research periods, other indicators of pension fund assets, and better data processing as a form of the novelty of future research.

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