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Role of Pension Funds in Financial Intermediation

Ondabu Ibrahim Tirimba

Finance and Economics Department, PhD Candidate Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya

Abstract This paper aimed at discussing the various roles that pensions play in financial intermediation. Descriptive research design was adopted with the population being all the available literature on the online web as pertaining pension funds and also financial intermediation. Using key word characters, the search initially identified 50 journals and after a tentative scrutiny, 37 journals were selected in a random sampling manner in order to give the birth of this discussion paper. The key objective of this article was to discuss the role of pension funds in financial intermediation. Among the roles identified in this paper were; provision of a mechanism for pooling of funds and subdivision of shares, provision of ways to transfer economic resources, provision of ways to manage uncertainty and control risk, provision of ways to manage uncertainty and control risk, provision of pricing information and the provision of ways to deal with incentive problems. This paper provides practical insights into the roles of pension in financial intermediation and thus highlighting the key importance of such pension funds into the success of any economy. This paper is one of the very first to recognize the key roles that pension funds play in the 21st century.

Keywords Intermediary, Financial Intermediary, Roles of pension in financial intermediation, Pension Funds

1. Introduction

1.1. Financial Intermediaries

The term financial intermediary may refer to an institution, firm or individual who performs intermediation between two or more parties in a financial context. Typically the first party is a provider of a product or service and the second party is a consumer or customer of that product or service. Financial intermediaries can be categorized into the following types: Banks, Building Societies; Credit Unions; Financial advisers or brokers; Insurance Companies; Life Insurance Companies; Mutual Funds and Pension Funds. The focus of this paper shall be on pension funds and their role in financial intermediation.

Pension funds may be defined as forms of institutional investor, which collect pool and invest funds contributed by sponsors and beneficiaries to provide for the future pension entitlements of beneficiaries.

The growth of pension funds has emerged as a pioneer intermediary that is capable of controlling the country's GDP.

Dovi[1] documents that between 1998 and 2007 the savings increased from 17.8% to 22.1% of the GDP in Sub-Saharan Africa and from 21% to 30% of the GDP in Northern Africa as a result of embracement of the funded pension systems.

* Corresponding author:
tirimba5@gmail.com (Ondabu Ibrahim Tirimba)
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Defined contribution plans have tended to grow faster than defined benefit in recent years, as employers have sought to minimize the risk of their obligations, while employees seek funds that are readily transferable between employers.

The financial institutions may be regulated by various regulatory authorities, or may be required to disclose the qualifications of the person to potential clients. In addition, regulatory authorities may impose specific standards of conduct requirements on financial intermediaries when providing services to investors.

1.2. Distinguishing Characteristics of Pension Funds

Risk pooling for small investors, by this they provide a better trade-off of risk and return than for direct holdings;

a) Premium on diversification, both by holding a spread of domestic securities (which may be both debt and equity) and also by international investment;

b) Preference for liquidity, and hence for large and liquid capital markets, which trade standard or 'commoditized' instruments;

c) Ability to absorb and process information, superior to that of individual investors in the capital market;

d) Large size and thus economies of scale, which result in lower average costs for investors;

e) Countervailing power which may be used to reduce transactions costs and custodial fees.

Steward and Yermo[2] posits that the pension funds have reduced the poverty trap ratio by 13% in South Africa and increased the income of the poorest 5% by 50%.

Drawing on the extensive existing literature on pension economics, pension funds' efficiency is an important factor underlying their rise to prominence[1].

Besley and Prat[26] documented the application of the agency theory in private pension fund governance. Hess and Impavido[5] argued its application in the public pension system. Ambachtsheer, Capelle and Lum,[6]; Dias[7]; Clapman et al,[8]; Rusconi[11]; Stewart and Yermo[2] on the other hand have focused on the inadequacies of pension governance.

Financial intermediaries position themselves as agents ("middlemen") between savers and investors, alleviating information asymmetries against transaction costs to a level where total savings are absorbed by real investments at equilibrium real interest rates.

But in the real world, financial intermediaries do not consider themselves agents who intermediate between savers and investors by procuring information on investors to savers and by selecting and monitoring investors on behalf of savers. That is not their job. They deal in money and in risk, not in information per se. Information production predominantly is a means to the end of risk management. In the real world, borrowers, lenders, savers, investors and financial supervisors look at them in the same way, i.e. risk managers instead of information producers.

Financial intermediaries deal in financial services, created by themselves, mostly for their own account, via their balance sheet, so for their own risk.

They attract savings from the saver and lend it to the investor, adding value by meeting the specific needs of savers and investors at prices that equilibrate the supply and demand of money.

This is a creative process, which cannot be characterized by the reduction of information asymmetries. In the intermediation process the financial intermediary transforms savings, given the preferences of the saver with respect to liquidity and risk, into investments according to the needs and the risk profile of the investor.

In Kenya, pension funds contributes to an estimated 68% of the total income of retirees (Kakwani et al,[14] and RBA[15] argues that these funds control wealth estimated at Kshs. 397 billion, the equivalent of 30% of the country's GDP.

This study contributes to the knowledge on the role of pension funds by investigating the critical contributions that form the roles that pension does in financial intermediation.

2. Literature Review

2.1. Theoretical Review

2.1.1. Introduction

Pension saving is generally treated more favourably than other institutional saving, thus leading to greater flows of saving being directed through this channel. It is clear that such fiscal provisions boost the demand for saving via pension funds. Moreover, growth of pension funds is also typically dependent on the generosity of public social security pensions

Particularly for defined benefit funds, there are further aspects of the relation between the fund and the corporate sponsor which encourage firms to set up pension funds. The corporate finance perspective sees defined benefit pension fund liabilities as corporate debt, with members having a claim on the firm similar to other creditors, and fund investments as corporate assets which collateralize the pension obligation.

The above mentioned tax exemption of contributions and asset returns are special features distinguishing pension from other such reserves in most countries and making funding attractive to firms as well as individuals. Corporations can be expected to manage pension funding and investment to maximize benefit to shareholders. Besides tax exemption, attractions of funding to the firm include the fact that sponsors may in certain circumstances use surplus assets as a contingency reserve.

2.1.2. Traditional Theory of Intermediation

The existence of financial intermediaries must to be justified in economic terms because in the Arrow-Debreu world, the financing of firms and governments by households occurs via financial markets in a frictionless manner - there are no transactions costs - which leaves no role for financial intermediaries. There are no transactions costs and the market has got a perfect competition in which all can participate.

Fama[12] asserted that the allocation of resources is Pareto optimal and there is no role for intermediaries to add value. In addition, (employing Modigliani-Miller), financial structure is irrelevant as in a world such as that described; households can construct portfolios which offset the actions of an intermediary and intermediation cannot add any value.

Allen and Santomero[13] have noted that the traditional theory of financial intermediation is focused on the real-world market features of transactions costs and asymmetric information. These are central to the activity of banks and insurance firms.

The transactions costs ideology first developed in the context of the theory of the firm by Coase[15], was introduced as a key form of friction in financial markets by Gurley and Shaw[18]. Economies of scale which benefit intermediaries result from indivisibilities and no convexities in transactions technology which restrict diversification and risk sharing under direct financing. Examples include fixed costs of evaluating assets, and declining average trading costs which mean intermediaries may diversify more cheaply than individuals.

Diamond and Dybvig[16] argues that the "liquidity insurance" banks provide financial services to depositors and borrowers (whereby deposits can be cashed on demand while banks' assets are mainly long-term and illiquid) and also results from scale economies in risk pooling.

The existence of asymmetries of information between borrowers and lenders gives rise to difficulties in screening the quality of entrepreneurs and firms to avoid adverse selection, Leland and Pyle[21] and monitoring their performance to minimize moral hazard, Diamond[19].

Leland and Pyle[17] suggested that intermediaries can communicate proprietary information at lower cost than borrowers, and then sell claims to diversified portfolios of these assets to investors.

Diamond suggests that financial intermediaries act as delegated monitors to overcome asymmetric information, whereby diversification reduces monitoring costs. A corollary is that market finance is only available to borrowers with a reputation[19].

Developing from these, theories of control also highlight the incompleteness of loan contracts and suggest that intermediaries are better able to influence the behaviour of borrowers while a loan is outstanding and seize assets or restructure in the case of default than markets, Bolton[4].

Alternatively, following the "relationship banking" tradition, commitment theories of intermediation, financial institutions can form long-term relationships with borrowers, which reduce information asymmetry and hence moral hazard[1].

Apart from economies of scale (which as noted by Goodhart[20] apply equally to institutional investors) these considerations have arisen in the literature mainly for debt finance and for banks. Whereas the importance of information asymmetries and incomplete contracts is equally recognized for equity finance, the role of financial institutions as counterparts is less well developed. Equally, institutional investors such as pension funds may not rely on the same information and control mechanisms as banks.

2.2. Empirical Review

2.2.1. Provision of a Mechanism for Pooling of Funds and Subdivision of Shares

Pooling and diversification is a fundamental characteristic of pension funds, given their size and consequent economies of scale In this context, one may note the mutually reinforcing development of securitization of individual assets (such as loans), which has provided a ready supply of assets in which pension funds may invest instead of banks holding them on their balance sheets. In addition, participation costs to market activity may also be of major importance in determining the demand for services of pension funds, Davis[23].

The traditional theory of pooling suggests that transactions costs in securities markets, including the bid-ask spread and "minimum size investment barriers", make it difficult for households of average means to diversify via direct securities holdings. Meanwhile, risk incurred if diversification is insufficient is not compensated by higher return, because such risk is diversifiable to the market as a whole[5]. Historically, this either meant that individuals took excessive risks or were obliged to hold lower-yielding assets such as bank deposits.

The idea of participation costs complements that of transactions costs, and helps explain why pension funds have continued to grow even as transactions costs have come down. The basic idea is that there is a fixed cost to learning about a company, and also an ongoing cost to being active in the market and remaining up-to-date, which may discourage individuals from holding sufficient shares for adequate diversification. Furthermore, the skills needed to undertake risk management may be too costly for individuals to acquire, Allen and Santomero[13].

Pension funds reduce the cost of transacting by negotiating lower transactions costs and custodial fees Professional asset management costs are shared among many households and are markedly reduced as a consequence. The direct participation costs to households of acquiring information and knowledge needed to invest in a range of assets, as well as in undertaking complex risk trading and risk management are reduced (although costs of monitoring the asset manager remain). The net effect is that individuals are likely to switch to pension funds from direct holdings of securities and from bank deposits[23].

2.2.2. Provision of Ways to Transfer Economic Resources

The basic raison d'être of pension funds arises in the context of resource transfer over time. This function does not typically entail maturity transformation, as pension funds have matched assets and liabilities.

Pensions saving will tend to boost their overall saving particularly markedly[1].

Abstracting from the likely increase in saving and wealth, the growth of pension funds affects financing patterns owing to differences in behaviour from the personal sector that would otherwise hold assets directly, in pursuit of transfers across time.

Portfolios of pension funds vary widely, but in cases they hold a greater proportion of capital uncertain and long term assets than households, while households have a much larger proportion of liquid assets. These differences can be explained partly by time horizons. Also as noted pension funds compensate for the increased risk, by pooling at a lower cost across assets whose returns are imperfectly correlated. The implication is that pension funds increase the supply of long term funds to capital markets, and reduce bank deposits, even abstracting from changes in aggregate saving, so long as households do not increase the liquidity of the remainder of their portfolios fully to offset growth of pension assets.

As regards transfer across space, one may highlight the increased internationalization of portfolio investment by pension funds. This has supplanted the bank-driven flows which were typical of the 1970s. Besides the growth of pension funds per se, this pattern has been facilitated by easing of portfolio regulations and abolition of exchange controls as well as persistent saving/investment imbalances

between countries (notably the US and Japan).

As in domestic markets, pension funds benefit from superior ability to handle information and lower average trading costs relative to individuals in carrying out such investment.

The possibility of international investment improves diversification relative to solely domestic portfolio investment which would leave pensions dependent on the performance of the domestic economy. Crucially, to the extent national trade cycles are not correlated and shocks to equity markets tend to be country specific, the investment of part of the portfolio in other markets can reduce systematic risk for the same return. In the medium term, the profit share in national economies may move differentially, which implies that international investment hedges the risk of a decline in domestic profit share and hence in equity values[23].

2.2.3. Provision of Ways to Manage Uncertainty and Control Risk

As institutional investors, pension funds are well-placed to use derivatives and other means of risk control; many innovations have been introduced or developed specifically to cater for their demand, Bodie[24].

On the liability side, Bodie has formalized pension funds' function as a form of retirement income insurance. Insurance can be provided against an inadequate replacement rate, social security cuts, longevity, and investment risk and (in some countries) the risk that pensions will be eroded by inflation[24]. Defined benefit funds are particularly rich in such features, although they are not entirely absent for defined contribution. On this view, pension funds are seen as insurance subsidiaries of the sponsoring firm, and not as an integral part of the balance sheet. He suggests this approach explains a number of features of pension funds, notably provision by the employer and the historical dominance of defined benefit schemes, as well as financial policies seemingly contrary to shareholders' interests such as ad hoc increases in benefits, mandatory membership and payouts being in the form of annuities. For both defined benefit and defined contribution funds, employer provision is partly explicable in terms of insurance aspects.

Davis[23] argues that employers have superior information regarding current and future earnings, which are of key relevance to the employee's long term financial needs. They may have interests more in common with employees than have for example personal pension salesmen, given the need to maintain reputation in the labour market and - of particular importance - the fact managers and employees typically participate in the same scheme. Company pension funds, both defined benefit and defined contribution, are also superior to insurance companies as they can reduce longevity risk by avoiding some of the adverse selection problems of private annuity insurance.

These problems arise from asymmetries of information between private insurers and those buying annuities; only those with high life expectancy (i.e. bad risks) will tend to buy them, which induce increases in the price, and withdrawal of more of the good risks. In the limit the market may cease to function, or at least be prohibitively priced. Pension funds avoid this problem by providing a company-wide pool of good risks and bad risks for the insurer, or alternatively by providing the annuities themselves[23].

Where funding rules permit, such smoothing may also arise via risk transfer to younger workers who implicitly accept temporary declines in the value of assets backing their claims while pensioners receive their rights in full. A further form of insurance provided by defined benefit funds is that against factor-share uncertainty (i.e. relating to the division of GDP between wages and profits, Bodie et al[3].

This is because they offer workers the ability to participate in an implicit security whose return is tied to the wage rate at the time of retirement, whereas defined contribution funds tie workers in to the returns on physical capital, with no stake in labour income during their retirement period.

On the asset side, risk management by pension funds links directly to the portfolio objectives Bodie[24]. For example, in order to maintain a balance between assets and liabilities in the context of minimum funding regulations for defined benefit funds, asset managers may adopt immunization strategies such as writing call options on equities to convert them into short-term fixed-income securities for matching purposes. Also, portfolio insurance (contingent immunization) strategies are common means of hedging against shortfall risk. One means of achieving portfolio insurance involves holding assets in excess of the legal minimum in equities, reducing their proportion when the market value of pension assets falls, and entailing use of index options and futures markets and of programme trading more generally.

For all types of fund, use of derivatives may also be for controlling risk by increasing or reducing exposure to an asset class; and for cutting costs, where a large change of asset allocation is anticipated.

There are uses in cash flow management, whereby positions may be adopted before assets are purchased (by buying futures and selling put and buying call options). Then there is tactical asset allocation; use of derivatives allows asset managers to change asset allocations more cheaply and rapidly than by selling or buying a large volume of assets.

When managers are changed, options can be used to replicate the original position which assets are shuffled to reflect the new manager's portfolio preferences. This allows the shift to take place gradually, without incurring market liquidity problems.

2.2.4. Providing Price Information

As noted, pension funds seek publication of information from companies directly, and press for market-value based accounting systems. This is of benefit to all users of the market - although it disadvantages banks, which in making

loans tend to rely on private information not available to other investors, Davis[23].

Superior ability to employ such information is suggested by studies showing that initial public offerings that are largely subscribed by institutional investors tend to do well, while those largely purchased by the general public tend to do badly. This suggestion is also supported by econometric analysis, Davis[23] of the portfolio distributions of life insurers and pension funds, which show asset holdings at a sectoral level relate strongly to relative asset returns.

Such market sensitivity generates an efficient allocation of funds as pension funds, having good information and low transactions costs, speed the adjustment of asset prices to fundamentals. (This should only entail price volatility to the extent fundamentals are themselves volatile.)

In a global context, cross-border portfolio investment should enhance the efficiency of international capital markets, by equalizing total real returns (and hence the cost of capital) between market[23].

Such a process occurs as investment managers' shift between over- and undervalued markets via tactical asset allocation (utilizing price information). Increased efficiency, reflected in accuracy of market prices, enables capital to flow to its most productive use and savers to maximize their returns.

By contributing to the growing diversity in types and sizes of institutions, in terms of their liabilities, incentives, and consequent attitudes to risk, the growth of pension funds should also be stabilizing to financial markets, and thus assist accurate provision of price information. In the words of BIS[22], a financial system's stability depends on "the coexistence of participants with divergent objectives and mutually complementary behaviour". Diversity should be further increasing as ultimate responsibility for asset allocation is handed back to individual investors in defined contribution pension funds.

Exceptions to these arguments for stabilization could arise however (Allen and Gorton[14], Davis[23] if pension funds act in a herd like manner and drive prices away from fundamentals.

2.2.5. Providing Ways to Deal with Incentive Problems

Davis[23] confirms that Pension funds have a comparative advantage over individual investors in dealing with issues of corporate governance, given the size and voting weight that they can wield. It should be stressed though that there are limits to pension funds' involvement, especially in respect of debt finance, thus leaving a role for banks.

Managers, who have superior information about the firm and its prospects and at most a partial link of their compensation to the firms' profitability, may divert funds in various ways away from those who sink equity capital in the firm, notably expropriation or diversion to unattractive projects from a shareholder's point of view.

Principal-agent problems in equity finance imply a need for shareholders such as pension funds to exert control over management, while also remaining sufficiently distinct to let them buy and sell shares freely without breaking insider trading rules, Davis[23].

If difficulties of corporate governance are not resolved, these market failures in turn also have implications for corporate finance in that equity will be costly and often subject to quantitative restrictions.

Effectiveness of corporate governance is typically enhanced by presence of large investors, such as pension funds. They will have the leverage to oblige managers to distribute profits to providers of external finance either directly or via the threat to sell to takeover raiders. They are needed because individual investors may find it difficult to enforce their rights, owing to difficulty of acting in a concerted manner against management and related free rider problems which make it not worthwhile for an individual to collect information and monitor management.

Since pension fund stakes are typically limited to 5% of a company, they also avoid the "downside" to dominant investors, who if they own a large proportion of the company may override the interests of minority shareholders and could even reduce measured profitability, Morck et al[21].

Besides improving the quality of corporate governance, pension funds may change its nature. As is well known, countries such as Germany have traditionally featured relationship banking-based corporate governance. This typically involves companies forming relationships with a small number of creditors and equity holders. Davis holds that there is widespread cross shareholding among companies. Banks are significant shareholders in their own right and in Germany are represented on supervisory boards both as equity holders and as creditors.

In such systems, the influence of pension funds is often limited by voting restrictions, countervailing influence of corporate shareholders and lack of detailed financial information, as well as the right of other stakeholders (employees, suppliers, creditors) to representation on boards. Implicitly, monitoring of managers is delegated to a trusted intermediary - the bank.

Foreign or domestic pension funds may transform the system by pressing for primacy of equity holders as owners of the firm over other stakeholders, improved returns on equity, a greater provision of information by firms, support of hostile takeovers and removal of underperforming managers Davis[23].

This implies a greater degree of control by capital markets, and a decline in the traditional forms of governance linked to "relationship banking". Partly due to free rider problems, securities market development could have the side effect of reducing banks' willingness to "rescue" firms in difficulty. Companies might need to reduce their leverage.

Turning to debt finance, the traditional theories of intermediation can be used to distinguish borrowers from banks from those accessing capital markets, and whose liabilities may hence be held by pension funds, Davis and Mayer. Broadly speaking, these theories suggest that

pension funds will only cater for a limited range of high quality borrowers with good reputations, which are thus able to issue bonds.

Davis[23] suggests that these differences continue to hold, as pension funds focus mainly on government bonds and high-grade corporate bonds, while banks tend to monopolize small business financing. But boundaries are shifting, as highlighted by the development of rating agencies, junk bonds and the expanding range of securitized debt. Pension funds are tending to hold a much wider range of debt even though in some cases they delegate the monitoring to the originator, and/or to the rating agencies. Securitization in turn lowers the cost of debt finance to the end user, given the liquidity offered compared to a loan. Even delegated monitoring is not universal; in the Netherlands pension funds are active as both lenders and monitors in the loan market.

Companies as pension-fund sponsors can overcome many of the agency problems faced by individuals in dealing directly with financial institutions, as they have considerable countervailing power against asset managers, imposing performance reviews and changing managers when dissatisfied with the results[23].

3. Methodology

This part describes the methodology that was adapted in addressing the study objectives. It includes the data collection techniques, research design, sample and sampling procedure, instrumentation, data analysis and techniques.

The researcher adopted descriptive research design with an objective of describing the roles that pension funds play in financial intermediation. This is because descriptive method reports the way things are in order to look closely to the problem statement which is in line with the underlying research objectives.

The population of this research comprised all the available literature on the online web as pertaining pension funds and also financial intermediation. Using key word characters, the search initially identified 50 journals and after a tentative scrutiny, 37 journals were selected in a random sampling manner in order to give the birth of this discussion paper. This study relied wholly on secondary data and thus a survey of documented data was applied in acquisition of prerequisite information, literature and background of this research topic.

Secondary data constituted information gathered from text books, unpublished and published dissertations, journals and the internet as pertaining role of pension funds in financial intermediation. Secondary data was most favoured than primary data in this research because of its minimized bias, easy of reference, greater speed of knowledge retrieval and within the favourable time limits.

Empirical results were then described in line with the empirical literature under review.

4. Empirical Results

4.1. Provision of a Mechanism for Pooling of Funds and Subdivision of Shares

Pension funds offer much lower costs of diversification by proportional ownership Fees for managing investments for as low as 25 basis points for company pension funds and 100 basis points for personal pension funds.

Pension funds can also offer the possibility of investing in large denomination and indivisible assets such as property which are unavailable to small investors.

4.2. Provision of Ways to Transfer Economic Resources

Pension funds may increase the volume of saving per se besides the disposition of household funds.

At a micro level, company or other obligatory pension funds can implement enforced saving by deferring wages and salaries, thereby reducing risk of a low replacement ratio.

At a macro level, the increase in saving is not usually one-to one, as increased contractual saving via pension funds is typically partly or wholly offset by declining discretionary saving.

The remaining effect probably results from liquidity constraints on some individuals (especially the young), who are unable to borrow in order to offset obligatory saving via pension funds early in the life cycle. It can also be anticipated that, even in a liberalized financial system, credit constraints will affect lower income individuals particularly severely, as they have no assets to pledge and also have less secure employment.

4.3. Provision of Ways To Manage Uncertainty and Control Risk

Pension funds provide risk control directly to households via the forms of retirement income insurance they provide, an advantage which largely reflects the unusual (among financial intermediaries) link of pension funds to employers. To assist in undertaking this risk control function they diversify assets as noted above and also act in securities and derivatives markets to hedge and control risk.

For defined benefit funds, companies are large and long lived, with their own income flow, assets and ability to borrow, and can therefore act as a self-insurer and smooth out losses that would otherwise be incurred by cohorts of workers who retire when investment returns are low.

4.4. Provision of Pricing Information

Pension funds seek publication of information from companies directly, and press for market-value based accounting systems. This is of benefit to all users of the market - although it disadvantages banks, which in making loans tend to rely on private information not available to other investors.

4.5. Provision of Ways to Deal with Incentive Problems

Dealing with incentive problems in equity finance is one of the most crucial aspects of pension funds' activities as financial intermediaries. The basic issue in corporate governance is simply stated. Given the divorce of ownership and control in the modern corporation, principal-agent problems arise, as shareholders cannot perfectly control managers acting on their behalf.

5. Conclusions

The key objective of this article has been to discuss the role of pension funds in financial intermediation. Among the roles discussed in this paper are; provision of a mechanism for pooling of funds and subdivision of shares, provision of ways to transfer economic resources, provision of ways to manage uncertainty and control risk, provision of ways to manage uncertainty and control risk, provision of pricing information and the provision of ways to deal with incentive problems

Pension funds will tend to grow and displace other institutions for this reason independent of the supply side advantages. A financial system dominated by pension funds will be strong in terms of cross-sectional risk sharing but may be weaker for inter-corporate risk sharing.

It has been shown that pension funds have been able to fulfill a number of roles, directly or indirectly, more efficiently than other types of institution or than direct holdings. In this sense, pension funds may be seen as more efficient financial institutions that are tending to displace existing arrangements.

Also of notice is the growing trend towards dependency on pension funds which proves that these funds tend to complement capital markets and act as substitutes for banks. The pillar to the growth of pension funds is the fiscal policy blocks comes with it incentives to encourage both individual and employee schemes and also the employer schemes. Growth of pension funds is also driven by the growing demand arising from the ageing of the population.

The researchers recommend a new research on the factors behind the rise of pension funds in the worldly economy.

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