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RETIREMENT DECISIONS, BENEFITS AND THE NEUTRALITY OF PENSION SYSTEMS

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Abstract

This study discusses the pension system as an institutional structure for intergenerational exchange. The concept of intergenerational equilibrium is introduced as a condition for pension system stability, reducing labour market distortions as well as reaching social policy goals such as giving equal value to the welfare of each generation. The changing population structure has led to diminishing control of the division of GDP between the working and retired populations. The cost imposed on the working generations poses a growing risk of poverty among them and their families. The key feature of the pension system should be its neutrality. This report presents the main dimensions of the desired neutrality, exploring macro, individual, social and psychological neutrality.

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Contents

1. Introduction	1
2. Retirement, benefits and the neutrality of the pension system	1
3. Individual decisions to retire	2
4. Social policy, labour market and demographic structure	4
5. Intergenerational equilibrium	6
6. Pensions and poverty distribution.....	8
7. Four dimensions of a pension system's neutrality.....	11
8. Concluding remarks.....	12
Bibliography.....	13

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1. Introduction

Retirement decisions affect individual income as well as the welfare of the rest of the population. The labour market plays a role at both levels of analysis of retirement decisions. Individual tax/benefit analysis assumes that overall expenditure on pensions does not matter. Taking care of it is left to various institutions. Yet, individually rational decisions can be irrational at the macro level. This situation not only generates huge fiscal problems but also makes the rationalisation of pension systems very difficult. Any proposal aiming at macro rationalisation is inevitably perceived as an attack on the social achievements of the people.

It is not intuitive for individuals to think in terms of any macro system in which they participate. On the contrary, it is natural for them to perceive participation as a social right to receive benefits or as a 'game' to be played with or even against the system. The more cleverly they claim their rights the better off they are as individuals. That such an intuitive individual perception of participation is to be expected psychologically ignores the problem of whether the system is sustainable and fair from an intergenerational viewpoint. The more skilfully they claim their rights the worse off they are as members of society. This latter dimension of the problem is particularly relevant today: in the wake of the second demographic transition, the financial pyramid fuelling pension systems has ceased to exist.

The traditional European (Continental) way of thinking about various social benefits, including pensions, is dominated by an attempt to provide needy groups of persons with help at a level perceived to be socially just. The level is typically defined as a percentage of a statistical measure of the labour income of other citizens. Sharing income with those who need it is natural and good, as long as society knowingly participates in taking decisions on the scale of such redistribution. A problem arises when the social utility of transferring a part of society's income becomes smaller than the disutility of reducing the disposable income of the working population.

2. Retirement, benefits and the neutrality of the pension system

Some researchers discuss the replacement of work income with pension benefits and underline that actuarial neutrality is a necessary condition for eliminating the impact of the pension system on labour supply decisions (see Góra & Palmer, 2004 or Blöndal & Scarpetta, 1999). In a work edited by Gruber & Wise (1999) – on the example of 11 industrialised countries – a strong correlation between the age at which benefits are available and other features of the pension system and actual retirement age has been found (being measured by the *hazard rate*, i.e. the conditional rate of the labour force leaving at a certain age). The authors conclude that social security programmes contribute to a decline in the labour force participation of older persons and changing the provisions of social security programmes that induce early retirement would play a key role in encouraging a longer worklife.

European systems operating in the 1990s especially influenced the lower rate of economic activity of older cohorts. Even at relatively low ages, the systems guaranteed a high replacement ratio. Moreover, the increase of monthly benefits connected with additional years of work was small. In fact, a longer worklife meant a hidden tax on wages.

Neutrality, if analysed at the individual level, can be compared with the concept of actuarial fairness. Quaisser & Whitehouse (2006) clearly distinguish actuarial fairness, defined as the equivalence of the present value of lifetime contributions and the present value of lifetime benefits, and actuarial neutrality, defined as a marginal concept relating to the effect of working an additional year.

In a pension system based on individual accounts, actuarial fairness is normal. If the system is universal, which means if it covers the entire population using the same rules for everybody, then it is also neutral. Without going into the details, this report assumes that in the systems that are universal and entirely based on individual accounts the two concepts – namely *fairness* and *neutrality* – converge.

3. Individual decisions to retire

Individual decisions on labour supply are based on a conventional trade-off between leisure and income. In the case of individuals who are in the last phase of their economic activity, that trade-off should be defined within a framework taking into account two additional factors related to individual age: the ability to work (individual health status and its perception), and as age progresses the availability of various types of income that do not require work.

On the demand side of the labour market, an additional factor that is to be taken into account for persons aged 55+ is the relation between productivity and wage as a function of age. Labour demand decreases together with an increase of the wage–productivity gap. That issue is analysed in Walewski (2008). Here the problem is reduced to the external perception of health status. Another factor is the availability of schemes that can cover the cost of firing/retiring elder workers.

Economic activity – especially among older workers (aged 55 and older) – is determined by the following three groups of factors:

- X, a set of economic factors that determine the exchange of leisure for income;
- Y, a set of health status factors that affect the ability to work (where Y_S denotes individually perceived health status and Y_D signifies externally perceived health status); and
- Z, a set of institutional factors that generate an additional transfer-financing transition from activity to inactivity.

Economic factors (X) are well described in economic literature so these are not discussed here. Health status (Y) and institutional (Z) factors also affect labour supply and demand for younger groups of workers. Yet factors other than those belonging to X do not play a major role and their influence is not related to ageing. For simplicity, this report does not discuss the possible difference between individually and externally perceived health status, so the assumption is made that $Y_S = Y_D$.

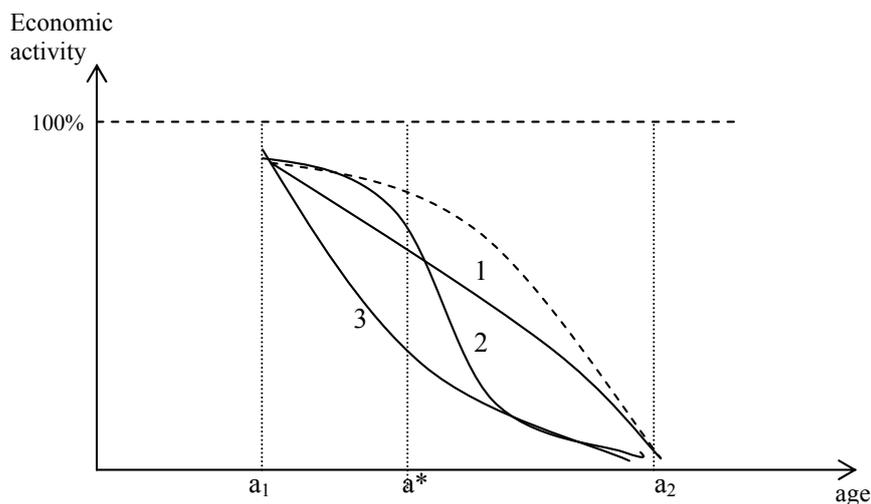
Within this general conceptual framework, the employment rate of persons aged 55+, and hence their retirement decisions, can be expressed as the following simple model:

$$E = E(X, Y, Z)$$

In the pre-retirement group of workers, unemployment is often substituted by retirement, so economic activity and employment converge with age. Workers are either employed or retired (early retirement or regular retirement) or claiming various pre-retirement benefits. The latter is a politically correct term for unemployment benefits that do not require the claimant to be actively seeking and able to take a job. Bearing in mind that for an individual at a particular moment the economic factors and health status are given, economic activity is determined by institutional factors affecting both employees and employers.

Economic activity by age and the influence of institutional factors are illustrated in Figure 1. Until a certain age, shown in the figure as age a_1 , there is no age-related possibility to claim any benefits. Individuals older than a_2 cannot continue working due to age. In between, workers can choose whether to keep on working, claim partial old-age benefits, claim other benefits or retire. The more generous the system is (higher benefits that are easier to claim) the earlier workers take that decision. Individual decisions to withdraw from the labour market contribute to a reduction of overall economic activity.

Figure 1. Economic activity by age and institutional factors (Z)



Given economic (X) and health status (Y) factors, we can assume the following curves that illustrate changes in economic activity in the labour market at older ages in response to institutional factors (Z).

If institutional factors did not exist or if they were irrelevant (with virtually no possibility of replacing work income through a transfer) we would observe a dotted line. This line represents the highest economic activity possible when factors X and Y are given. Older persons keep working even until a_2 but only if they are able to work¹ and if they still consider that it makes sense to exchange leisure for income.

¹ It should be recalled that this means that they are also demanded as workers.

The three curved, solid lines in Figure 1 represent various cases of reduction of economic activity occurring as a result of institutional factors. Curve 1 shows how the activity could change in the described age brackets after the introduction of different transfers available from age a_1 . There is a flexible retirement age and there is no prospect of combining work income with retirement income received at the same time.

As a comparison, curve 2 illustrates the effects of implementing a regulation that sets a certain minimum retirement age, indicated by a^* .

Curve 3 illustrates the situation wherein the retirement age is low and incentives to retire are strong for individuals as are those for employers to ‘get rid’ of elder workers. The same can be observed when retirement benefits can be easily combined with work income. If the level of pension benefits – as in many of the existing defined benefit systems – depends on earnings in the last years of a professional career and the accrual rate is high, then economic activity just before retirement could be even higher than in the previous case and it drops down just after workers pass the age of a_1 .

People often stop working because of worsening health status. It is also possible that declining work activity is correlated with an individual’s family situation or cultural aspects in some societies. Among the papers dealing with health issues, Bazzoli (1985) and Bound & Waidmann (1992) are notable. The latter publication also contains an analysis of subjective health-status assessment as a factor usually taken into consideration when labour supply decreases.

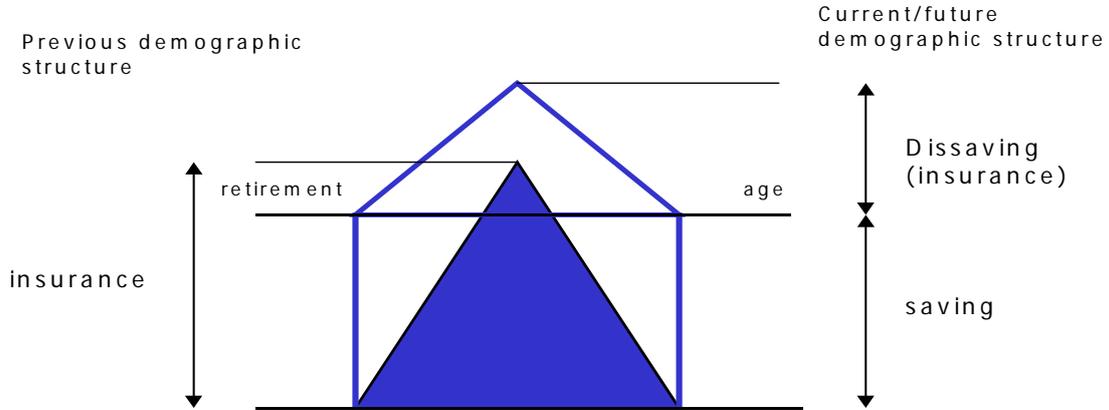
Irrespective of the specific rationale behind it, a decision to retire before reaching an age when individuals are really not capable of working increases the costs borne by those workers who continue being economically active.

4. Social policy, labour market and demographic structure

The design of traditional pension systems is rooted institutionally and conceptually in the situation observed in Europe many decades or even a century ago. The key goal at that time was to support the very old, who would not survive without some assistance. Family structure proved insufficient to provide them with such help, so the need for institutionalised help financed by the rest of society was recognised. Since then, life expectancy has substantially increased (including disability-free life expectancy). At the same time, a couple of post-war decades of strong economic and demographic growth have led to a lowering of the effective retirement age. Consequently, it is no longer the case that those who retire are very old. The social rationale behind the system is much less robust. Moreover, demographic changes have led to the situation in which the vast majority of those who enter the labour market as workers leave it as pensioners. Hence, the nature of the system has altered from insurance (many people pay contributions and few people receive benefits) to saving (people receive back what they paid in plus interest – and if not, those who continue to pay have to pay more) (see Figure 2).

The pension system assumes obligatory participation, which is a special case within social policy measures because it is based on redistribution between generations. The young (working generation) produce and share a portion of their income with the old (retired generation), who do not produce but receive a portion of the product of the young. Each of the generations is first a working generation and then a retired generation. Regardless of the particular type of pension system, the level of pension benefits depend solely on the level of burden placed on the working generation and on the demographic structure. This relationship can be temporarily disrupted but then the welfare of subsequent generations varies. Given the current and projected changes in demographic structures, that means a reduction in the welfare of subsequent generations.

Figure 2. Demographic structure and the pension system



The demand side of the market is determined by the number of workers, their productivity and the contribution rate. The number of retirees determines the supply side. This can be presented as a simple model, shown in Equation (1).

$$D = c \bar{w} L^W \quad (1a)$$

$$S = z \bar{w} L^R \quad (1b)$$

where D is demand, S is supply, c is the contribution rate, z is the replacement rate, w (bar) is the average wage, L^W is the number of workers and L^R is the number of retirees.

Expressing both demand and supply in terms of wages does not narrow the model to non-funded pension systems, but is rather just measuring demand and supply.

In equilibrium, the replacement rate is given by Equation (2)

$$z = c \frac{1}{d} \quad (2)$$

where d is the dependency ratio ($d = L^R/L^W$).

Given the demographic structure and the institutional framework (retirement age and so forth), the replacement rate depends on the contribution rate alone and does not depend on the type of pension system or its design. The pension market determines the shares of GDP allocated to each generation.

In the short run, Equation (2) can be disrupted. More specifically, the replacement rate can be kept above the sustainable level through further increases of pension system debt, which will never be repaid. This is a temptation for politicians all over the world (and one to which they often succumb). In the long run, however, owing to the obvious limits for raising the contribution rate, a future reduction of the replacement ratio is inevitable with or without reform. So there are only two options, being either

- reform, which involves reducing pension expectations (expressed as the replacement rate) *ex ante*; or
- no reform, which will lead to cuts in pensions *ex post*.

Choosing the latter would just be cheating the current generation of workers. It should be made clear that a small working population will never be able to provide a large retired population with relative per capita income at the level comparable to what was possible in the case of a large working population sharing its product with a small, retired population. This situation can be overcome only if the consecutive working generations accept a downward trend in rewards for labour and capital.

The relative level of pensions (z) is determined by the structure of the population and the share of remuneration for labour and capital, which is taken from the working generation. Policy measures other than shifting expenditure to pensions from other items cannot change that level. The choice of any particular design of the pension system cannot increase the relative level of pensions. On the other hand, the choice of pension system design can affect the absolute level of pensions. If a pension system contributes to stronger GDP growth, then such a system can pay out higher pensions in absolute terms. A pension system that slows down the growth pays lower pensions.

5. Intergenerational equilibrium

Difficulties faced by traditional pension systems because of the changing demographic (and hence financial) pyramid have led to efforts aimed at pension reform. These efforts can be driven by two possible goals:

- channelling the flow of contributions from workers to retirees through financial markets, which can possibly increase national savings and contribute to financial market development; and
- reintroducing intergenerational equilibrium, which can reduce or at least stop the escalation of the burden on the working generation.

Both goals are worth reaching. The second one, however, is the goal at which we are really aiming. Also, politicians are reluctant to put their careers at risk to reach the first goal. There are instances in which they do, as we observe in a number of countries, since they have to do something to stop the growing burden imposed on the working generation by the pension system. Moreover, the first goal, although it is not the goal of pension reform, can help to reintroduce intergenerational equilibrium, since financial markets effectively cut down the inflated pension expectations (replacement rates) that are embedded in traditional pension systems. So channelling pension contributions through financial markets can lead to positive social outcomes even if promoted for reasons not related to social goals.

The welfare of the entire population – including future generations – should be valued equally. Each generation prefers its own welfare to the welfare of future generations. Politicians are aware of that and provide their voters with methods to pass the costs of their welfare onto subsequent generations. The game can be played until the point at which one generation refuses to pay the inherited bills. This can be done either directly (although rather unlikely) or indirectly. In the latter case, diminishing motivation on the part of the working generation may lead its members to limit their economic activity or disguise it.

The condition for long-term intergenerational equilibrium is

$$\frac{GDP^R}{GDP} = \text{const} \quad (3)$$

where GDP^R is the share of GDP allocated to the entire retired generation.

The ratio can vary year by year but in longer intervals, it must be constant. If not, then the welfare of one generation will be preferred to the welfare of another one. Keeping the ratio constant is the role of the pension system. A changing demographic structure triggers the need for adjustments to the system in order to keep the ratio constant. Traditionally, the adjustment has been left for discretionary policy decisions. This type of exogenous adjustment has proven inefficient since politicians try to avoid decisions that can be badly perceived by the public. So even if recommended by experts, politicians tend not to take the necessary decisions unless the system is on the verge of collapse.

The adjustment can be also achieved automatically, without the need to take political decisions. This endogenous adjustment is possible if the entire system is based on individual accounts. Such a system of accounts can but does not necessarily need to use financial markets. Using individual accounts makes the present value of individual contributions equal to the present value of pension benefits, and consequently, the present value of the entire flow of contributions equals the present value of the flow of benefits. The system adjusts automatically providing the society with stable security. The welfare of each subsequent generation is not affected. The remuneration of production factors is not influenced by the pension system. The economy works as if the pension system does not put any burden on the people.

The design of the new system is not based on the opposition of social and economic goals. On the contrary, the design combines the two types of goals by focusing on long-term intergenerational equilibrium, which is both an economic and social aim. From the above viewpoint, it can be said that the key purpose of pension reform is to let pension expectations adjust *ex ante* in order to avoid the need to reduce pensions *ex post*.

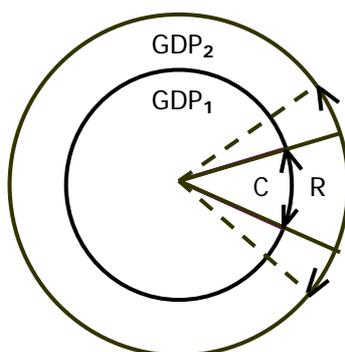
The relative level of pensions is given by the contribution rate and the demographic structure. Inflated pension expectations lead to an increase of contributions; hence, inflated pension expectations lead to lower (*ceteris paribus*) remuneration of labour and capital, and thus to falling employment and lower productivity growth. The main goal of pension reform is to adjust pension expectations to the abilities of pension systems to pay benefits given the demographic structure and the contribution rate. Figure 3 illustrates the intergenerational equilibrium achieved when pension expectations constantly equal the benefits paid, which is equivalent to the condition that the share of GDP allocated to the retired generation is constant over time.

In Figure 3, C_1 refers to the contributions (sum) paid by a generation during its activity period (they produce GDP_1), R_1 denotes the returns generated in the pension system and C_1+R_1 indicates the benefits (sum) received out of GDP_2 by the generation who produced GDP_1 .

Each generation shares its product with the previous generation. That intergenerational exchange can be organised in various ways but the basic economic nature of that exchange remains unchanged irrespective of the particular approach taken. The old cannot get anything more than a portion of the product of the young. The young can share with the old voluntarily (through family support or charity) or they may be obliged to pay taxes (a mandatory system); they may buy assets accumulated by the old (voluntary savings) or they may be obliged to buy assets from the old (mandatory system). In all these cases, a system consisting of two

generations is in equilibrium if $C_2 = C_1 + R_1$. In other words, the system is in equilibrium if the share of GDP allocated to the retired generation GDP^R is constant over time ($GDP^R/GDP = \text{constant}$).

Figure 3. Intergenerational equilibrium



6. Pensions and poverty distribution

Institutional factors are highly diversified across Europe. Country-specific regulations determine the division of current GDP between active and inactive citizens. The higher the share of GDP allocated to the inactive, the lower is the remuneration of production factors supplied by the active. This situation has a number of consequences. Among them are the effects of economic growth, conditions in the labour market and the distribution of poverty. The latter consequence is discussed in more detail below.

Old-age pensions traditionally aim at the alleviation of old-age poverty. Historically, the redistribution from the young (working generation) to the old (retired generation) was not only natural but also easy. When the demographic pyramid still existed, the young were not just restricted to those who produced – their population was as numerous as that of the old. This is no longer the case. Nowadays, the scale and methods applied in this area should be critically rethought. Is the scale of redistribution from the active to the inactive appropriately determined? Is the old-age pension channel the best one for delivering a system of redistribution aimed at poverty alleviation? Answering these questions is among the preconditions for designing a pension scheme that suits current social needs.

Among the EU member states, older persons are those most at risk of poverty in 9 of the 15 old member states. Older women need particular consideration in this area. Yet the situation is different in some of the new member states that experienced transition from centrally planned to market economies at the beginning of the 1990s – e.g. Poland and Hungary. Economic and social policy decisions made at that time led to a situation in which pensioners became a relatively better-off segment of society, in comparison for instance with the unemployed or younger persons with children. Table 1 provides information on the risk of poverty by age group in European countries.

Poverty risk, as presented by Eurostat data, shows that pensioners are typically at risk of poverty but an important additional phenomenon should be noted. As shown by the shaded cells in Table 1, in some new member states, namely the Czech Republic, Lithuania, Hungary, Poland, Slovakia and to lesser extent Bulgaria, Latvia and Romania, the pattern we observe is the

opposite. For various reasons this report does not analyse here, the same pattern is observed in the Netherlands. Those persons aged 65+ are less exposed to the risk of poverty than are younger age groups. The group exposed to that risk the most are new entrants to the labour market. A similar picture of poverty in both transition and post-transition countries can be found in Klugman et al. (2002) and for Poland in World Bank (2004). It is worth noting that a comparable pattern, while less strong, can be observed in Scandinavian countries: there again, the risk of poverty is higher among the newcomers to the labour market than among pensioners.

Table 1. Poverty risk in EU (2005)^a

	0-15	16-24	25-49	50-65	65+
EU-25	20 ^b	21 ^b	14 ^b	13 ^b	(18 ^b)19
EU-15	20 ^b	21 ^b	14 ^b	13 ^b	(19 ^b)20
BE	19	17	11	11	21
BU	22^b	20^b	14^b	10^b	16^b
CR	18	12	11	6	5
DK	10	29	10	5	18
DE	13	14	12	13	15
EI	21	18	16	18	20
IE	22	19	14	20	33
EL	19	23	15	18	28
ES	24	18	16	17	29
FR	14	18	11	10	16
IT	24	23	16	15	23
CY	12	12	10	14	51
LV	21	19	17	20	21
LT	27	23	19	18	17
LU	20	15	13	8	7
HU	19	17	14	10	6
MT	22	11	13	13	15
NL	16	16	10	8	5
AT	15	13	11	10	14
PL	29	26	21	16	7
PT	24	20	17	18	28
RO	25	22	16	13	17
SI	9 ^c	11 ^c	8 ^c	9 ^c	19 ^c
SK	18	17	14	8	7
FI	10	22	8	9	18
SE	8	23	8	5	11
UK	22 ^c	18 ^c	13 ^c	16 ^c	24 ^c

^a The share of persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income (after social transfers).

^b Data for 2004

^c Data for 2003

Source: Eurostat.

The observation about the risk of poverty being higher among the working generation than the retired generation sheds new light on redistribution from the young to the old. Those who finance redistribution suffer from poverty more than those who are being financed. Is this a

post-transition phenomenon or a general direction of changes in Europe? This question cannot be answered based on the Eurostat data quoted above. Yet, these observations help to explain the greater determination of new member states in reform efforts compared with the old member states. Table 2 illustrates the same pattern of poverty (measured by poverty incidence) based on another source of data.

Table 2. Poverty incidence in Poland, 2001

	Extreme poverty	Moderate poverty
0-14	13.0	21.0
15-24	11.1	17.7
25-44	8.6	14.3
45-64	5.4	9.4
65+	3.7	7.1
Average	8.6	14.2

Source: World Bank (2004).

Although the effects of lower poverty risk and poverty incidence among the older population than among those of working age cannot be directly found in Eurostat data as provided in Table 1, this effect can be – to an extent – seen in results obtained by Dang et al. (2006). These results lead the authors to conclude that in the OECD countries they have investigated, benefits are targeted at the elderly, which leaves little resources left for policy priorities that are not age-related.

Redistribution is needed in modern societies. With respect to the pension system, the young have to share their product with the old. There is no escape from that. With respect to thinking about socially effective redistribution, we should rethink not only its scale but also the methods. Redistribution financed through the pension system has a number of disadvantages as compared with budget financing:

- Tax financing has a broader redistribution base than a contributions base.
- Taxes are paid out of all kinds of income while contributions are paid out of labour income alone.
- Taxes (in some instances) are progressive while contributions are linear; thus, the rich contribute more, which is essential for redistribution.
- Taxes can be adjusted constantly while the pension system creates long-term liabilities.
- Taxes create distortions by nature while contributions do not need to.
- Redistribution is shifted away from pension systems and moved it to the state and/or regional budgets.

Some researchers suggest the opposite approach, namely a more tax- and less contribution-based financing of pensions (see Barr, 2006; Barr & Diamond, 2006). Such an approach takes a similar line as the changes discussed in this report. Contributory pensions are inefficient from the viewpoint of redistribution, so redistribution should be financed through tax systems. Nevertheless, there is still a role to be played by contributions. The role is that of income allocation over the individual life cycle. A clear separation of the two, more specifically of redistribution and income allocation is one of the key conclusions of the approach presented here.

On the top of that, the general change of the demographic structure around the world has caused severe fiscal problems for many countries. This change can also be seen from the standpoint of being able to achieve the traditional social goals of the pension system. In this regard, two important observations are worth mentioning:

- In the past, the minority – nowadays the vast majority – of those who pay contributions to the system as workers, afterwards receive benefits as retirees. This means that in the active phase of an individual's life, participation in the pension system is very similar to long-term saving.
- In the past, the pension system channelled GDP to the very old, who were unable to earn a living and finance consumption on their own. These days, those who retire are still able to work and earn, and on average, they have many years of life left to live.

Taking the above into account provides additional rationale for pension reforms aimed at intergenerational equilibrium.

7. Four dimensions of a pension system's neutrality

Pension system design is one of the key factors determining individuals' decisions about labour supply as well as employers' decisions about labour demand. These factors have a direct impact on older workers (aged 55 and above). More indirectly, pension system design affects the entire supply and demand for labour.

If the pension system were 100% neutral, then it would not have negative effects on growth or employment. Yet there are good reasons for running pension systems even if they are not 100% neutral. Still, given the scale of transfers through pension systems, a reduction of the distortions they generate is one of the key social and economic goals.

Pension system design is neutral if the four neutralities below are achieved.

- *Macro neutrality.* In this state, the remuneration of production factors is not affected, but it requires the following condition to be fulfilled:

$$\text{GDP}^R/\text{GDP} = \text{constant over time}$$

where GDP^R denotes the share of GDP allocated to the entire retired generation.

- *Micro neutrality.* Here, income allocation over individual life cycles is not affected, but it requires the following condition to be fulfilled:

$$\text{PV}(c) = \text{PV}(b)$$

where c and b are the sums of contributions and benefits (respectively).

- *Psychological neutrality.* In this neutrality, the perception of income allocation is not affected, but it requires the following condition to be fulfilled:

$$r_{\text{PS}} = \beta$$

where r_{PS} is the rate of return generated within the pension system and β is the individual discounting rate (time preference).

- *Social neutrality.* At this point, income distribution is not affected in the population, but it requires moving redistribution away from the pension system to the budget; there is no special treatment within the system such as early retirement for selected groups of workers.

Individual accounts – irrespective of the particular design applied² – provide the system with stability (Equation 4) at the macro level, and safety, transparency and fairness at the micro level (Equation 5):

$$PV_t(C) = PV_t(B) \quad (4)$$

where C and B are the contribution and benefit sums.

The present value of the sum of benefits paid out from the system equals the present value of the sum of contributions paid into the system. Both sums can fluctuate. In order to smooth fluctuations technical reserves need to be created:

$$PV_t(c_i) = E[PV_t(b_i)] \quad (5)$$

where c_i and b_i are individual contributions and benefits.

The expected value of individual benefits (annuities) received from the system equals the present value of individual contributions paid into the system.

Aiming at neutrality can contribute to stronger, sustainable growth and higher employment. The dimensions of neutrality converge on each other. In a sense, they mean the same thing. Distinguishing them makes sense, however, since divergence from neutrality can be better analysed for each of the dimensions separately.

8. Concluding remarks

The pension system creates an institutional structure for intergenerational exchange. The structure affects the entire population – the working population as well as retirees. Each generation first becomes the working generation and then subsequently the retired generation. There are good reasons for redistribution from the young to the old but there is no good reason for redistributing from one generation to another. Intergenerational equilibrium requires that the welfare of all generations has the same value.

Traditional pension systems tend to promise their participants benefits that, in order to be paid out (at the macro level), will require increasing the share of GDP allocated to the retired generation; consequently, such systems will reduce the share of GDP left for the remuneration of production factors. If nothing is done or if the measures taken are insufficient, then each year there will be a trade-off between two undesirable decisions – either a reduction of pensions or a reduction of net wages or a combination of the two, which will progressively become more dramatic.

The level of pensions relative to wages is given by the demographic structure and the contribution paid by each working generation. Hence, there is little room left for political discretion. The pension system is in trouble if pension expectations are above that level. Pension reform can change that if it leads to a reduction of pension expectations. If expectations are not adjusted to the equilibrium level, then the pension system runs a permanent deficit that may in turn result in a default. Even if that is not the case, a worsening of the welfare of workers is the price for continuing to keep pension expectations inflated.

² The same effect will arise for FDC (financial defined contribution) as well as NDC (non-financial defined contribution).

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About AIM (Adequacy & Sustainability of Old-Age Income Maintenance)

The AIM project aims at providing a strengthened conceptual and scientific basis for assessing the capacity of European pension systems to deliver adequate old age income maintenance in a context of low fertility and steadily increasing life expectancy. The main focus is on the capacity of social security systems to contribute to preventing poverty among the old and elderly and more generally to enable persons to take all appropriate measures to ensure stable or “desired” distribution of income over the full life cycle. In addition it will explore and examine the capacity of pension systems to attain broad social objectives with respect to inter- and intra generational solidarity.

Furthermore it will examine the capacity of pension systems to allow workers to change job or to move temporarily out of the labour market and to adapt career patterns without losing vesting of pensions rights. The project will also address the specific challenges with respect to providing appropriate old age income for women.

A general objective of the research project is to clearly identify and analyse the potential trade-offs between certain social policy objectives and overall stability of public debt.

AIM is financed under the 6th EU Research Framework Programme. It started in May 2005 and includes partners from both the old and new EU member states.

Participating institutes

- Centre for European Policy Studies, CEPS, Belgium, coordinator
- Federal Planning Bureau, FPB, Belgium
- Deutsches Institut für Wirtschaftsforschung (German Institute for Economic Research), DIW, Germany
- Elinkeinoelämän tutkimuslaitos, (Research Institute of the Finnish Economy), ETLA, Finland
- Fundación de Estudios de Economía Aplicada, FEDEA, Spain
- Social and Cultural Planning Office, SCP, Netherlands
- Istituto di Studi e Analisi Economica (Institute for Studies and Economic Analysis), ISAE, Italy
- National Institute for Economic and Social Research, NIESR, United Kingdom
- Centrum Analiz Społeczno-Ekonomicznych (Center for Social and Economic Research), CASE, Poland
- Tarsadalomkutatasi Informatikai Egyesüles (TARKI Social Research Informatics Centre), TARKI, Hungary
- Centre for Research on Pensions and Welfare Policies, CeRP, Italy
- Institute for Economic Research, IER, Slovak Republic
- Inštitut za ekonomska raziskovanja (Institute for economic research), IER, Slovenia