

Necessary adjustment of pensions under aging societies

For the PBSS Colloquium 2017 in Cancun, Mexico

(Outline of this paper)

The purpose of this paper is to discuss necessary adjustment of pensions under aging societies.

In Section 1, I describe the philosophy of public pensions. Public pensions should be understood as a part of Intergenerational Care chain.

In Section 2, I refer to the influence of aging on public pensions. Fewer children phenomenon would weaken future support for their parents while it would reduce burden of childhood care of them. Longer life expectancy phenomenon makes old age spending larger to emerge the pressure for increasing benefits. Prolonging active period (working longer) is the key solution for public pensions under aging situation

In Section 3, I refer to the influence of aging on private pensions that is somewhat different from that of public pensions. Fewer children would not directly affect to private pensions, but longer life expectancy would affect to them immediately by the increase of spending after retirement. Private pensions should be considered as the instrument that a part of one's earning will be distributed to his/her old age (after retirement).

In Section 4, I mention the desirable adjustment of pensions under aging societies. I propose the combination of retirement savings and the Pension Payment Organization as a group insurance for the future of private pensions. And I state the burden sharing of employers, individuals and a government by dividing 3 phases. at the end.

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0. The purpose and the structure of this paper

In this paper, I would like to discuss necessary adjustment of pensions under aging societies. To do so, I should define pensions so that private pensions can be distinguished clearly from public pensions at first.

Next, I would consider the influence of aging situation on public pensions that would pose important impacts on private pensions as well.

Thirdly, I would go into the consideration of the influence of aging situation on private pensions that should be somewhat different from that of public pensions. In this argument, I would refer to different type of private pensions.

Finally, I would reach my conclusion/proposal for the desirable adjustment of future private pensions.

Thus, the structure of this paper would be as follows:

- Section 1: The philosophy of public pensions
- Section 2: The influence of aging on public pensions
- Section 3: The influence of aging on private pensions
- Section 4: The desirable adjustment of pensions under aging societies

1. The philosophy of public pensions

(1) The definition of public pensions

To begin with, it is necessary to define public pensions and to distinguish them clearly from private pensions. I define (pure) public pensions whose characteristics are as seen in [Chart1.1](#), although there are some other definitions of them.

Chart 1.1: Characteristics of (pure) public pension plans

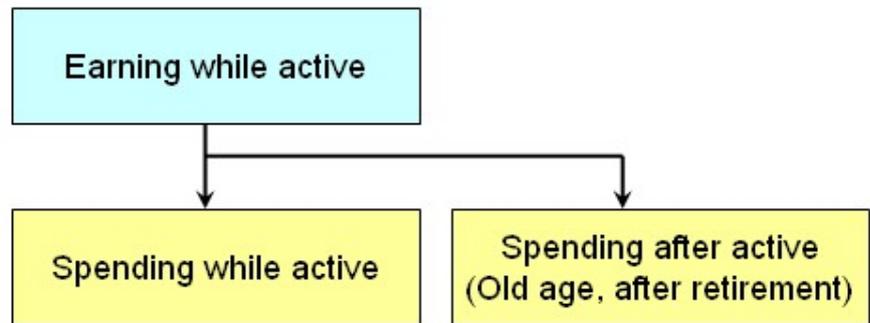
Item	Description
Coverage	Everyone in a country
Enforcement	Compulsory
Management	By a government (a governmental agency)

Here, I should refer to 'Quasi public pensions'. Occupational pensions are sometimes deemed as public pensions. They may be compulsory and be managed by a government. So, there are some who think that some occupational pensions are the core of public pensions. However, I do not think that occupational pensions are the core of public pensions. The reason is that their coverage is not everyone in a country, but limited to a part of people. In my definitions, those occupational pensions should be considered in a category of private pensions even if they are compulsory or are managed by a government.

(2) Misunderstanding about public pensions

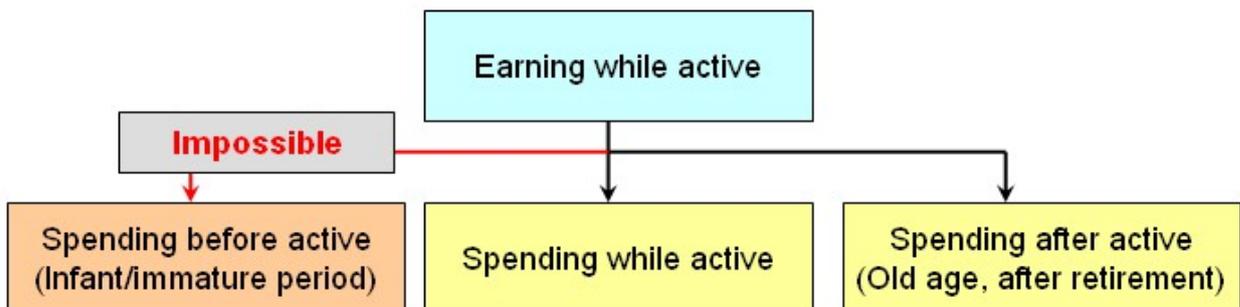
Before considering the influence of aging on public pensions, it is necessary and useful to point out the misunderstanding about public pensions that is sometimes seen in discussions by economists etc. They insist that public pensions should be managed by a funding method. Their concept seems to be as seen in [Chart 1.2](#).

Chart 1.2: The concept of those who insist a funding method for public pensions



However, this is inadequate because of the lack of consideration of infant or immature period. Therefore, their concept should be changed as seen in [Chart 1.3](#).

Chart 1.3: The modified concept of Chart 1:2

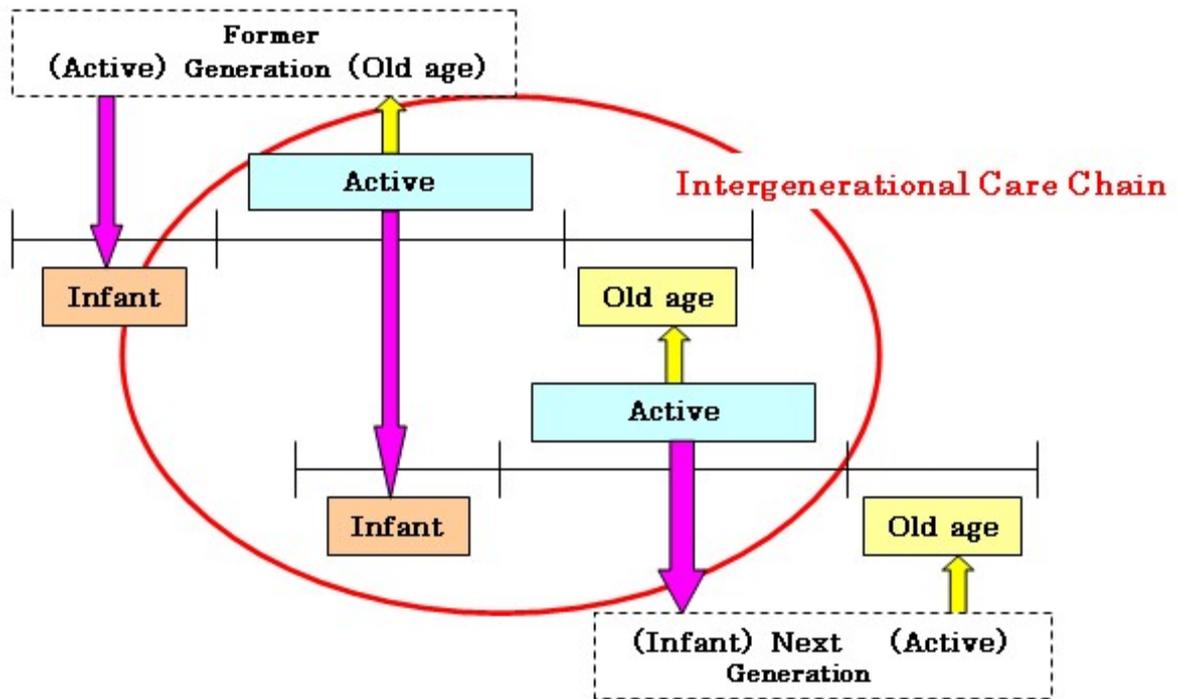


Unfortunately, it is impossible for any one to support his/her infant period spending by oneself. Here, there emerges the necessity of intergenerational consideration.

(3) Intergenerational Care Chain

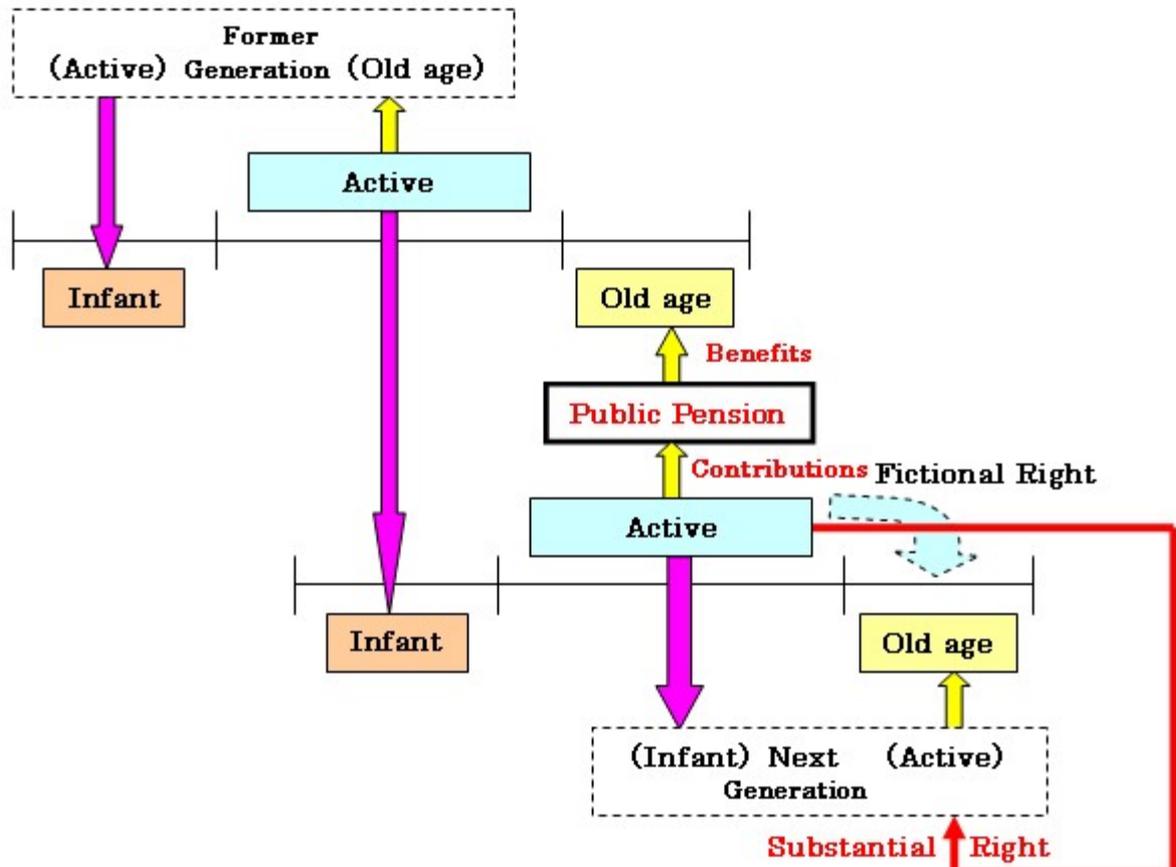
As a matter of fact, intergenerational chain has been continued since human being had emerged. This has been essential element that the species of human being has survived. The system of earning distribution under Intergenerational chain is as seen in [Chat 1.4](#).

Chart 1.4: Earning distribution under Intergenerational chain



The role of public pensions in this intergenerational chain system is as seen in [Chart 1.5](#).

Chart 1.5: The role of public pensions for Intergenerational chain



(4) Fictional right and Real right in public pensions

The inducement of public pensions should not have changed the essence of intergenerational care chain since it is necessary for the survival of the species of human being. It has changed old age care from family support to social support. This is one result of evolutions of civilization and mutual help of human beings. An example of the necessity of public pensions can be seen in the chaos after the economic disaster of 1929-30 in the United States.

Public pensions are very smart system that people can be persuaded and rely upon. They are told that their contributions are for their income security of their old age. By this logic, they think that they can get the right to receive benefits after retirement in exchange of their contributions while active. However, this is the 'Fictional Right'. With or without public pensions, intergenerational care chain should be needed for the survival of the species of human being and cannot be changed by public pensions.

.So, the 'Real Right' of public pensions is to strengthen and socialize the intergenerational care. Contributions of active people are for their parents in return of the childhood care that they had received. Benefits for retired people are in return of the care that they had provided for their children.

The brilliant function of public pensions is the socialization of old age care. With public pensions, old age care can be spread beyond space and time. One can support to and be supported by unknown others of contemporary. And one can support to and be supported by unknown others beyond generations. That is why pensions are one of the greatest inventions during 20th Century.

Ironically, the great success of public pensions may become one of the reasons of aging societies. The prevailed fictional right happens to link an idea that one can live on pensions even without children. Of course, this is harmful for the intergenerational care chain. I think that childhood care should be also socialized to avoid such misunderstanding and to strengthen intergenerational care chain.

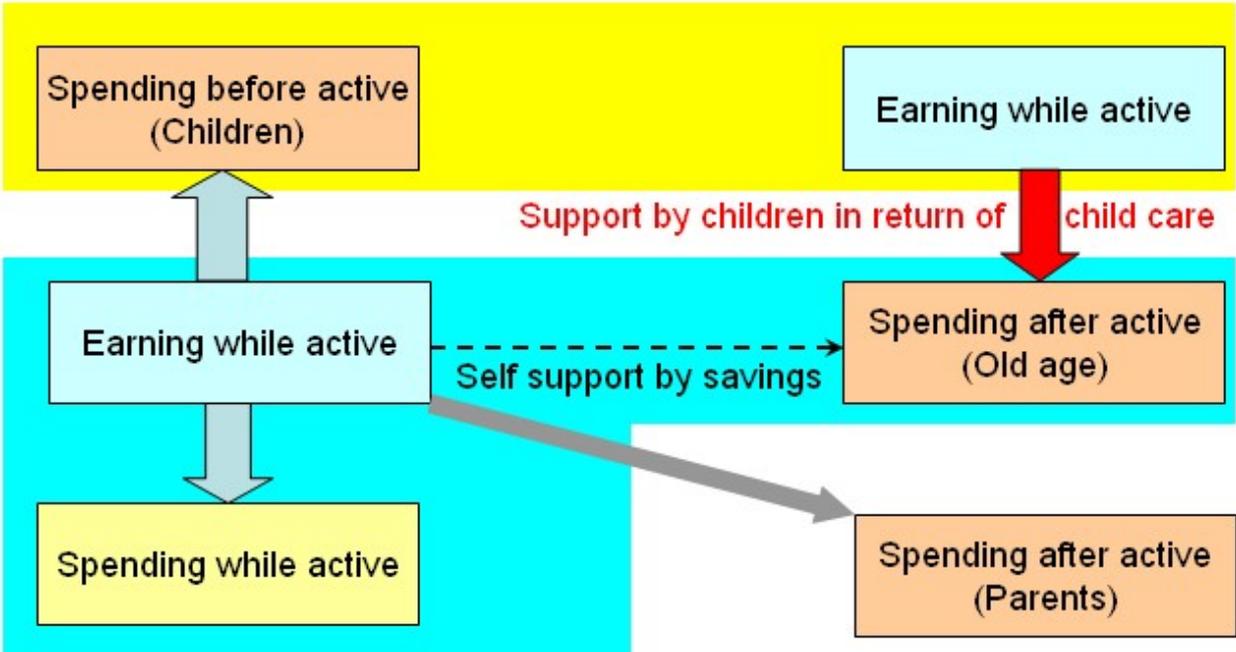
2. The influence of aging on public pensions

(1) Review of Intergenerational Care chain

It would be useful to review the intergenerational care chain as another form before moving into considerations of the influence of aging on public pensions.

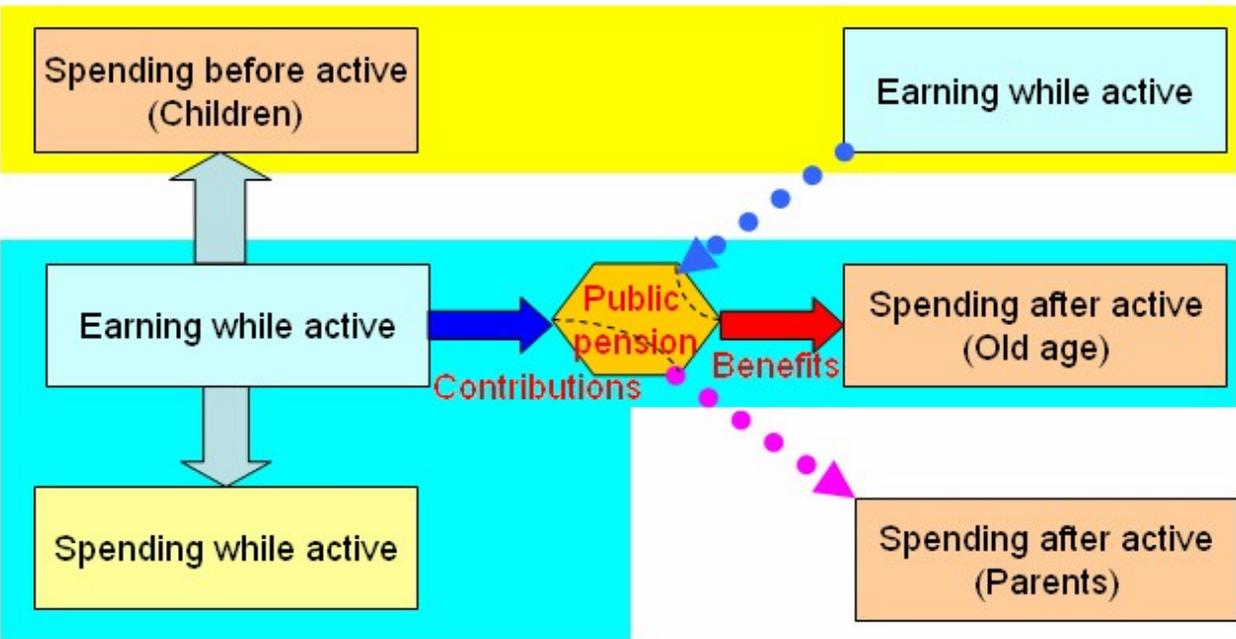
Chart 2.1 shows the situation in an era of original intergenerational care chain.

Chart 2.1: Original Intergenerational Care chain



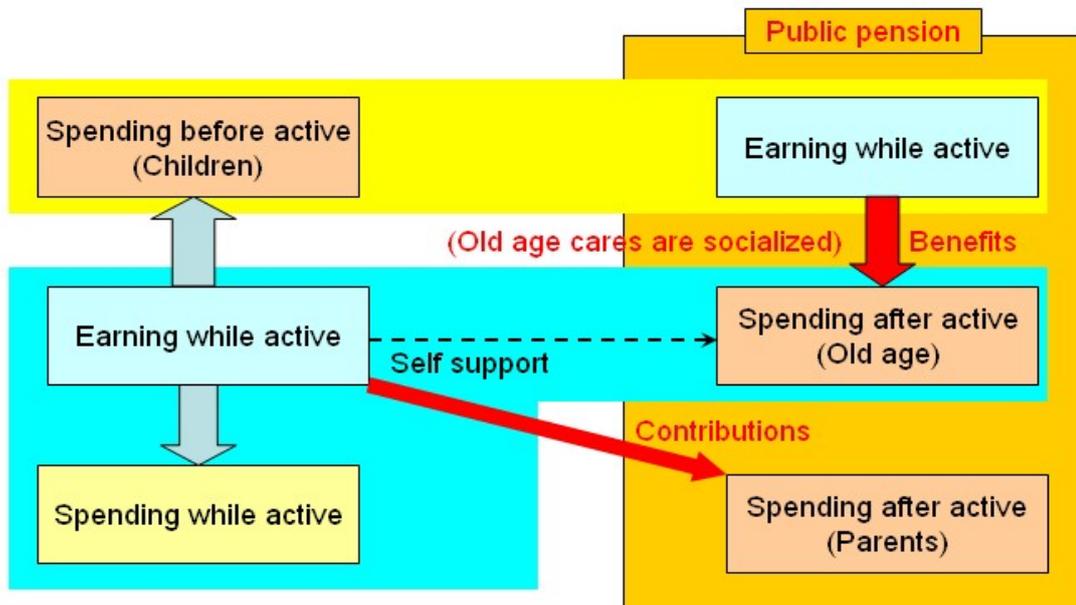
And Chart 2.2 shows the 'Fictional Right' of public pensions

Chart 2.2: Fictional Right of public pensions



And [Chart 2.3](#) shows the ‘Real Right’ of public pensions.

Chart 2.3: Real Right of public pensions



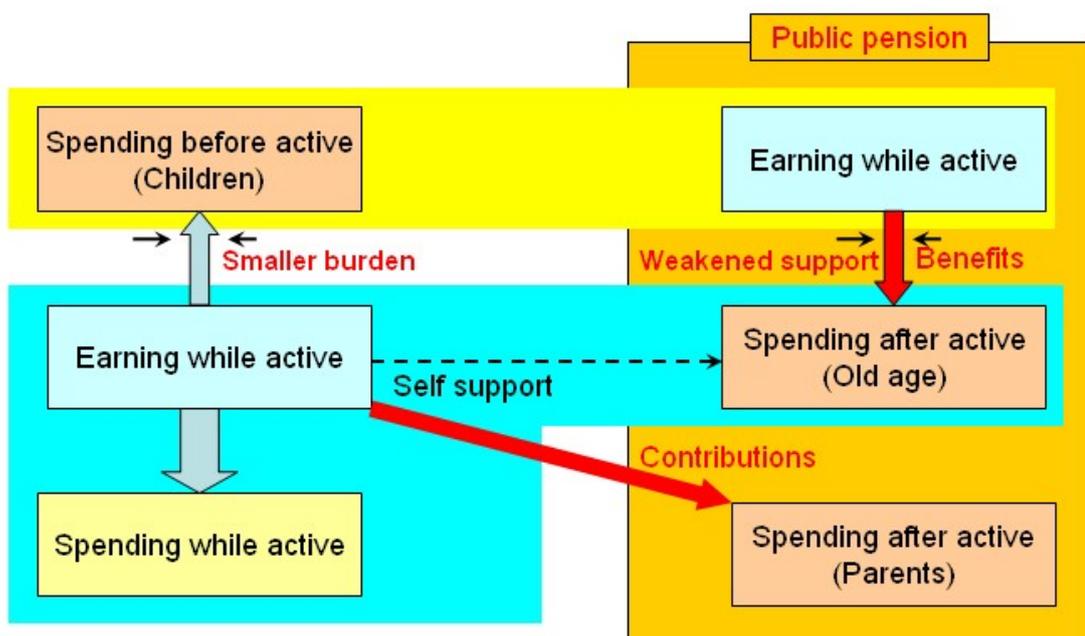
Hereafter, I will modify Chart 2.3 to consider the influence of aging situation.

(2) Influence of aging for public pensions

There are two factors for aging – ‘Fewer children’ and ‘Longer life expectancy’. Both factors affect public pensions, but the ways are different.

To begin with, ‘Fewer children’ phenomenon affects as seen in [Chart 2.4](#).

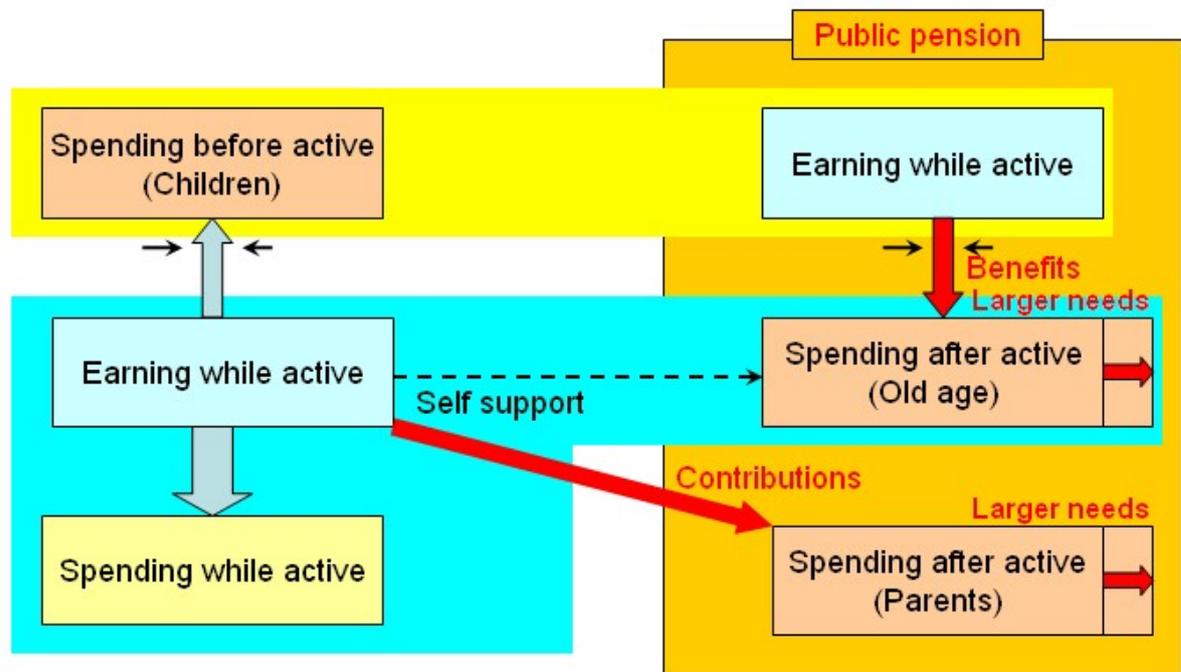
Chart 2.4: Influence of ‘Fewer children’ on public pensions



Fewer children phenomenon would weaken future support for their parents while it would reduce burden of childhood care of them. It would link to the movement of reducing benefits.

On the other hand, 'Longer life expectancy' phenomenon affects as seen in [Chart 2.5](#).

Chart 2.5: Influence of 'Longer life expectancy' on public pensions



In this situation, old age spending would be larger to emerge the pressure for increasing benefits. It should be necessary to increase contributions to do so, but people of current generation could not receive sufficient benefits in the future because of 'Fewer children'. There emerges 'Intergenerational inequity' problem.

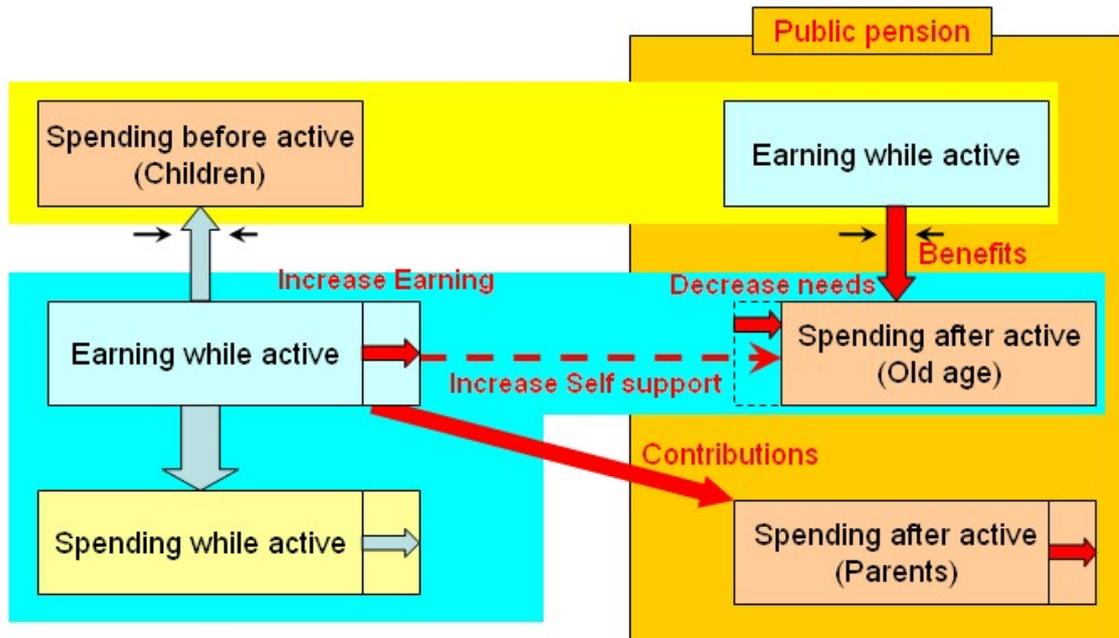
To cope with the problem, it is necessary to make some adjustments for public pensions. Possible adjustments are as follows.

- Increase Contributions
- Reduce Benefits
- Prolong pensionable age

Here, we should go back to the essence of public pension plans. They are a part of the system of Intergenerational Care chain. Without public pensions, it would be natural that elderly people would prolong their retirement against longer life expectancy and try to reduce supports from their children. This kind of treatment should be also necessary for public pensions, since they are socialized scheme of family support for old age people.

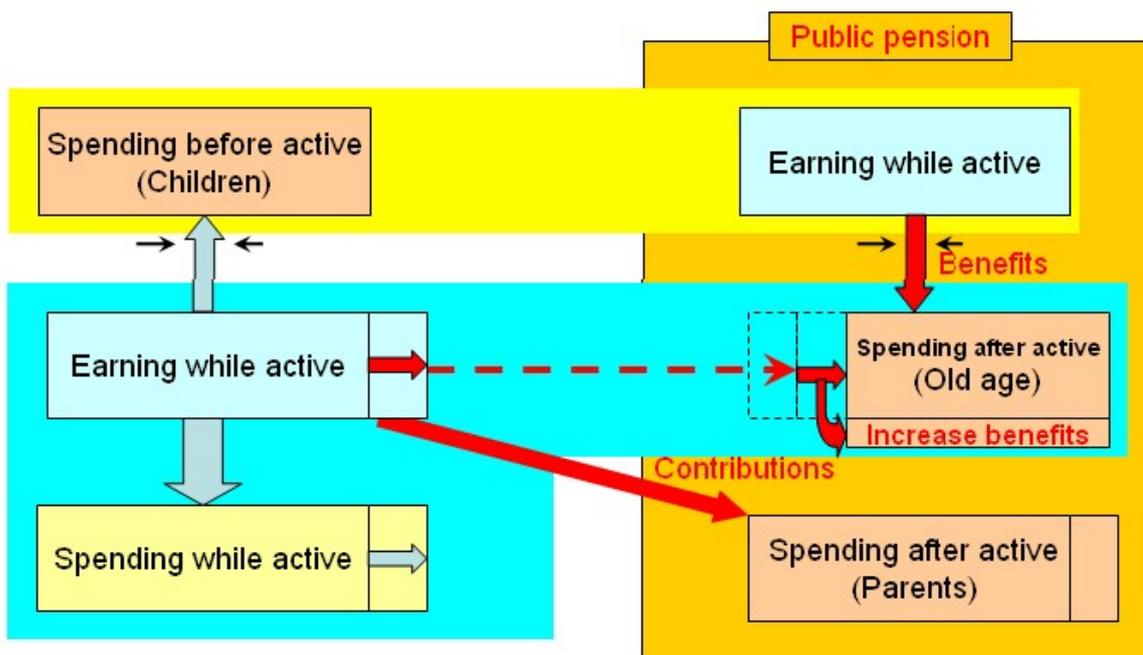
Therefore, prolonging active period (working longer) is the key solution for public pensions under aging situation as seen in [Chart 2.6](#).

Chart 2.6: Adjustment of public pensions against aging



In addition, if some old age people could delay their pensionable age (voluntarily), such action could reduce the burden for public pensions and also increase pension benefits as seen in [Chart 2.7](#).

Chart 2.7: Adjustment of public pensions against aging



Raising official pensionable age or reducing benefits automatically by the progress of aging would be effective to make people working longer. Such treatments should be inevitable to make public pensions sustainable. However, there is one thing to be considered. It is the fact that already retired people could not return to labor market and work longer basically. It is very important not to make their living standards to harmful low levels.

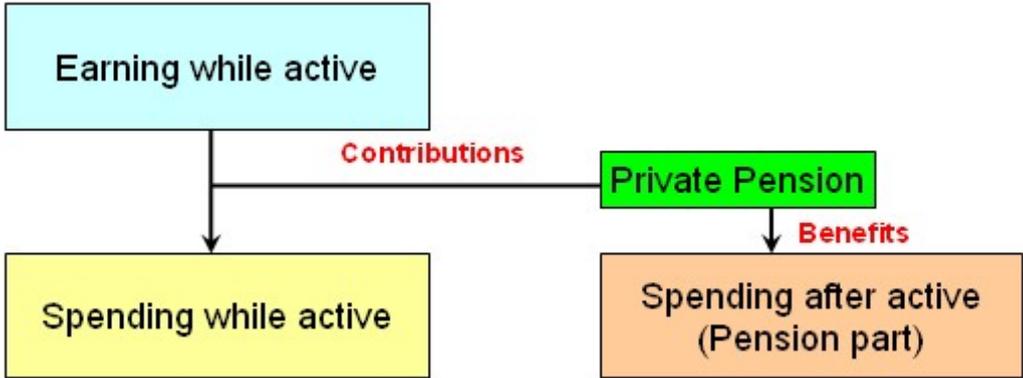
The essential factor that makes public pensions sustainable is not reserved funds, but the trust of people for the socialized intergenerational care chain. Increased burden by aging should be shared by each generation fairly.

3. The influence of aging on private pensions

(1) The difference of private pensions from public pensions

On the other hand, private pensions should be considered as the instrument that a part of one’s earning will be distributed to his/her old age (after retirement) as seen in [Chart 3.1](#). They should not be considered as a part of Intergenerational Care chain, since their coverage is not all people but limited people as within a same industry etc.

Chart 3.1: The role/function of private pensions



Therefore, private pensions should be understood as a kind of savings, although they may have some function of insurance among the segment of people (participants).

There are many sort of private pensions categorized as seen in [Chart 3.2](#).

Chart 3.2: The category of private pensions

Category	While active	After retirement
Lump-sum	Designated benefit	(Realized return)
Traditional DB	Designated benefit	Guaranteed return
Cash Balance like	Designated benefit	Variable interests
Cash Balance	Variable interests	Variable interests
Pure DC	Realized return	Realized return

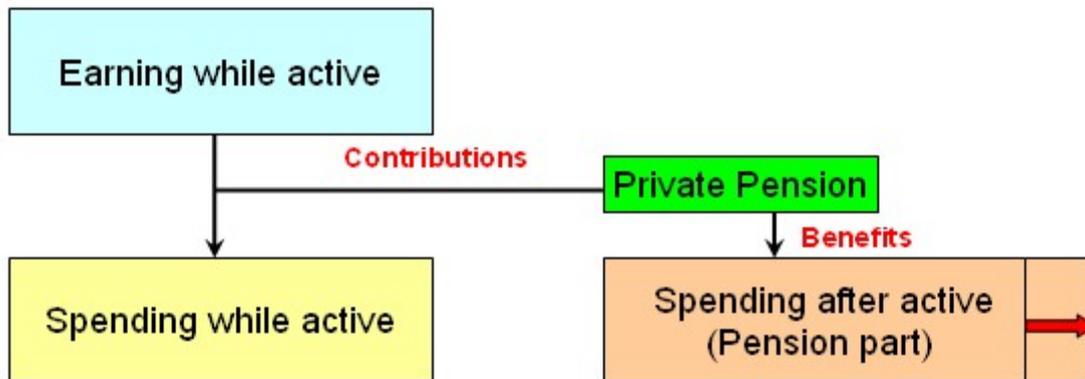
The insurance factor is strong in the Traditional DB, and it is somewhat weakened but still there in Cash Balance or Cash Balance like. Lump-sum has the insurance factor while active, but DC has fundamentally no insurance factor in the plan.

The key element here is that private pensions are the system that active people prepare their old age by themselves during their active period, while there may be some degree of insurance among participants of those plans.

(2) The influence of aging on private pensions

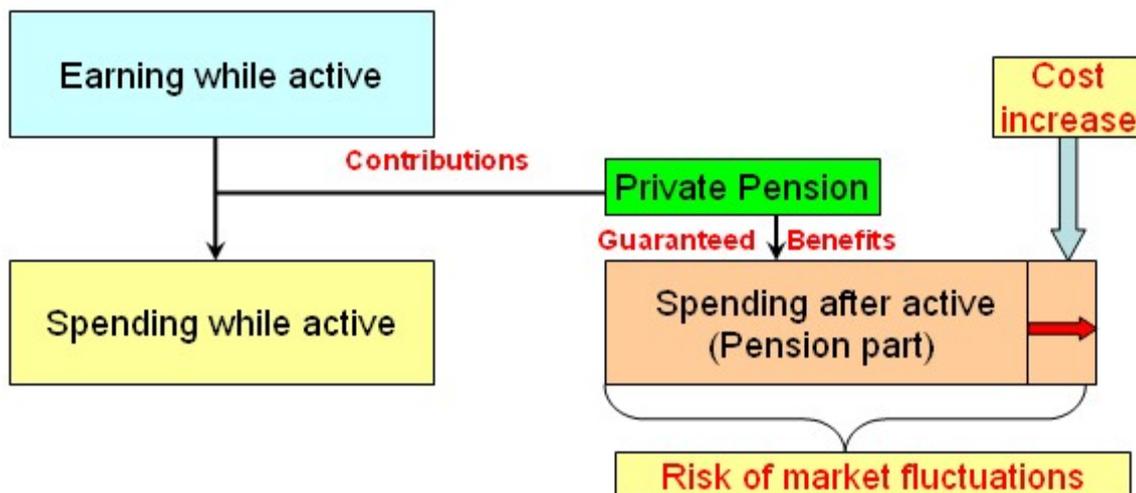
The influence of aging on private pensions is somewhat different from that of public pensions. Fewer children would not directly affect to private pensions, although their new members would decrease to weaken their financial situation in the long term. On the other hand, longer life expectancy would affect to them immediately by the increase of spending after retirement as seen in [Chart 3.3](#).

Chart 3.3: Influence of longer life expectancy on private pensions



Traditional DB plans lack flexibility for this longer life expectancy as seen in [Chart 3.4](#).

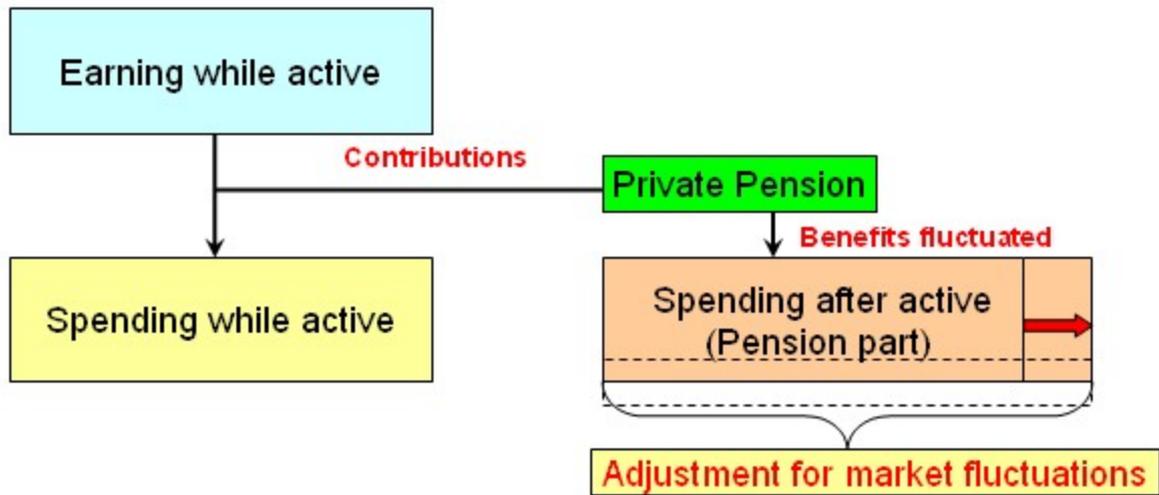
Chart 3.4: Influence of longer life expectancy on Traditional DB plans



In traditional DB plans, risk and additional cost should be financed by earnings of younger participants, and ultimately under burden of share holders. That is why employers suffer to persuade younger employees and share holders and sometimes abandon to maintain traditional DB plans.

On the other hand, pure DC abandons the guarantee of benefits, and is not influenced by aging as seen in [Chart 3.5](#).

Chart 3.5: Influence of longer life expectancy on pure DC plans

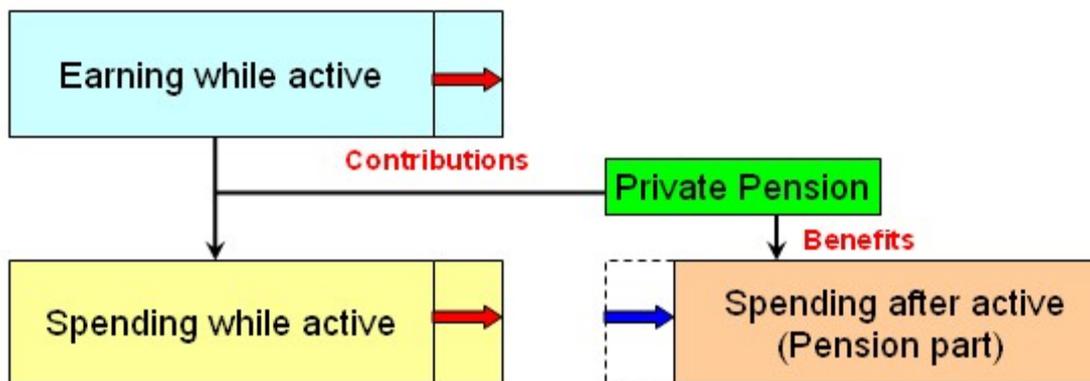


In pure DC plans, risk should be financed on the shoulder of beneficiaries, that would lead to unstable old age living. Even so, many employers have changed their traditional DB plans into pure DC plans to their management more stable and to avoid collisions with younger employees and share holders.

(3) Effective adjustment against aging for private pensions

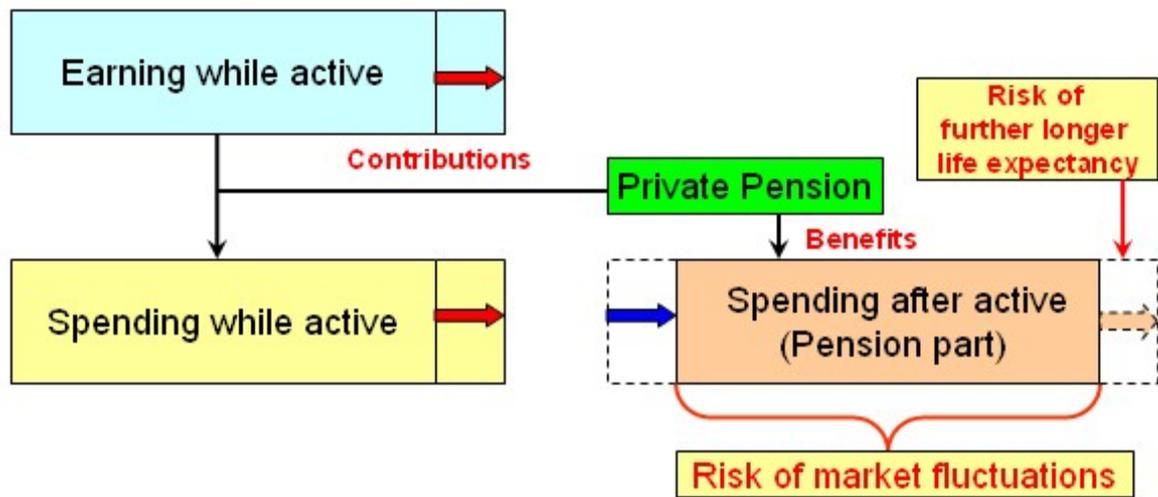
Here again, working longer is the effective adjustment against aging as seen in [Chart 3.6](#).

.Chart 3.6: Effective adjustment for private pensions against aging



However in traditional DB plans, there remains the risk of market fluctuations that may be critical under unforeseeable market situation. Furthermore, there remains the risk of future aging as seen in [Chart 3.7](#).

Chart 3.7: Remained critical risk for Traditional DB plans



Large occupational pension plans might bear those risk to somewhat adjust benefits, but it should be difficult for relatively small DB plans to maintain the scheme.

As a conclusion, pension benefits cannot be provided by employers under aging situation and volatile market situation. That is the end of pensions.

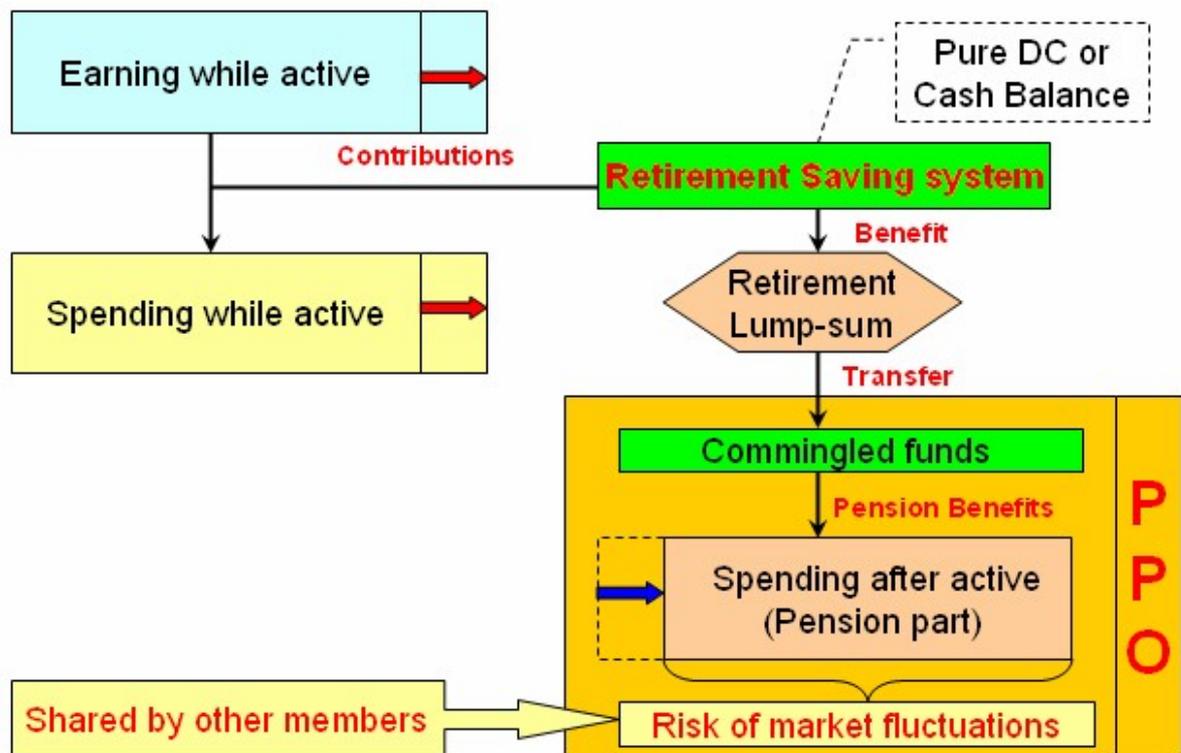
4. The desirable adjustment of pensions under aging societies

(1) Desirable adjustment for private pensions

However, the needs for pension benefits have been increasing because of longer life expectancy. So, it is necessary to consider the way to provide pensions instead by employers.

The scheme is described as seen in [Chart 4.1](#).

Chart 4.1: Desirable adjustment for private pensions



(2) Retirement saving while active

It is useful and important to divide the phase while active and that after retirement to consider the desirable future private pension plan.

One can save by oneself by any means on his/her choice. However, it is more profitable to use a scheme with tax benefits. As a matter of fact, a DC plan is one of such schemes.

If we consider the period while active only, a pure DC plan is not an exclusive choice. Employers can provide other form of retirement savings as such like DB plans, although their benefits are not pension benefits after retirement but lump-sums at retirement. And employers may persuade such kind of DB like plans to younger employee or share holders, since they can avoid risk after employees leave their companies.

There is one thing that we should note about such a plan. It is important to avoid too excessive seniority increases for such a plan, since that would make the cost of the plan back-loading and would be harmful for younger employees. To do so, Cash Balance (like) plans are adequate as well as DC plans.

(3) Pension Payment Organization (PPO)

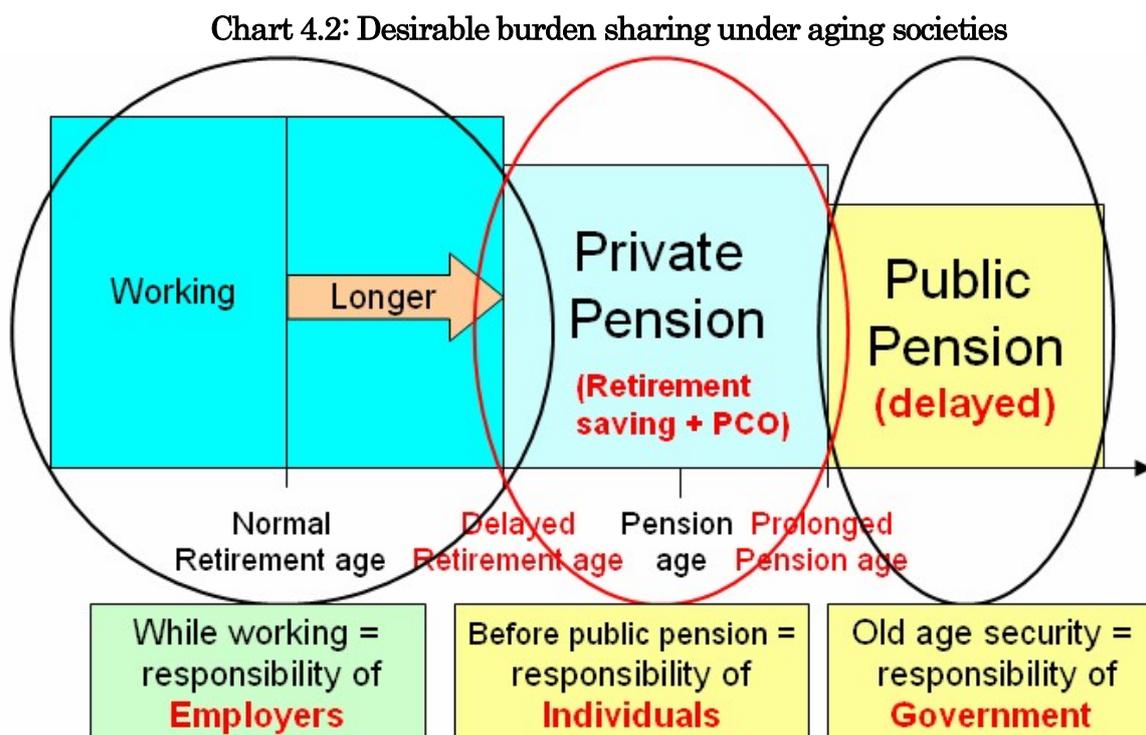
The problem arises after people receive retirement lump-sum benefit after retirement. Lump-sum benefits themselves may not be adequate for aging situation. However, employers and a government lack the capability of providing pension benefits as before. It is necessary to consider group insurances for this situation. I propose the Pension Payment Organization (PPO) as one of such group insurances.

The scheme of the PPO is as follows. The transferred retirement lump-sums go into commingle funds which are separated by sorts of pension benefit types (lifetime or limited period etc). Those commingle funds are managed to attain the purposes of pension benefit types. Participating members can prolong starting age of receiving pension benefits. Risk of market fluctuations is shared by members. Group risk sharing is much better than individual risk sharing. The PPO can receive any transfers (from DC plans etc. as well).

There may be someone who insists that retirement savings are far from pension plans. However, the most important thing is how to provide retirement income security for old age people under aging situation. The combination of retirement saving plans and the PPO should be considered as private pensions as a whole.

(4) Desirable burden sharing under aging societies

Desirable burden sharing or responsibility under aging societies can be described as seen in [Chart 4.2](#).



We can divide the responsibility into 3 phases. First, employers should take responsibility while working. They should seek employees working longer because of aging and hopefully provide schemed retirement saving plans for their employees. Secondly, individuals should take responsibility of period after retirement till beginning of public pension benefits by using their retirement savings (by utilizing the PPO etc). Finally, a government should take responsibility for old-age income security like before. However, its responsibility would be reduced if people prolong their pension receiving ages by working longer.

5. Conclusions

Here are conclusions of this paper.

Public pensions should be understood as a part of Intergenerational Care chain.

The influence of aging on private pensions is somewhat different from that on private pensions, although working longer is effective treatment for both of them.

There has been the trend that DB plans had changed to DC plans. The reason is that employers face difficulty to persuade young employees and share holders about undertaking risk to providing pension benefits for retired former employees under aging and volatile market situation.

The system of private pensions should be reviewed. One possible way is the combination of retirement savings and the Pension Payment Organization as a group insurance of transferred lump-sum to change into pension benefits.

It is important to make clear the burden sharing of employers, individuals and a government by dividing 3 phases. Employers should take responsibility for their employees while working by providing jobs for their earnings and hopefully helping them to construct retirement savings. Individual people should take responsibility for the period after retirement till beginning of public pension benefits by using their retirement savings. A government should take responsibility for old-age income security like before. In each 3 phases, working longer is the key solution under aging societies.

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