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CFA Institute, as a membership organization of investment professionals, is keenly interested in the health of the financial system and its trajectory in the years to come. This is why we launched a leadership initiative called “The Future of Finance.” As we interviewed industry leaders around the globe about topics of importance for the industry — and ultimately society as a whole — one of the most pressing topics was the fear of a looming retirement crisis.

It is, however, a difficult challenge to determine the best way forward for a secure retirement system as it is a subject that spans government politics, employer practices, individual investor education, and cultural differences. When Nobel laureate Bill Sharpe spoke at the CFA Institute 67th Annual Conference in 2014 on Past, Present, and Future Financial Thinking, he talked about his interest in retirement research, particularly the decumulation phase for individual investors, saying, “It’s a really hard problem — the hardest problem I’ve ever considered — because it’s multidimensional.”

Demographic shifts, behavioral biases, and skepticism of markets all intersect here. As Nobel Laureate Robert Merton notes in The Crisis in Retirement Planning (Harvard Business Review, July 2014), the shift to defined contribution plans in developed markets has made this challenge much more severe and requires that “we rethink the way we engage savers and invest their money.”

In our 2015 Global Market Sentiment Survey, CFA Institute members were asked about the most underestimated risk that could negatively impact global capital markets in the next five years. Twenty percent chose the impact from the demographic trend of aging populations, while 14% selected pension plan shortfalls and low levels of retirement savings. Quite simply, retirement is an issue too big not to address.

Observations like these led us to consider how can we contribute meaningfully to this dialogue and begin to make a difference. What can and should the asset management industry do, given the high stakes for our clients and our profession?

CFA Institute has published articles in the Financial Analysts Journal and through our Research Foundation on the subject of pensions for 70 years. Various pension design models have been proposed in the literature; however, we still lack a set of established best practice guidelines for retirement schemes. This paper offers a set of retirement design principles that we hope will form the basis for debate and discussion amongst our members and beyond. It was developed at the recommendation of our Future of Finance Advisory Council, comprising financial industry luminaries from around the world. As the author notes, each country is at a different stage in this conversation and faces different cultural dynamics with its populace. For some readers these principles may sound very familiar, while others may consider them controversial.

We were pleased to engage Mercer in this project given the growing influence of their Melbourne Mercer Global Pension Index. We are glad to share these principles as a foundation to begin a meaningful dialogue among our member network and others with interest in this subject to assess and evaluate what changes are needed in their own systems.

We look forward to a healthy and fruitful debate that can bring us closer to solutions for the benefit of society.

Regards,

Paul Smith, CFA
President and CEO
CFA Institute
The provision of financial security in retirement is critical for both individuals and societies as most countries are now grappling with the social, economic and financial effects of ageing populations. The major causes of this demographic shift are declining birth rates and increasing longevity. In short, this means that a growing proportion of every country’s population will be in retirement and therefore not directly contributing to the economy’s production. Yet at the same time, most retirees are looking to maintain their pre-retirement living standard and to have access to quality medical and aged care services in their later years.

Inevitably this is placing financial pressure on current retirement systems (whether they be in the public or private sector), whilst the growing importance of the aged population also means there is increasing political pressures for these services to be provided.

While these demographic effects have been evident for some years, it is only in recent times that many countries have appreciated the significance of them. Although the current extent of these changes varies between countries due to local factors, the impending retirement of the baby boomers in many developed economies has highlighted the problem.

Significant changes will be needed as an increasing proportion of the population in the future will have retired from employment and be relying on their savings and/or the government. In light of this challenge, is there an ideal retirement system to respond to these problems and, at the same time, deliver an outcome that provides adequate benefits that can be sustained over the longer term and is trusted by the community?

This report, prepared by Mercer for the CFA Institute, is designed to answer this question. However, it is worth noting at the outset there is not a single retirement system that can be applied to all countries. Each system must take into account that country’s particular social, economic, cultural, political and historical circumstances, including its stage of economic development, the breadth and depth of its capital markets, the current state of its pension system, as well as the balance between informal and formal labor markets.

Notwithstanding these important differences, there are certain principles, features and characteristics that are likely to lead to better outcomes for all those involved. This report concentrates on these high-level objectives, leaving it to each country to apply them to its own situation for the challenging years ahead.
TEN PRINCIPLES FOR AN IDEAL RETIREMENT SYSTEM

1. The government must establish clear objectives for the whole retirement system, including the complementary roles of each pillar, and incorporate the provision of a minimum income to alleviate poverty amongst the aged population.

2. A minimum level of funding should be made into a pension system for all workers with contributions by employers, employees and the self-employed, as well as for those of working age who are receiving certain forms of income replacement. In effect, this means every worker will have a retirement account with an entitlement to future benefits.

3. There should be cost-effective and attractive default arrangements, both before and after retirement, for individuals who do not wish to make decisions.

4. The overall administration and investment costs of each pension arrangement should be disclosed with some competition present within the system to encourage fair pricing.

5. The retirement system must have some flexibility as individuals live in a range of personal and financial circumstances. This flexibility includes recognizing that retirement will occur at different ages and in different ways across the population.

6. The benefits provided from the system during retirement should have an income focus but permit some capital payments or withdrawals during retirement, but without adversely affecting overall adequacy.

7. Contributions (or accrued benefits) at the required minimum level must have immediate vesting and portability. These accrued benefits should only be accessible under certain conditions, such as retirement, death or permanent disability.

8. The government should provide taxation support to the funded pension system in an equitable and sustainable way, thereby providing incentives for voluntary savings and compensating individuals for the lack of access to their pension savings.

9. The governance of pension plans should be independent from the government and any employer control.

10. The pension system should be subject to appropriate regulation including prudential regulation of pension plans, communication requirements and some protection for pension scheme members.
3. SETTING THE SCENE

A single retirement system, whether it is publicly or privately funded, does not exist in isolation from other financial resources in retirement. There are always multiple sources of income or financial support and it is therefore important that a holistic perspective be adopted when considering the development of any retirement system.

In its influential report *Averting the Old Age Crisis*, the World Bank (1994) recommended a multi-pillar system for the provision of old-age income security, comprising:

**Pillar 1:** A mandatory publicly managed, tax-financed public pension.
**Pillar 2:** Mandatory privately managed, fully funded benefits.
**Pillar 3:** Voluntary privately managed, fully funded personal savings.

They noted that each pillar would have a different objective, as follows:

- The first pillar would have the limited objective of alleviating old-age poverty and provide protection against a range of risks such as a long period of low investment returns, recession, inflation and private market failures. It would also have a redistributive function and would be financed by general taxation on a pay-as-you-go basis.
- The second pillar would be mandatory, fully funded and privately managed. A successful second pillar should reduce demands on the first pillar. This pillar could be based on personal savings accounts or occupational plans.
- The third pillar would be voluntary and enable individuals to make additional savings for more income or insurance for their old age.

Subsequently, Holzmann and Hinz (2005) of the World Bank extended this three-pillar system to a five-pillar approach.

An important conclusion made by Holzmann and Hinz is that a multi-pillar design is better able to deal with the multiple objectives of a retirement system than concentration on a single pillar. It is also more effective in responding to the range of economic, political and demographic risks that all retirement systems will face over time.

Although Holzmann and Hinz extended their framework to five pillars, the OECD (2013) continues to work with the following three tiers:

**First tier:** A redistributive tier that is mandatory and designed to provide pensioners with some absolute, minimum standard of living, thereby preventing poverty. This pension is normally paid from general taxation and may provide a basic universal pension or be subject to means testing at the individual level, or a combination of both approaches.
Second tier: The second tier is designed to provide some targeted standard of living in retirement related to the working years. It is generally considered to be a mandatory system and may be offered through the public or private sectors. These benefits may be provided through a defined benefit or defined contribution arrangement. The benefit provided is normally related to the level of contributions, income levels and years in the workforce. These benefits may be fully funded, partially funded or operate on a pay-as-you-go basis as part of a social security arrangement.

Third tier: This tier is voluntary and provided by the private sector. It may be offered through occupational schemes and/or private savings accounts. This tier is fully funded and often operates in conjunction with the second tier.

For the purposes of this report we will assume the following four sources of income may be provided in retirement:

1. A government-funded public pension with the primary objective of poverty alleviation amongst the aged. It could be a universal or means-tested pension.
2. A retirement benefit arising from a mandatory funded system related to the working years that could operate through a government social security system, a privately managed system or a combination of both.
3. A retirement benefit arising from voluntary savings initiated by either the employer or the individual and managed through the private system.
4. Savings from outside the pension system that provide additional financial support during old age.

However before discussing elements of the design of these four components, it is necessary to highlight the range of stakeholders in any retirement system and the inevitable tensions that exist between them.

Obviously, the primary stakeholder in each of the pillars is the individual (or household) who expects to receive a benefit at or during retirement. Many individuals will expect to receive an income that enables them to maintain their standard of living in retirement at the same level to which they became accustomed during their working years. However this may be an unrealistic goal. It is also worth noting that financial needs change during retirement. For example, the financial needs or desires for many households may be higher in the earlier years of retirement when the individual’s health is stronger and there is a greater willingness to be active in the community. In later
years, a more passive lifestyle may be adopted that has reduced financial needs. On the other hand, the financial needs in the last years of life may be quite high due to medical or aged-care costs. These actual costs to the individual will also depend on the level of support provided by the government.

The second stakeholder in the overall system is the government or, perhaps more correctly termed, the community at large. With many countries facing an ageing population, health and aged-care costs are expected to rise significantly placing extra strain on the government’s finances. It is therefore in the government’s longer-term interest to limit their responsibility to meet these costs in the future. The government also has an interest in the level of financial support provided to the pension system through taxation concessions. Clearly higher concessions reduce immediate revenue to the government but they may also increase future revenue if retirement benefits are subject to taxation and/or reduce the future cost of any means-tested benefits.

The community also remains an important stakeholder in the design of any retirement system. For example, the taxation arrangements will inevitably benefit some members of the community more than others. It is important that the total pension system is seen to be fair within a generation of taxpayers that, in turn, encourages confidence and support.

Equally important is fairness between generations. For example, it may be considered unfair if a single generation fully finances the pension benefits for both the previous and current generations. This can occur when a country moves from a pay-as-you-go system to a fully funded arrangement. This concern highlights the need for gradual transition arrangements in the reform of all pension systems.

This need for intra-generational and intergenerational fairness should be monitored by the government in any pension reform process so there is transparency and the community can clearly see which group may bear the highest cost and which group is likely to receive the greatest benefits, either in relative or absolute terms.

In most countries, employers are also important stakeholders in the second and third sources of income — that is, the mandatory and voluntary savings within the pension system. In some cases, pension systems represent an important mechanism for attracting or retaining
staff although contributions to the pension system may also represent a significant cost to employers. In voluntary systems, employers often have the right to adjust or discontinue the pension benefits provided to their employees. Hence an increase in the strength of pension regulation can discourage some employers from setting up or continuing a pension plan.

Most private pension arrangements are governed by a group of trustees or fiduciaries. These individuals have an important role to work for the members’ best interests, as distinct from the purposes of the employer, trade union or other third party.

There are always tensions within the design of any pension system. A critical example is the tension between the provision of adequate benefits to retirees whilst at the same time ensuring that the system is sustainable over the longer term. As has been witnessed in some systems, the existing benefits may be overly generous to current retirees (and therefore appreciated!) but cannot be sustained into the future due to the increasing aged population. In these situations it is better to share the risks across the generations rather than placing most of the costs on a single generation.

Another tension relates to who is best placed to bear the risks of the retirement system over the longer term. These risks could be economic, social, demographic, environmental or political in nature. Governments are well placed to bear some of these risks but cannot promise generous benefits forever. Inevitably individuals and/or employers need to be willing to share some of these risks over the longer term. After all, the system is designed to provide retirement benefits over many decades and it is impossible to accurately determine all the risks that lie ahead.

A diversified retirement system is best placed to respond to these risks with the availability of several sources of income to support retirees in a sustainable manner.

**Principle #1**
The government must establish clear objectives for the whole retirement system, including the complementary roles of each pillar, and incorporate the provision of a minimum income to alleviate poverty amongst the aged population.
Although we have highlighted the presence of several income sources, this report will concentrate on the retirement benefits arising from the mandatory and voluntary savings within the pension system. That is, we will not discuss the government pension in detail, apart from noting its value will affect the relative importance of funded pension savings. For example, an overly generous government pension may encourage employees not to save enough for their retirement if they expect the government pension to continue at its current level. It is therefore important that the government pension be set at a level (in terms of its current value) that can continue and withstand reasonable shocks to the economy. That is, the government pension must be robust and sustainable.

The next chapters will consider the principles needed to establish a robust and fully funded pension system that provides benefits beyond the basic government pension so that the majority of aged individuals can retire with dignity and maintain a standard of living that is broadly consistent with their working years.
4. PROVIDING APPROPRIATE BENEFITS

As indicated previously, this report concentrates on the mandatory and voluntary savings within the pension system. However before we consider the particular design features of an ideal retirement system, it is helpful to define the objectives of the system for an individual who has worked full-time throughout his or her career.¹

It is generally accepted that for most workers an ideal income in retirement from all sources is in the order of 65%–80%² of their average revalued income from the whole or latter part of their career.³ An income below this minimum level means the workers are unlikely to be able live in the manner to which they are accustomed. On the other hand, a replacement rate above 80% probably means they have saved more than is required to provide an appropriate level of retirement income.

Notwithstanding this general objective for most workers, three important caveats need to be mentioned:

• These objectives are from all sources of income. As such, it may be appropriate for mandatory systems to have a slightly lower target thereby recognizing the different personal circumstances that will arise. That is, all systems need to accommodate a combination of mandatory and voluntary savings;

• Low income earners should have an objective towards the upper end of this range of percentages, or even beyond it, recognizing there is a minimum income that will provide an appropriate standard of living for those who have been in the fulltime workforce;

• The actual level of the objective for a particular country will also depend on the services provided by the government in a sustainable way. For example, if the government provides universal health care, the level of required income in retirement is reduced.

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¹ Although we will commence with the consideration of a full-time career, we will discuss other career patterns later in this chapter. We are also not considering an individual who has not or cannot work; that individual should receive the government pension that ensures he or she does not live in poverty during retirement.

² For example, Munnell et al (2014), suggest that the retirement income required to maintain pre-retirement living standards is between 67% and 80% of gross pre-retirement income, with the higher rate applying to lower income earners.

³ The period over which the earnings should be averaged can be debated as the early years of income may bear little relevance to an individual’s lifestyle approaching retirement. If a full career average is adopted, the targeted replacement rate should be higher than if the average was taken over the last five years. On the other hand, a lower target can be adopted if the income earned in the earlier years is revalued or indexed through to retirement.
This final point is important as it recognizes that the level of government support during retirement, whether it be through the provision of a government pension, health services or aged-care services must influence the role of the funded private pension system.

It is important to initially consider the appropriate level of benefits provided from all sources, rather than focus on a particular contribution level. In other words, the emphasis should be on the outcomes for retirees and to accept that there are several routes to achieve that outcome with an associated range of inputs. These inputs, which will include Social Security, contribution levels and taxation measures, cannot be prescribed in detail as they will depend on the economic, social and historical background of each country. However there are several principles relating to private pension schemes that can be applied globally and these will be discussed in the following chapters.

The above discussion suggests an overall benefit level that may be appropriate for an individual who has worked full-time throughout his or her career. However many people do not remain in the workforce for the full period whilst others may move between full-time and part-time work for a variety of reasons. It is therefore necessary that any system should be sufficiently flexible to accommodate careers that combine periods in and out of the workforce, as well as income levels that may vary considerably during a career. That is, a system should not be designed to assume all participants have a full-time career for at least 35 or 40 years.

The first step is to recognize that retirement saving happens over many years under a variety of different circumstances, including varying capacities to save. These changing circumstances may include family responsibilities; periods of unemployment, sickness or disability; changing careers; different economic conditions and so on. That is, all systems need to be flexible and adopt a longer-term perspective than a single year.
This approach leads to two important principles:

1. Saving for retirement needs to be considered over a lifetime of earnings. That is, the system needs to be flexible to allow individuals to “catch up” when they have the capacity to do so. One example of this approach would be a lifetime approach to contribution limits rather than annual limit, which can penalize those who are unable to contribute in a particular year or period of their life.

2. Saving for retirement needs to include contributions from income replacement as well earned income. For example, many individuals will receive income replacement during periods of sickness, disability, unemployment, workers compensation or parental leave. An appropriate percentage of this income should be saved for retirement as would occur with their “normal” income.

**Principle #2**

A minimum level of funding should be made into a pension system for all workers with contributions by employers, employees and the self-employed, as well as for those of working age who are receiving certain forms of income replacement. In effect, this means every worker will have a retirement account with an entitlement to future benefits.

These approaches establish a more holistic approach to retirement savings than currently occurs in many systems.

Of course, there remains the question about the “right” level of contributions to provide an adequate retirement income. Unfortunately there is not a single answer as it depends on many factors including the level of the government pension and other government support during retirement, the level of investment earnings, retirement ages and life expectancy. Notwithstanding these variations, it is reasonable to suggest that the minimum mandatory contribution is in the order of 8% of earnings\(^4\) where there is a sustainable universal government pension of at least 35% of the average wage. In systems with a lower universal pension or with a means-tested pension, a higher contribution rate is required. In some systems, this rate may need to be as high as 15% of earnings.

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4. Munnell et al (2014) suggest that the required saving rates in the US ranges from 11% for low-income households to 16% for high-income households, after allowing for the impact of Social Security. The minimum mandatory contribution should be less than these figures to recognise the role of voluntary contributions. It is also worth noting that a minimum figure in the order of 8% is feasible as illustrated by the four countries listed on the next page.
The following examples provide some useful illustrations of current mandatory systems that are fully funded.

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>The minimum employer contribution is currently 9.5% of earnings and this rate is scheduled to gradually increase to 12% of earnings. The government pension is subject to a means test and is 28.6% of the average wage.</td>
</tr>
<tr>
<td>Denmark</td>
<td>The contributions to the quasi-mandatory occupational plans vary but are typically in the order of 10%–14% of earnings. The government pension is 35.6% of the average wage of which about half is a universal pension paid to all retirees and half is subject to a means test.</td>
</tr>
<tr>
<td>Netherlands</td>
<td>The levels of mandatory contributions vary by industry but are typically in the range of 8% and 12% of earnings, generally paid one-third by the employee and two-thirds by the employer. The universal government pension is 29.5% of average earnings.</td>
</tr>
<tr>
<td>Singapore</td>
<td>The contribution rates paid to the Special Account (for retirement) within the Central Provident Fund range from 6% for those under age 35 to 10.5% for those aged 50–55. However additional contributions to the Ordinary Account (some of which is often used for retirement) range from 23% for those under age 35 to 14% for those aged 50–55. There is no government pension.</td>
</tr>
</tbody>
</table>
5. LOOKING TO THE LONGER TERM

It is essential that the ideal pension system is sustainable over the longer term as well as being able to withstand several types of shocks. This chapter outlines some of the features that will ensure that pension systems continue to provide appropriate levels of benefits notwithstanding the uncertain future.

COVERAGE
The first question that must be tackled is “who is covered by the system?”

Traditionally many countries have had a voluntary pension system whereby employers choose whether to set up a pension plan and, if so, which of their employees should be included. Clearly such a system leaves many employees out of the system. Furthermore an employee changing employment could move from one pension plan to another (possibly with some penalties upon transfer) or even move to employment where there is no pension coverage.

The ideal retirement system would ensure that all employees were members of a similar, but not necessarily identical, pension plan so that a portion of their earned income would be saved for retirement. A similar requirement would also apply to the self-employed as these workers also need to save for retirement. Exclusion of the self-employed would establish an unfortunate arbitrage opportunity that could encourage some employers to require their employees to become self-employed as contractors.

In essence, a compulsory system requires a percentage of all earned income to be saved for the future. In other words, the working generation is putting aside funds for its future and is not relying on a future generation.

FUNDING
It is recommended that both the mandatory and voluntary pension programs (that is, excluding the government pension) should be fully funded. That is, contributions should be set aside from the production of this generation of workers and invested to provide for their retirement benefits. This general approach means that each generation is paying for its own retirement thereby reducing financial strain on future governments and future generations.

5. The meaning of full funding is relatively straightforward for a defined contribution arrangement. However for a defined benefit (DB) arrangement, it can be more problematic. It is therefore recommended that DB arrangements require clear funding rules from the regulator together with a relatively short period to restore full funding, should funding fall below the required level.
It is recognized that a transition from a pay-as-you-go system to a fully funded system raises many transitional issues and can generate inequities between generations. It is therefore recommended that any transition to a fully funded system must be gradual.

**INVESTMENTS**

A fully funded pension system will have contributions available for investment. These should be invested with a long-term focus in a range of different asset classes, in different industries and in different geographies. There is not a single asset allocation that is appropriate for all members at all ages. A diverse investment strategy reduces risks and represents an important buffer against future shocks.

As part of this approach, it is also appropriate for pension funds to have a significant portion of their investments in growth assets, a strategy that is likely to deliver stronger risk-adjusted returns over the longer term and so provide improved benefits to retirees.

**RETIREMENT AND PENSION AGES**

Many countries are now increasing their government pension eligibility age or normal retirement age in response to increasing longevity. This represents an important lever in the sustainability of all pension systems. As life expectancy continues to increase in most countries, governments must be willing to continue to adjust the eligibility age for pension benefits. Ideally, this adjustment should be automatically linked to a relevant statistic, thereby taking any political pressure away from the decision. It is also worth stressing that such changes should be gradual and foreshadowed well in advance so that individuals can plan accordingly.

A related factor is the age of retirement from the workforce. In some countries, an official retirement age exists. However, in reality, individuals retire from the workforce at many ages for a range of reasons including their financial position (including pension savings), their health (or that of a partner or parent), a decision by their employer, economic circumstances or other personal factors.

A sustainable pension system would encourage individuals to work longer as life expectancy continues to increase, together with appropriate safety nets for those unable to work. Later retirement has the triple benefits of more contributions, more investment earnings and a reduced retirement period. Hence, transition to retirement opportunities incorporating part-time work to encourage a longer working life should be available within the ideal retirement system.
ADJUSTABLE LEVERS
As noted earlier, many of the future risks facing any pension system are unknown. Some may be suggested from past experience but others are difficult to predict. Therefore, a sustainable pension system must have sufficient scope to adjust certain levers over the short or long term to respond to these risks in a robust but equitable manner.

Some levers that could be used over time to improve the sustainability of a pension system include adjustments to:

- The level of mandatory contributions paid by employers and/or employees
- The level of taxation affecting pension plans and/or benefits
- Eligibility requirements for the government pension
- Eligibility ages for the government pension and/or access to funded pension benefits
- The form of benefits that can be taken from funded pension arrangements
- The indexation of pensions in payment

It is important to note that these adjustments can be applied to most systems and do not rely on a particular form of benefits (such as defined benefits or defined contributions) or a particular level of funding. It should also be recognized that these adjustments should not be carried out in an ad hoc fashion that causes an immediate disadvantage to some members. Rather they should be gradual with a focus on sustainability over the longer term.
The previous chapters outlined the important role of private pensions, including both the mandatory and voluntary elements. It is now appropriate to consider some of the fundamental design features of an ideal private pension system.

**DEFAULT ARRANGEMENTS**
The ideal retirement system will have cost-effective default arrangements available to all workers. This means that members will not have to make any decisions, unless they wish to do so. These default arrangements should not necessarily be at the lowest cost possible; rather they should provide benefits and conditions that are appropriate for most individuals over the longer term.

These arrangements should also provide members with the opportunity to make personal decisions in some or all of the following areas:

- The level of contributions, above the required minimum
- Investment choice, particularly for DC members
- The type and level of any life or disability insurance
- Retirement age

In brief, good default arrangements can provide a sound outcome for most members whilst also enabling members to move away from any or all of the defaults, at their own option.

**Principle #3**
There should be cost-effective and attractive default arrangements, both before and after retirement, for individuals who do not wish to make decisions.

**COSTS**
Costs are one of the most important determinants of the long-run efficiency of a pension system. However as noted by Viciera (2010), there is very little transparency about the overall costs of most pension systems.

This is understandable as pension systems have developed in a variety of ways with a huge diversity of providers (including employer-sponsored, retail, wholesale and mutual arrangements) together with a combination of direct and indirect costs. It is virtually impossible to compare the operating costs of different systems around the world due to the range of benefits provided and the different taxation and regulatory structures that operate.
Nevertheless it is important that every system operates efficiently as in the final analysis, most costs will be borne by the members and thereby affect the provision of their retirement benefits. This desirable outcome may often be achieved through disclosure, competition in the marketplace and/or the evolution of some larger pension arrangements that can gain the benefits of scale.

**Principle #4**  
The overall costs, including administration and investment, of each pension arrangement should be disclosed with some competition also present within the system to encourage fair pricing.

**FLEXIBILITY**  
As mentioned earlier, an ideal retirement system needs to be flexible to accommodate a range of personal circumstances. Whilst this flexibility is desirable at the contribution stage with a lifetime approach, it is also desirable at the retirement stage.

As life expectancy continues to increase and average health at older ages improves, many workers are likely to want to stay in the workforce at older ages. This may be through a move to part-time work or to a portfolio of smaller roles with both these examples representing a gradual move to later retirement. It is important that an ideal retirement system permits individuals to undertake this transition.

This means that an individual should be able to receive a part pension from their pension plan whilst at the same time continuing to receive or make contributions in respect of their part-time employment.

**Principle #5**  
The retirement system must have some flexibility as individuals live in a range of personal and financial circumstances. This flexibility includes recognising that retirement will occur at different ages and in different ways across the population.

**THE FORM OF THE BENEFITS**  
Chapter 3 mentioned that an ideal retirement income may be expressed as a percentage of revalued income from the whole or latter part of an individual’s career. However the financial needs of retirees are not constant and can vary significantly from year to year. It is therefore appropriate to provide for some flexibility in the form of the benefits provided as discussed by both Rocha and Vittas (2010) and the OECD (2012).
In particular, access to a capital sum at, or during, retirement can be very beneficial. This capital sum may be needed for a variety of purposes including medical or dental treatment, the purchase of a car or some other equipment, the remodeling of the home due to a disability, entry to aged-care facilities, etc. It is therefore recommended that within an ideal retirement system a portion of the accumulated benefit (say between 20% and 40%) should be able to be accessed during the retirement years. Of course, such capital payments will affect the income levels but the availability of such payments can make a real difference to the retirement lifestyle, without significantly affecting the overall level of retirement income.

Notwithstanding this desired flexibility concerning the benefit form, it is essential that the major focus of an ideal retirement system is to provide a regular income throughout the retirement years. Several possible income products exist ranging from a lifetime annuity to a flexible drawdown product. A lifetime annuity represents a guaranteed level of income for life provided by a life insurance company which is normally supported by shareholder capital. In contrast, the income from a flexible drawdown product is subject to market movements and the rate of withdrawal by the retiree, which may be prescribed by government. Of course, there are a range of other products between these two extremes; some involving capital guarantees and others involving the pooling of longevity risk.

It should also be added that the main purpose of a retirement system should not be to provide bequests or wealth transfer to the next generation; rather the focus should be on the provision of retirement income for life.

It should also be recognized that retirees face several risks, including market risks relating to investment returns, future inflation, interest rate risks relating to annuity prices, longevity risk as well as counterparty risks. It is desirable that sharing (or pooling) of some of these risks occur within the overall system to protect those who may be subject to the effects of a particular event, such as a counterparty failure or living much longer than expected.

6. In a DB pension scheme most of these risks are borne by the sponsoring employer. However in DC schemes, which are becoming more common around the world, the risks are borne by the individual retiree. The retiree may choose to reduce these risks through the purchase of certain investment or insurance products.
Principle #6
The benefits provided from the system during retirement should have an income focus but permit some capital payments or withdrawals during retirement, but without adversely affecting overall adequacy.

VESTING, PRESERVATION, AND PORTABILITY
In many traditional defined benefit pension plans, a member’s accrued benefit vests over many years. That is, if the employee leaves early, he or she may receive only a portion of the accrued benefit. This approach does not allow a retirement benefit to be built up with confidence over a working life. It therefore has no place in an ideal retirement system. If a minimum level of benefits is being funded for retirement, an employee should be entitled to their accrued benefit. This immediate vesting will ensure that an employee’s retirement benefit reflects his or her total service during their career and he or she does not suffer any significant disadvantage on changing employers.

In some countries, pension plan members are able to access part or all of their accrued retirement benefit before retirement. Such leakage reduces the effectiveness of the retirement system. This feature should not be permitted in an ideal retirement system. That is, the benefit should only be able to be accessed under certain prescribed conditions such as retirement after a certain age, death or permanent disability. It may also be appropriate to release a limited portion of the accrued benefit if the individual is suffering significant financial hardship. However, such access should be very tightly defined.

In most countries, it is likely there will be many pension plans and/or commercial providers. To ensure that an individual does not have several pension accounts relating to different periods of employment, an ideal retirement system would enable individuals to easily transfer their accrued benefits from one pension plan to another without any loss of benefit. That is, the accrued benefit would be portable from one plan to another.

Principle #7
Contributions (or accrued benefits) at the required minimum level must have immediate vesting and portability. These accrued benefits should only be accessible under certain conditions, such as retirement, death or permanent disablement.
DEFINED BENEFIT OR DEFINED CONTRIBUTION?
An important design feature of any private pension system is whether it is based on a defined benefit (DB) or a defined contribution (DC) framework. More recently, in some countries there has also been some discussion around a defined ambition or collective DC approach, which may be considered to be part way between a DB and DC system.

This report does not recommend one particular approach. Rather it outlines several features of an ideal retirement system, most of which can be delivered within either a DB or a DC system. It may appear that many of the features may be easier to deliver within a DC scheme. However, principles such as minimum funding levels, attractive default arrangements and some flexibility in the provision of retirement benefits are equally applicable for all arrangements.

In addition, whatever the system, it is critical there is sufficient flexibility to modify the system as economic or other conditions change. Nobody can predict the future with certainty except to say there will be unexpected events that will affect the capacity of any pension system to deliver. Therefore promises should not be made that can’t be adjusted under certain conditions.

WHO CONtributes?
A private pension system has three potential contributors: the employer, the employee/self-employed, and the government through the taxation system and/or through direct contributions.

In one sense, the choice between the employer and the employee is not that important. That is, if the employer contributes, it is very likely that the employee will receive a reduced salary as the employer will consider its contributions as an additional cost to the business. It’s also worth noting that if the contributions are made by the employer only, the employee may be less involved as some employees will not perceive their pension benefits as part of their overall remuneration package.

Another consideration is the administrative simplicity. In many cases, it may be more efficient for the employer to contribute through the existing payroll administration system. However, with improving technology, there should be little additional cost with contributions from both employers and employees.
This joint contribution approach is considered ideal as it shares the burden whilst also helping employees recognize they are contributing for their own retirement. The presence of employee contributions in the system should also make it easier for employees to make additional or voluntary contributions.

**THE ROLE OF GOVERNMENT**

Most governments support private pension systems through the provision of taxation concessions. These concessions exist for several reasons including:

- To encourage long-term pension savings within the community thereby offsetting the common influence of myopia amongst many individuals who tend to focus on the shorter term
- To compensate pension scheme members for the lack of access to their savings due to the preservation requirements, as recommended under Principle 7
- To increase the level of future retirement benefits thereby reducing the amount of any means-tested government benefits paid in future years
- To increase savings that, in turn, will increase capital formation and investment within the economy
- To encourage or require the provision of income benefits as distinct from lump-sum benefits at retirement

An ideal retirement system will include taxation support from the government for any or all of the above reasons. These concessions will also increase the community confidence in the system which is necessary given the long-term nature of all pension systems.

One feature of the taxation support that should be mentioned is intra-generational equity. Given that higher income earners will probably save without any taxation concessions, there is a reasonable argument to limit the size of the taxation concessions (for example, through benefit limits or contribution caps). However, as discussed earlier, it is preferable to limit these concessions over a working lifetime and not on an annual basis.
A lifetime approach also recognizes the balance needed between the mandatory and voluntary systems. Due to different personal circumstances, the ideal mandatory system should not be expected to provide the desired level of retirement income for all workers. That is, there should always be a role for voluntary contributions to “top-up” the benefits from the mandatory system, thereby acknowledging the need for some flexibility.

**Principle #8**
The government should provide taxation support to the funded pension system in an equitable and sustainable way, thereby providing incentives for voluntary savings and compensating individuals for the lack of access to their pension savings.
It is essential that any pension system has the trust of the community it serves. That is, individuals must have confidence in the ability of the pension providers to deliver the expected retirement benefits over many years into the future. This desired outcome requires a range of related features including good governance, strong regulation, consumer protection, cost-efficiency, good communication, together with access to education and advice.

**GOVERNANCE**
Pension plans should be independent of any employer, employee organizations and the government. That is, they should be a separate legal entity with separate assets.

It is also strongly recommended that all trustees, directors or fiduciaries who govern the pension plan should be required to meet an appropriate set of personal requirements, which may be similar to a “fit and proper” person standard used in some countries.

**Principle #9**
The governance of pension plans should be independent from the government and any employer control.

**REGULATION**
Although a failure of a pension plan does not have the same impact on the economy as the failure of a bank, it is essential that pension plans are prudentially regulated. That is, the regulator should prescribe a set of minimum standards and requirements for pension plans. These requirements should include policies relating to:

- The investments of the pension plan, including restrictions on in-house assets
- A risk management strategy, including any outsourcing
- Governance, including conflicts of interest and audit requirements
- Funding of liabilities, particularly defined benefits
MEMBER COMMUNICATION
The benefit provided by a pension plan represents the most important financial asset for most of its members but many plan members have very little understanding of the value of their benefits and the risks that may be involved. The provision of relevant information to plan members is therefore critical in promoting transparency and developing trust amongst members. Effective communication is also needed to start addressing financial illiteracy and the lack of awareness amongst many pension members about their benefits.

Pension plans within the ideal retirement system should communicate with their members in many ways and many forms but these should include the following:

- The provision of easy-to-understand information about the plan’s benefits upon joining the plan
- A regular member statement, preferably twice a year, setting out the member’s accrued benefits
- A benefit projection each year that shows the likely retirement income for the member, based on the latest data relevant to that individual
- An annual report about the pension plan, including information about the plan’s recent performance and investments

This information could be provided in printed or electronic form. In this digital age, it is also becoming cost-efficient for pension plans to communicate with members on a more regular basis than once a year.

MEMBER PROTECTION, EDUCATION, AND ADVICE
Community confidence in the pension system will be enhanced if the accrued benefits of members are protected from the financial consequences of fraud, significant mismanagement or employer insolvency. Note this protection does not extend to market movements that affect the value of the member’s benefit.

Pension plans should also provide members with information and assistance about their personal situation. This can be through a range of approaches including web-based calculators with live data feeds, a call center for advice, seminars and the provision of personal financial advice.
Any financial advice provided by pension schemes, financial institutions or financial advisors must have a high level of integrity and professionalism. The Statement of Investor Rights, prepared by the CFA Institute, contains several principles that are also applicable for pension scheme members. These include honesty, objective advice, fair treatment, the disclosure of conflicts of interest, clear communication as well as confidentiality.

**Principle #10**
The pension system should be subject to *appropriate regulation* including prudential regulation of pension plans, communication requirements and some protection for pension scheme members.
8. COMPARING PENSION SYSTEMS

The 2014 Melbourne Mercer Global Pension Index compared retirement income systems in 25 countries around the world. The index value for each country is determined by considering more than 50 questions divided into three sub-indexes: adequacy, sustainability and integrity.

The following table compares some of the features highlighted in the Ten Principles for an ideal retirement system with the actual data for the best five systems and an average score for the weakest systems in the 2014 Index Report.

<table>
<thead>
<tr>
<th>Country</th>
<th>Coverage</th>
<th>Funding by contributions</th>
<th>Assets</th>
<th>Adequacy</th>
<th>Poverty alleviation</th>
<th>Integrity sub-index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Denmark</td>
<td>83.7%</td>
<td>12.0%</td>
<td>173.2%</td>
<td>91.3%</td>
<td>35.6%</td>
<td>84.5</td>
</tr>
<tr>
<td>2 Australia</td>
<td>68.5%</td>
<td>9.5%</td>
<td>96.7%</td>
<td>72.8%</td>
<td>28.6%</td>
<td>87.8</td>
</tr>
<tr>
<td>3 Netherlands</td>
<td>88.0%</td>
<td>8.0%</td>
<td>155.4%</td>
<td>103.8%</td>
<td>29.5%</td>
<td>89.4</td>
</tr>
<tr>
<td>4 Finland</td>
<td>74.2%</td>
<td>4.7%</td>
<td>88.0%</td>
<td>62.4%</td>
<td>20.6%</td>
<td>91.1</td>
</tr>
<tr>
<td>5 Switzerland</td>
<td>70.5%</td>
<td>9.0%</td>
<td>113.7%</td>
<td>77.2%</td>
<td>21.9%</td>
<td>83.1</td>
</tr>
<tr>
<td>Average of 5 weakest systems</td>
<td>22.1%</td>
<td>5.0%</td>
<td>22.3%</td>
<td>36.5%</td>
<td>9.8%</td>
<td>56.7</td>
</tr>
</tbody>
</table>

Notes
1. What proportion of the working age population are members of private pension plans?
2. What is the minimum level of mandatory contributions that are set aside for retirement benefits, expressed as a percentage of earnings?
3. What is the level of pension assets as a percentage of GDP?
4. What is the net replacement rate for a median income earner, as calculated by the OECD using its model?
5. What is the minimum pension that a single aged person will receive, expressed as a percentage of the average wage?
6. This column shows the score for the integrity sub-index that considers regulation and governance, protection and communication for members, and costs.
7. Each average represents the results from China, India, Indonesia, Japan, and Korea.
This summary does not cover every aspect of an ideal system but it does highlight that the better systems have:

• High coverage of the population in the private pension system
• Mandatory contributions of at least 8% of earnings
• Funded assets set aside for the future that exceed more than 100% of the country’s GDP
• A net replacement rate for the median income earner of at least 60% of earnings
• A basic pension for the poor aged of at least 25% of average earnings
• A system that has a strong regulatory framework that leads to improved governance and better protection for pension scheme members

These results support the principles outlined earlier, which will lead to improved retirement systems that deliver adequate benefits for all workers, as well as being more sustainable over the longer term.

Of course, it should also be recognized that pension systems take decades to mature. It is therefore expected that countries which have only recently established their pension systems would have lower scores as some of the indicators (e.g. assets) cannot be improved quickly.

7. For example, the table excludes benefit design issues, household saving rates, demographic issues, government debt and labour force participation rate at older ages.
9. REFERENCES


Mercer (2014), Melbourne Mercer Global Pension Index, Australian Centre for Financial Studies, Melbourne.


The World Bank (1994), Averting the Old Age Crisis, Oxford University Press.
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