THE UNIVERSITY OF BRITISH COLUMBIA

The University of British Columbia Faculty Pension Plan

History from 1967 to 2017

Introduction

The University of British Columbia (UBC) Faculty Pension Plan (FPP) was formally established on April 1, 1967. The fiftieth anniversary of the Plan seemed a good occasion to provide our members with a brief history of the FPP, so they can see the present plan against the background of its evolution over the last half-century. I have been privileged to serve as Chair of the Board of Trustees for fourteen of these 50 years and decided to write this history as a personal project. I am neither a historian by training nor a pension expert, so the likelihood of omissions and inaccuracies is high. It also goes without saying that the content of this publication reflects only my personal views, not those of the other FPP trustees or the staff of the Plan.

I hope that readers of this piece will let me know of any errors or omissions, so that I can correct and update the version of the history that is posted on the website.

Joost Blom
Chair, UBC Faculty Pension Plan

Establishment of the FPP

In the mid-1960s, the rapid expansion of universities prompted thinking about their pension arrangements. At the same time, the federal government was shaping the Canadian pension landscape, partly by establishing the Canada Pension Plan in 1966 and partly by setting up the tax rules that permitted employees to deduct contributions to a pension plan and regulated what pension plans would be eligible for this tax treatment.

Until 1967 members of the UBC faculty received pension benefits through TIAA-CREF (Teachers Insurance and Annuity Association—College Retirement Equities Fund), the major American provider of retirement investment plans for employees in the education and non-profit sectors. The scheme by which faculty and the university each contributed to annuities provided by TIAA went back as far as 1924.[1] In the 1950s and 60s other Canadian universities had replaced TIAA-CREF with other arrangements. At one stage in the 1960s there were thoughts of creating a Canadian version of TIAA-CREF to handle pensions at universities nation-wide,[2] but in the end each university retained or adopted its own solution.

By the mid-1960s UBC was the last large Canadian university still to have TIAA-CREF as its pension provider.[3] There was a felt need for a thorough assessment of UBC's pension system. In 1964 the university and the Faculty Association set up a Committee on Pensions with members appointed by each.[4] In a very full and careful report dated 31 March 1966,[5] the committee analyzed three alternatives: retain TIAA-CREF, "Alternative I" (a money-purchase plan with a minimum benefit feature), and "Alternative II" (a defined benefit plan). The committee, whose report was unanimous, proposed the replacement of TIAA-CREF with a new UBC pension plan. It also recommended that a vote of the faculty be taken in which members could indicate their preference as between the status quo, Alternative I and Alternative II.[6] The committee as such expressed no conclusion as between the two alternatives but the faculty members on the committee all endorsed Alternative I.[7] The faculty vote strongly favoured Alternative I and the Committee on Pensions accordingly recommended to the Board of Governors that they approve it in principle, which the Board did in June 1966. At the November Board meeting of that year[8] the full plan text was presented to the Board on behalf of the Committee on Pensions by Dr. Robert Clark, who also held the title of Academic Planner. He prefaced his memo to the Board with a poem:

> In May most said they liked the plan,
> In June the Board agreed.
> "Bring forth the legal garb
> That all who sit may read."
>
> No trumpets shall acclaim our work,
> Deathless our prose is not!
> But we trust that it expresses
> The intent of our thought.

The Board approved the text and the FPP was born, with a starting date of April 1, 1967.[9]

A defined contribution plan

It was unusual in the 1960s for plans to be set up as defined contribution (i.e. money purchase). The norm was, and to a lesser extent still is, defined benefit, in which a member's pension is determined by a formula based on the number of years of service and the member's salary. The FPP is one of very few large pension plans dating from that era to have been mainly defined contribution from the outset. (I say mainly, because there was initially a defined benefit component of the FPP in the form of the minimum benefit option, described below.) Of the other major universities that were going in the 60s, only Western University also adopted a fully defined contribution model. All the other universities had defined benefit plans or some combination of defined benefit and defined contribution.

It is clear from the March 1966 report of the Committee on Pensions that the money purchase pension in Alternative I, which the later faculty vote supported, was seen as attractive because it offered many of the same benefits as TIAA-CREF, which was also a money-purchase plan. Faculty accumulated a pension account that was invested in TIAA funds and then, upon retirement, could use the accumulated amount to buy a variable annuity. This type of annuity was an innovation created in 1952 by TIAA, which set up CREF as a separate unit through which the annuity was offered.[10] The distinctive feature of the variable annuity, which was also built into the FPP, is that the annuitant is guaranteed an annuity for life but the amount of the annuity will vary over time, based on the performance of the underlying investment fund. Annuitants therefore have a measure of protection against inflation, which tends to push nominal investment returns higher than originally projected. They also bear the risk of a decline in their pensions if the fund earns less than the baseline return on which the annuity is based.

The main reason for moving away from TIAA-CREF, as argued in the committee's report, was that Canadian interest rates over many years had consistently been higher than those in the United States, and Canadian investments therefore could be expected in the long run to offer higher returns than the American investments to which TIAA-CREF was restricted.[11] Supplementary reasons were that TIAA-CREF's mortality assumptions were seen as too cautious (and so keeping annuity values too low) and that a university pension plan would probably have lower administrative costs than those that TIAA-CREF charged.[12]

A corollary of making the FPP a defined contribution plan was that it could be set up as a trust almost entirely independent of the university. In a defined benefit scheme the employer is bound to pay pensions at a certain level, regardless of whether the returns on the invested funds are sufficient to cover the promised pension benefits, and for that reason the employer can with reason insist on retaining control over the funds. But under a defined contribution plan the funds can be held independently of the employer, since the employer's financial obligation is limited to making the contributions and the employer has no direct interest in how the fund performs.

Hence the framers of the FPP adopted an independent trust as the vehicle for holding the fund and providing the pensions. The only involvement of the university in the operation of the FPP is the Board of Governors' appointment of four of the eight trustees of the plan, and the requirement that any amendment of the plan must be approved by the Board of Governors as well as the trustees.[13] Part of the motivation for choosing this structure may have been that it offered a kind of bulwark against interference by the provincial government. The Social Credit government of the day had required some of the government pension funds to invest exclusively in BC government bonds, and there was apparently a fear at the time that, if the faculty pension funds were to be the property of UBC, this new, large pool of capital might tempt the government to impose a similar restriction on UBC. Funds held in an independent trust, however, would not be subject to such government control.[14]

At the inception of the FPP in 1967 faculty members who were already contributing to TIAA-CREF were given the option of staying outside the FPP and continuing with TIAA-CREF. As late as 1972 there were still

faculty members who had opted out of the FPP in 1967 and were still contributing to TIAA-CREF. The 1972 Annual Report said that the Canadian tax authorities had previously announced they intended to exclude TIAA-CREF plans from being Registered Pension Plans, which would maroon those who were still contributing to its plans. The report noted that the de-registration had apparently been put on hold but the university had indicated that those who wished to enter the FPP as of January 1, 1972 could do so. [15] The TIAA-CREF plan was apparently successful in June of 1972 in being accepted as a Registered Pension Plan,[16] but this registration did not last.[17] One issue in TIAA-CREF's continuing to offer pensions to Canadians was that its funds were invested in American securities, and the Canadian authorities eventually adopted a "Canadian property rule" that restricted the proportion of non-Canadian property that a pension fund could hold to 30%.[18]

There were also members who had been with TIAA- CREF for less than five years and so were allowed to withdraw their contributions and transfer them to the FPP, which many did.[19]

The FPP was established some years before the Staff Pension Plan (SPP) for the non-academic employees of the university, which was set up in 1972.[20]. It was structured differently. It is not a defined contribution plan but (to use today's terminology) a target benefit plan. Members' benefits are defined based on length of service and salary, but not absolutely guaranteed. If the SPP's investments fall short of expected liabilities, there must be an adjustment to bring the two into line with each other (hence the "target" qualification). The administrator of the SPP is the university, not an independent board of trustees.

Original design of the FPP

Mandatory membership

Except for faculty who opted to stay with TIAA-CREF, membership in the FPP was made mandatory for full-time faculty. Later on, certain categories of sessional or part-time faculty also became eligible to join the FPP.

Contribution levels

The single most important element in the FPP's design was, and still is, that it is well-funded. The basic contribution rate is 5% for the member and 10% for the university. That contribution rate had been in place for TIAA-CREF as well.[21] When the FPP was set up the Canada Pension Plan had just been introduced, and both the member's and the university's contribution obligations under the FPP were defined so as to dovetail with the Canada Pension Plan (CPP) contributions that each of them makes.[22] This total savings rate of (including the CPP) 15% of salary (up to the maximum Registered Pension Plan contribution permitted under the tax rules) is high enough to make it very likely that — even bearing in mind the investment risks that are inherent in a defined contribution plan — a satisfactory level of pension benefit can be achieved for members. (This is further discussed below in the Investments section.)

Investment options

When it started the FPP had a single fund in which members' accounts were invested. This was a balanced fund composed of equities and fixed income securities, though structured somewhat differently from today's Balanced Fund (see the Investments section below). It was not until 1993 that members were offered the choice of allocating some or all of their account from time to time to other sub-funds such as the Equity Fund or the Bond Fund (see Amendments to the FPP since 1967 — Investment options, page 7).

Retirement options

Under the initial set-up of the plan, members who retired were not free to take their account balance out of the plan. Upon taking their pension, members had to choose one or other of two retirement benefits paid by the FPP itself. The money purchase option was to use the balance in the account to purchase a Variable Payment Life Annuity (VPLA). Members could also choose to take the Minimum Benefit Option.

Money purchase option (Variable Payment Life Annuity (VPLA))

The VPLA, which as noted above was pioneered by TIAA-CREF in the early 50s, works as follows. (Readers who dislike technical details should skip this section.) Start with assuming hypothetically that there were only one annuitant. The dollars in his or her FPP account upon retirement would be set aside as an earmarked chunk of the balanced fund. An annuity would be paid out of that account based upon a baseline assumed rate of return in the fund, which at the FPP's inception was 8%. The monthly pension would be set so that if the fund earns 8% each year, and the member lives precisely as long as the actuarial table (whichever one is used) predicts, the member receives exactly the same monthly dollar amount throughout and the fund is exhausted when the member dies.

Reality makes the calculation more complicated. Two factors are obvious. The fund will not earn precisely the assumed rate of interest and the member will not die precisely on the date indicated by the actuarial table. A third factor, which is less obvious, is that the earmarked fund is owned, not by a single annuitant but by a group of annuitants, with new ones coming in over the years and old ones dying. The pension that a new annuitant gets for his or her dollars must be fair in relation to that of somebody who bought in years ago for a different amount of dollars.

All three factors — the return risk, the longevity risk, and the temporal equity issue — are handled by a set of actuarial calculations that must be carried out every year. Unlike a fixed annuity, where the insurance company promises an individual annuitant a fixed monthly sum for life, the VPLA has a group of annuitants who are, between them, each entitled for life to a share of the total pension income generated by a pooled fund. Money comes into the fund as new annuitants buy in, and as the fund earns returns. Money leaves the fund as pensions are paid. (Money does not leave the fund when an annuitant dies because that annuitant's original contribution has, in principle, been used up.)

The key to the system is that the VPLA annuitants' total pension entitlement is defined in terms of units. Each annuitant purchases his or her units when using the dollars in the FPP account to buy the VPLA. Once the annuity is bought the member's unit entitlement is fixed. The total units in the fund go up as annuitants buy in and go down as annuitants die. So if you add up all the units currently held by all the annuitants in the pool, and you estimate the present (i.e. discounted) value of the total future pension the VPLA fund can support (plugging in the necessary assumptions about future fund returns and annuitant longevity), you can divide the total future pension benefit by the total number of units and that gives you the value per unit of the annuitants' pension entitlement. The monthly payment to each annuitant is defined as so much per dollar of unit value, so for continuing annuitants the monthly payment goes up or down as the unit value goes up and down. At the same time the unit value is the fair price at which new annuitants buy into the VPLA, since the dollars they put into the fund, when converted into units, entitle them to a stream of future payments equal in value (as currently estimated) to the dollars put in.

A principal virtue of the system is that the variable annuity allows the annuitant to keep sharing in the investment performance of the FPP Balanced Fund after retirement. If the fund grows faster than the assumed baseline return and so can support a larger total pension entitlement, the unit value will rise and so will pensions. Especially if inflation becomes an issue, this is some protection against the erosion of the value of the annuitant's pension. Of course the system also means that if the returns are less than the assumption, the pension payout must be decreased as the unit value falls. If experience shows the baseline assumed return is set too high, it can be lowered for new annuitants, and this has happened; see Amendments to the FPP since 1967 — Retirement options — Options for the VPLA, on page 7.

The annual recalculation has the further advantage that if longevity assumptions turn out to be inaccurate, because annuitants are living longer (or shorter) than the assumptions indicate, the actuarial table can be adjusted to better reflect the actual mortality experience. This has occurred from time to time over the 50 years, because — happily — VPLA annuitants were, on average, living longer than previously estimated. These adjustments serve the goal of intergenerational equity. Those who retire earlier do not benefit indefinitely from the more pessimistic (in terms of lifespan) actuarial assumptions, and so from higher payout assumptions, that were in effect when they bought into the VPLA.

The VPLA remains uncommon in Canada because federal tax authorities decided in 1988 not to permit registered plans to pay money purchase retirement benefits as an uninsured annuity, which according to their rules a variable annuity was. The FPP and two other plans, which had already implemented variable annuities, were grandfathered.[23]

Minimum Retirement Benefit (MRB) Option

One of the driving forces behind the creation and the shaping of the FPP was that many faculty members in the mid-1960s had accumulated a very inadequate pension entitlement. The problem was especially severe among senior faculty, because salaries had been comparatively low in the early years of their career. In addition, the university's contribution to faculty members' pensions was 5% of salary, not 10%, before 1949.[24] Faculty opinion therefore strongly supported the provision by the FPP of a minimum benefit option, in effect a defined benefit pension. The pension was set at 1.75% of the member's average annual basic salary in the highest five consecutive years, multiplied by the number of years of credited service at UBC. The maximum benefit was 60% of average annual salary. [25] The MRB was indexed to a maximum of 3% a year. (This indexing limit, which was part of the rules for registered plans,[26]seems almost generous now but was woefully less than actual inflation in the 1970s and early 1980s.[27])

The minimum benefit was defined to include any CPP received, and any benefits from other UBC pensions (mainly TIAA-CREF), so that the cost to the FPP of paying the minimum benefit to retirees who had chosen this option varied from year to year depending on how the TIAA-CREF funds did.

The MRB was funded by active members (current contributors), through a levy of 0.9% of the university's contributions to members' pensions. It was expected in 1967 that the MRB would be fully funded within 10 years, but this was too optimistic. MRB payouts were higher than expected because salaries (and therefore the benefits, which were based on salary levels) were inflating rapidly in the 1970s, though this was offset somewhat by a faster than expected growth in the number of active members.[28] Returns over that period were also not as great as the initial projections. It was not until 1978 that the MRB levy was reduced to 0.33% of the university's contributions,[29] and it was finally eliminated in 1984.[30]

From the outset the minimum benefit option was assumed to be a transitional measure, to do justice by faculty who because of their age (bearing in mind mandatory retirement at 65, which stayed in place until 2007) could not contribute to the FPP long enough to build up a decent money purchase pension. It was expected that, as members retired with larger accounts, they would increasingly choose the money purchase option (the VPLA) as the better benefit. And so it proved. In the early years most retirees chose the minimum benefit; in 1975, for instance, 85.4% of benefits being paid were minimum benefits.[31] By 1982, of a total to that point of 222 FPP retirees, 149 had taken the minimum benefit option.[32] Nobody opted for the MRB after 1986 and the MRB option was removed in 1991.[33]

The funds that were allocated to fund the MRB,[34] together with the earnings on them, eventually turned out to be more than the projected MRB benefits. A total of $8.6 million of the surplus was distributed in 2000 to the members whose university contributions had been levied to pay for the benefits, a very complex exercise.[35] By 2007 only 34 retirees remained who were receiving MRB benefits.[36] In June 2008 the FPP purchased an annuity from Sun Life for the remaining MRB retirees, which meant that Sun Life took over liability to pay the benefits and the last remaining surplus in the MRB fund could be returned to members in the same way as the $8.6 million had been distributed eight years earlier.[37]

Amendments to the FPP since 1967

This is not a chronological account but is organized by type of amendment.

Investment options

As already mentioned, at the outset the FPP members were invested in a single fund. (There was a separate, earmarked fund for MRB retirees.) Many defined contribution plans give investment options to their members, but these are typically options to invest in funds external to the plan. The FPP trustees began to think in 1987 about expanding the investment choices for each member by providing sub-funds within the FPP.[38] This was a challenging exercise in itself, and the university and Revenue Canada had to approve any such changes. The process took years. Only in 1993 were members finally offered three new funds to which they could allocate all or part of their accounts from time to time as an alternative to the Balanced Fund (called the Prime Fund for some years). The new funds were an Equity Fund, a Bond Fund and a Money Market Fund (changed a few years later to Short Term Investment Fund or STIF[39]). Except for the last of these, which had no counterpart within the Balanced Fund, each fund was composed of assets that were also part of the Balanced Fund and were managed by the same investment managers. Members could therefore opt to tilt their investments in the direction of equities or fixed income, or put them in the STIF, which offered lower returns but virtually no risk of loss of capital.

The investment options for members have been further enhanced since that first major change. One change was precipitated by the removal in 2005 of the Canadian property rule, which restricted pension funds to a maximum of 30% non-Canadian assets. Because of this rule, the only non-Canadian assets then held by the FPP were foreign equities, mostly US equities. The fixed income assets were all Canadian. The proportion of foreign equities in the FPP was capped at a figure that would keep the FPP compliant with the Canadian property rule. The lifting of the rule meant that the FPP was free to allocate more of its equity assets to foreign equities. This change posed the question of how to structure the Equity Fund as between Canadian and foreign equities. The trustees decided that members should be able to allocate as between the two, and so the Equity Fund was split in 2005 into the Canadian Equity Fund and the Foreign Equity Fund.[40]

The only wholly new investment option introduced since 1993 has been to create the ability to invest in GICs, as a higher-income alternative to the STIF. This option, which uses GICs offered by Sun Life, was introduced in 2012.[41]

The ability to allocate investments differently from the Balanced Fund, which remains the default option, is a valuable part of the FPP, even though only a minority of members typically take advantage of it. The pattern has been that fewer than 20% of FPP members ever shift their investments away from the Balanced Fund.

Retirement options

The biggest changes to the plan have been to the forms in which members could take their benefits after retirement. These changes have by and large come as a result of pension legislation permitting greater portability of benefits.

Withdrawing funds after retirement

In the early years of the plan, a member who retired could not take the amount accumulated in his or her account out of the FPP upon retirement in order to purchase an annuity from another provider. The member had to take benefits through the FPP. As of 1982 a member could choose to take all of the money out instead of leaving it in the plan.[42] Later on, it became possible to take part of the money out and leave part in the plan.[43] In the 1980s a large majority of members, upon retirement, opted to purchase an annuity outside the plan because the life insurance companies offered annuities at better rates than the rate on

which the VPLA was based. Of course the life insurer's annuity was usually a fixed annuity whereas the VPLA offered the prospect of participating in future returns of the FPP fund, but this did not deter members. The 1993 Annual Report noted that of the 313 retirees since 1982 who had exercised the money purchase option, 254 had taken their money out of the plan.[44] This trend altered later on because market annuity rates declined and because additional benefit payment options were created within the FPP. Now, typically, more retiring members leave their money in the plan than take it out.

Options for the VPLA

As noted earlier, the VPLA was structured in 1967 on the basis of an assumed 8% rate of return. This was soon judged to be too high and in 1974 it was reduced to 7%. If the fund (meaning the Balanced Fund, in which the VPLA is invested) has a 7% return over the long haul, the VPLA annuity stays the same over the long haul in nominal dollars. In 1994 the FPP began to offer a 4% VPLA option, which based the monthly payment on an assumed annual return on the fund of 4%. The rationale for creating this option was that it would offer the choice of an annuity that (more or less) kept its real, rather than its nominal, value. If long-term returns are 7% a year, and inflation is around 2% to 3%, the 4% annuitant will get payments that increase over the years and provide a stream of benefits whose real value stays more or less constant.

Whether the 7% and 4% options serve their purposes depends, of course, on whether the long-term returns on the fund are about 7% and whether inflation runs at a modest rate. The latter has been true over the last few decades, but doubts have grown about the former as a long-term assumption. A 7% return was for many years seen as a reasonable estimate of the long-term returns to a balanced investment portfolio, but in recent years, expert opinion has tended to lower the rate of future returns. It is now generally put at 5.5% or 5.75%, for a variety of reasons, some of which have to do with the maturing of developed economies and the aging of their population. Pension trustees have to work with the best assumptions they can. Therefore, the FPP trustees considered in 2016 whether the VPLA options should be shifted to lower baseline assumed returns, such as 6% and 3%. The conclusion was that the behaviour of the existing VPLA options in the expected lower-return environment — mainly a tendency of the 7% option to result in slowly declining nominal-dollar pension payments, since long-term returns in the fund would fall short of 7% — would not be so drastically different as to warrant changing their structure at this point. There was also the fact that the VPLA was no longer the only form in which retired members could take their benefits.

Registered Retirement Income Fund (RRIF)- type payments and Life Income Fund (LIF)-type payments

Revisions of the regulatory rules made it possible, as of 2004,[45] to offer two other vehicles within the FPP for taking benefits after retirement. These offer more flexibility than the VPLA. Essentially, both the RRIF and the LIF-type accounts are decumulation accounts (accounts for taking income from accumulated retirement savings) from which the retiree must withdraw a minimum amount each year, defined by the regulations. The main difference between the RRIF and the LIF-type accounts is tied to the "locked-in" rule, which applies to all contributions made after 1992 and the earnings on them. The locked-in funds are subject not only to a minimum but also to a maximum withdrawal rate, the policy being that pensioners should not be able to spend their savings so fast as to run the risk of exhausting them early. Non-locked in funds go into the RRIF-type account, locked-in funds go into the LIF-type account.

Unlike the VPLA annuity, which lasts for life but (subject to a guaranteed minimum term and to survivor benefits) leaves nothing at death, amounts left in these two accounts (RRIF or LIF) when a retired member dies, form part of his or her estate. Also unlike the VPLA, the member continues to be able to allocate the funds in the two accounts among the FPP's investment options, whereas the VPLA is by definition invested in the Balanced Fund.

These two options have proved very popular, although many retiring members still choose the VPLA for some or even all of their pension benefits. Of the 1,040 retirees at the end of 2016 who had kept some or all of their funds in the FPP, 424 were receiving VPLA benefits, 451 were receiving LIF-type benefits, and 540

were receiving RRIF-type benefits. (Many were receiving more than one category of benefit, so the total adds up to more than the head count of retirees.)

The fact that, after retirement, members can stay in the plan, continue to share in its investments, and have considerable flexibility as to how to structure their pension payments, is relatively rare among Canadian defined contribution plans. It is also widely thought to point in the direction in which other DC plans should go, namely, not only to serve members during their accumulation years but also to continue supporting them in their decumulation years.[46]

Supplementary Arrangement

Mention should be made of the Supplementary Arrangement. It is not part of the FPP. It is a tax-sheltered fund set up by the university in 1992. It receives contributions from the university where the maximum annual contribution to the Pension Plan, as set by the tax rules, does not allow the university to contribute 10% of the member's salary to the FPP (the usual contribution, leaving aside the CPP credit, that the university makes to a faculty member's pension). This currently cuts in only at a fairly high salary level. In 2017, for example, the maximum Registered Pension Plan contribution (counting both the member's and the university's) is $26,230, a figure reached for those FPP members who earn more than $187,298. The "top-up" contribution by the university is credited to the member's account in the Supplemental Arrangement. The funds are invested in an external fund. The earnings credited to each member's account are not taxed until the funds are withdrawn after retirement.

Membership

The faculty complement grew very rapidly in the 1970s and early 1980s, and then at a slower pace. In its very first year, July 1, 1967 to June 30, 1968 (the FPP later changed its fiscal year to the calendar year[47]), membership grew from 848 at the start of the year to 1,040 at the end.[48] At the end of 2016, there were 3,412 active (currently contributing) members, 1,527 deferred members (no longer contributing because no longer employed at UBC, but not yet drawing a pension), and 1,051 retirees. (This counts only retirees who received benefits from the FPP, not retirees who took all their money out of the plan.)[49]

About 200 faculty joined the plan when UBC Okanagan was set up.[50]

When UBC eliminated mandatory retirement as of May 2007,[51] the FPP did not need to be amended. The plan has always referred to retirement from the university without tying that retirement to any age (except for the minimum age of 55 for commencing benefits under the plan). Those who work past 65 simply stay active members of the plan. The tax rules require, however, that a member stop contributing to the plan and start drawing benefits no later than age 71, even if the member is still working blithely away.[52]

Governance

From its establishment the overall administration of the FPP has been in the hands of its eight trustees. Four of them are elected by the members and four are appointed by the UBC Board of Governors. Retired members are eligible for election[53] and appointment. *Appendices A and B* provide lists of the board chairs and trustees since the beginning of the plan. The two main changes over the 50 years to the setup of the board of trustees came as part of a general revision of the plan text in 2011. First, the terms for which elected trustees would serve was lengthened from two to four years, and appointed trustees, who had

previously been appointed without a term, would now also be appointed by the Board of Governors for four-year (renewable) terms. The second change was to remove a rule that one of the appointed trustees had to be a non-employee of the university.

The trustees' organization of their own work has varied from time to time, mainly in relation to delegating particular tasks to committees. In 1994 the board created Investment and Operations Committees that would take the lead in relation to those two aspects of the board's work.[54] By the early 2000s, however, the board preferred to operate as a whole and no longer had these committees. Ad hoc committees are struck now and then for particular tasks.

The actual operation of the FPP is the responsibility of the UBC Pension Administration Office (PAO). This, of course, has grown greatly over the 50 years of the FPP and the 45 years of the Staff Pension Plan (SPP), which is also run by the PAO, under the direction of the SPP Board. Some of the PAO staff are exclusively FPP staff or SPP staff, and the rest do work for both plans. The FPP side of the operation currently involves just under 10 full-time equivalent staff.

When the FPP began, the plan was administered by members of the university's human resources and treasury staff as part of their overall responsibilities, but gradually a separate unit came into existence. Until his retirement in 1985 the Secretary of the FPP, which was then the administrative head of the plan, was the Assistant Treasurer of the University. From then on, the Secretary of the FPP seems to have become a full-time, dedicated position, and by 1993 the position had become Executive Director, Operations. In 1994 the FPP hired its first Executive Director, Investments. Until then the trustees had dealt directly, or through consultants, with the managers of the FPP's investments. The Executive Director, Investments has since then provided in-house investment expertise as a vital support to the trustees' handling of the investment side of their responsibilities. (See the Investments section, on next page).

In 2015 the Executive Director, Operations of the FPP and her counterpart at the SPP both retired, and they proposed that their two positions be consolidated into a single position of Executive Director, Pensions, which was done. In addition, the two plans created an Associate Director, Pensions position to support the Executive Director, Pensions. This amalgamation and enhancement of the top operations structure of the two plans has worked well. *Appendix C* provides a list of executive directors and board secretaries since the plan's inception.

Operations

The details of how the operations side of the FPP has evolved over the 50 years are beyond the scope of this brief account. However, two successive long-term changes are worth noting because they show how new solutions have had to be found for the challenges posed by the huge growth of the FPP (and the SPP) over the decades. The plan began in the world of paper and (at best) punch cards. Then computers began to come on the scene and, like the rest of the pension industry, the FPP had to integrate them into its operations. In the 1991 Annual Report the trustees noted that a new pension administration system would be introduced,[55] and the next year's report announced that a firm had been retained to design and provide to the FPP a new Pension Administration System.[56] By the following year, the new system was in place.[57]

The in-house administration system needed continual upgrading, and the 2008 report referred to a complete redesign.[58] Eventually, however, the cost and complexity of running the in-house system reached a point at which the trustees had to decide whether it made more sense, both financially and operationally, to outsource part of the administrative function rather than make major new investments in the in-house system. With the help of external consultants, the trustees decided that, on balance, the required financial

commitments and the operational risks of sticking with the in-house system were too great. The recordkeeping side of the operation would be outsourced. Sun Life was chosen in 2014 to provide the record-keeping functions for the FPP. This function had to be integrated with the PAO's administration of the plan, a very intricate process that was successfully concluded by mid-2015.[59] The technological capability that Sun Life added to the FPP has been a benefit to members. To name only one improvement, the various investment funds (Balanced, Canadian Equity, Foreign Equity, and Bond Fund) can now be valued on a daily rather than a monthly basis, which greatly streamlines the process by which members can reallocate their accounts as between the funds.

Sun Life's role is limited to recordkeeping and to acting as custodian (that is, repository) for the FPP's investments. The asset classes in which the FPP is invested, the selection and monitoring of investment managers for each of those classes, and the structuring of the various fund options available to members are still the responsibility, as they have always been, of the FPP trustees. The PAO continues, as before, to be responsible for assisting members with any FPP issue aside from routine inquiries and instructions about members' accounts that Sun Life can handle.

On the subject of member communications, the first reference to using the internet to communicate with members occurs in the annual report of 1997.[60] The FPP website has been continually enhanced since then, and Sun Life's website is now also part of how members get informed about, and get in touch with, the FPP.

Investments

When all is said and done, the performance of the FPP's investments is what members think of first when they think of how the FPP is doing. It is also the subject to which the trustees routinely devote more of their time than any other. The scale of the FPP's investments has, naturally, grown exponentially over the 50 years. Not only has the FPP earned returns over that half-century, its funds have been further enhanced by the ongoing contributions to members' accounts. The FPP finished its first year, 1967-68, with a fund of $1.8 million.[61] After 25 years, in 1992, the fund stood at $452.6 million.[62] At the end of 2016, the FPP's net assets available for benefits stood at $2.139 billion. A good part of this represents retired members' money. As members have retired and used their accounts to purchase benefits through the plan, the three accounts out of which those benefits are paid (the VPLA, the RRIF-type account and the LIF-type account) have come to represent just under one-third of the total assets held by the FPP, $653 million out of $2.139 billion. Assuming many retirees continue to leave their funds in the plan, this proportion will grow as the ratio of retirees to active and deferred members grows.

The annual returns that the FPP has earned on its investments have, of course, gone up and down from year to year with the markets in which it is invested. These are (in 2017) equities, fixed income, and pooled real estate funds. A table of the historic annual rates of return is available on the FPP website under Investments > Investment Performance > Historical Annual Rates of Return. The best single year's return in the Balanced Fund from 1968 to 2016 was 1993 (22.8% before fees). (Only the Balanced Fund goes right back to 1968. As noted above, the other funds were created in the 1990s.) The worst, not surprisingly, was 2008, the year of the financial crisis, when the Balanced Fund lost 13.00%. (Happily, it had already regained most of this a year later; the 2009 returns (before fees) were 12.48%.) The Balanced Fund has had a negative return in 6 of the 49 years from 1968 to 2016, and (so far!) never two years in succession.

Another table on the FPP website, under Investments > Investment Performance > Average Annual Rates of Return, shows the average annual rates of return for various periods. As of the end of February

2017, the average return in the Balanced Fund over the last 10 years was 6.22% (before fees) and over 5 years, 9.32%.

The trustees' approach to investment policy has inevitably developed over the 50 years. For the first two decades of the plan, the trustees left it to the investment managers to shift between equities and fixed income, depending on the individual managers' view of the markets. The period 1967-87 was one in which these markets gyrated dramatically, with the oil shock of the early 70s being succeeded by a period of high inflation and rapidly rising interest rates, both of which peaked in the early 1980s. In middle of this period, the 1976 Annual Report described the trustees' investment strategy with striking candour: "[T]he approach has been to muddle through a morass of doubt. Being gifted with neither clear sight nor second sight, your trustees have been groping their way through a fog composed of conflicting wisps of information."[63] That was a year in which the fund returned 6.93%, but in which inflation ran at 7.8%.[64]

The year before, the report noted that the fund's allocation to equities had dropped over two years from 49.4% to 32.5%, partly as the result of the combined decisions of three managers, who were free to reallocate between equities and bonds as they chose.[65] It was also due to an increase in the FPP's investment in mortgages (an asset class no longer held today), which in 1975 comprised 23.9% of the fund.[66] Such sharp shifts in allocation would not happen today without a policy decision by the trustees.

The evolution from asset allocation as a delegated function to asset allocation as a policy choice culminated in 1987. In that year the trustees implemented a new investment structure with target allocations among asset classes, each of which would now be separately managed by one or more specialist managers.[67] This shift had been recommended by a consultant retained to review the FPP's approach to investments,[68] and no doubt reflected larger trends in the industry. It remains the trustees' basic approach. The key decision is which asset classes to include and how much to allocate to each, and that is driven by assumptions about how each type of asset behaves both in the long run and at different points in the business cycle. Every four years or so the trustees take advice from consultants as to the asset mix that provides — on current assumptions — the best combination of return and risk (in the sense of volatility of return). Based on that advice, the trustees decide whether to change the asset weights in its current policy.

The trustees' asset allocation policy is formally reflected in the Statement of Investment Policies and Goals (SIP&G), which is posted on the FPP website under Plan Governance > Governance Policies & Documents. This covers not only asset allocation but the other principles that the trustees believe should underlie their investment decisions. As of January 2017, the long-term policy asset allocation for the Balanced Fund (in s.5.2A of the SIP&G) is 20% Canadian equities, 30% global (US and other foreign) equities, 32% bonds, 8% real return bonds, and 10% real estate. (Real estate, held as a share of a managed, pooled fund of real estate assets, was first included in the fund in 1994.[69]) The actual allocations change, of course, as one asset class outperforms another over a period of time, and if this goes too far the assets need to be rebalanced to bring them closer to the target policy weights. The SIP&G leaves the trustees a broadly defined discretion as to how far is too far in terms of having to rebalance (see s. 5.2B).

After the asset allocation decision, the trustees' major responsibility on the investment side is to select the investment managers and monitor their performance. There are currently 13 managers: 6 on the equity side (3 for Canadian equities, 3 for global equities), 4 on the fixed income side (including real return bonds), 2 for real estate and 1 (Sun Life) for GICs and money market. (See Appendix B of the SIP&G.) The Executive Director, Investments is continually in touch with each of them. The board of trustees meets with most of them annually (some less often) to review their performance and discuss their strategy.

If a manager's long-term performance falls below a certain standard, which the trustees have also set out in the SIP&G (Appendix C of the SIP&G), the trustees must review the manager in question and decide whether to retain or replace them. The criteria are based both on the manager's performance relative to the market index that serves as the benchmark for their asset class, and on their performance relative to an appropriate universe of managers with similar mandates.

The entire apparatus of investment management exists to serve a purpose, namely to meet the objectives of the pension plan. Since a defined contribution plan like ours has no specific guaranteed levels of pension that must be funded, the question is how to define the long-term investment objectives that the plan should meet. The trustees' current definition of those objectives is in the SIP&G (the first part of Appendix A). One is in terms of income replacement ratio. A "typical" member should be able to achieve a "reasonable income replacement ratio (i.e. 50% or higher) based on their final year's salary". The "typical" member is posited as one that has at least 30 years of service, is invested in the Balanced Fund throughout, and will not retire before 65.

The choice of 50% as the minimum "reasonable income replacement ratio" in this objective is a recent one, lower than the previous target figure. The lowering of the ratio is tied to the general lowering, which has been referred to earlier, of expectations for long-term investment returns. Compound interest is hugely significant over a 30 year horizon. A fund that averages 7% returns over that period, which used to be the going assumption, will leave members' accounts a good deal larger than a fund with 5.75% returns, to use one of the numbers currently thought to be appropriate. Those of us who have been part of the FPP over the last 30 years have had the good luck to be collectively invested in a balanced portfolio during a time of almost constantly falling interest rates, which has benefited returns on both equities and fixed income. With interest rates as low now as they can go, and with the structural changes in developed economies that were mentioned earlier, returns over the next 30 years are unlikely to be as high, which is why the industry as a whole is adjusting to a lower-return environment. The target "reasonable income replacement ratio" in the SIP&G has had to follow suit in order to keep the objective solidly based on what is — on the best current opinion — possible.

The other investment objective in the SIP&G has to do with volatility of returns. The objective is "to mitigate the probability of a negative annualized three-year nominal return". (So far there has not been a negative annualized return over a three-year period, but, as investment managers are always careful to say, "Past performance is no guarantee of future results.") This objective is the "risk" side of the picture, as distinct from the "return" side reflected in the first one.

The practical significance of the objectives is that they both inform, to a very significant extent, the asset allocation process that was described earlier in this section.

Conclusion

The FPP has delivered the primary benefit of a defined contribution pension plan, which is to enable a large pool of investments to be managed at a low cost, in the sense of the cost being a low percentage of the total fund. For the Balanced Fund the total cost of managing the investments and operating the pension plan is about 0.47% of the fund. No individual member could buy the equivalent management services on the market for anything similar to this rate. Lower costs mean higher net returns, and with the compounding effect over the years, significantly higher account balances for members.

Beyond that primary goal, the FPP has features — some dating back to the start, others added later — that make it (so I have learned over the years I have been a trustee) a much-admired plan in the Canadian pension industry. (Its size also attracts respect. The FPP is one of the largest defined contribution plans in the country.) Members have a good set of investment options while they are contributing, and they have a good set of options for how they take their benefits when they retire, either by staying in the plan or by using their funds to purchase an external annuity or retirement fund.

The last 50 years have seen the FPP evolve continuously, and it will continue to do so. New investment options may be added, if they offer the members a benefit that the existing options do not. Managers will be replaced. New classes of assets may be added to the funds. New retirement options may come along, if the tax authorities and the pension regulators permit. Still, those who helped set up the FPP 50 years ago would have no trouble recognizing the present FPP as their creation. This historical sketch, I hope, will help to put on record the enormous debt we, the current members, owe to all the trustees, pension office staff and university administrators who over the 50 years have built up a terrific benefit, in every sense of the word, for all of us.

Acknowledgments

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Appendices

Appendix A: UBC Faculty Pension Plan Trustees since 1967

Trustee	Duration	Trustee	Duration
Leslie G. J. Wong	1966 - 1968	William T. Ziemba	1987 - 1988
Allen Baxter	1967 - 1987	Jonathan Kesselman	1988 - 1989
Benjamin N. Moyls	1967 - 1978	Patricia Vertinsky	1988 - 1988
Donovan Miller	1967 - 1967	Sidney Mindess	1988 - 1991
H. Purdy	1967 - 1969	Anthony Boardman	1989 - 1990
J. F. McLean	1967 - 1976	Robert Heinkel	1990 - 2019
Peter Lusztig	1967 - 1967	David Walker	1991 - 1994
Robert M. Clark	1967 - 1977	Francis Navin	1991 - 1992
Albert J. McCLean	1968, 1979 - 1995	Gail Bellward	1991 - 1993
J. G. Cragg	1968 - 1969, 1974 - 1985	Michael Partridge	1992 - 1996
J. L. Helliwell	1968 - 1969	Harold Fearing	1993 - 2006
Richard Bibbs	1968 - 1972	Sheila M. Innis	1993 - 1995
C. L. Mitchell	1969 - 1971	Allan Hall	1995 - 2000
Hartley V. Lewis	1969 - 1970	Dennis Pavlich	1995 - 2006
Peter Lusztig	1970 - 1970	Margaret Arcus	1995 - 1999
William F.J. Wood	1970 – 1971, 1977 - 1989	Joanne Emerman	1996 – 1997, 2007 - 2018
Frederick J. Brooks Hill	1971 - 1974	Linda Thorstad	1997 - 1998
Robert G. Evans	1971 – 1977, 1979 - 1988	Jane Gaskell	1998 - 2000
Hartley V. Lewis	1972 - 1973	Al Poettcker	1999 - 2012
J. L. Evans	1972 - 1973	Ann Hilton	2000 - 2006
J.M. Lecky	1972 - 1974	Joanna Bates	2000 - 2003
R. W. Grayston	1973 - 1974	David Breen	2001 - 2006
Phelim P. Boyle	1974 - 1975	Joost Blom	2003 - 2020
Sadie Boyles	1975 - 1979	Ralph A. Winter	2004 - 2005
Stanley W. Hamilton	1975 – 1976, 1985 - 2003	Joyce Boon	2006 - 2020
Clemens F.J. Boonekamp	1977 - 1979	Neil Guppy	2006 - 2011
James M. MacIntyre	1977 - 1979	Joy Begley	2007 - 2017
Lawrence D. Jones	1977 - 1981	Patrick Walden	2007 - 2008
Alan F. Pierce	1979 - 1983	Kai Li	2009 - 2015
Donald G. Paterson	1980 - 1982	Vijay Verma	2012 - 2019
Robert Alan Jones	1980 - 1984	R. Kenneth Carty	2013 - 2018
Robert H. Lee	1984 - 1985	Lorenzo Garlappi	2015 - 2017
Angela Reddish	1985 - 1987		
Joy McCusker	1986 - 1987		
Terry Sumner	1987 - 1995		

Appendix B: Chairs of the UBC Faculty Pension Plan Board of Trustees since 1967

Chair of the Board	Duration
Leslie G. J. Wong	1966 - 1968
Allen Baxter	1968 - 1974
Robert M. Clark	1974 - 1976
J. G. Cragg	1976 - 1980
William F. J. Wood	1980 - 1989
Stanley W. Hamilton	1990 - 2003
Joost Blom	2004 - Present

Appendix C: UBC Faculty Pension Plan Executive Directors and Board Secretaries since 1967

Name	Position(s)	Duration
H.M. Craven (Tony)	Board Secretary	1967 - 1985
Maureen Simons	Board Secretary	1985 - 1988
Marcelle Sprecher	Board Secretary, Executive Director - Operations	1989 - 1997
Dianne Perepelecta	Board Secretary, Executive Director - Operations	1997 - 2001
Cheryl Neighbour	Board Secretary, Executive Director - Operations	2001 - 2015
Orla Cousineau	Board Secretary, Executive Director, Pensions	2015 - Present
Christy McLeod	Executive Director - Investments	1994 - 1999
Diane Fulton	Executive Director - Investments	1999 - 2008
Mike Leslie	Executive Director - Investments	2008 - Present

Endnotes

In the notes below, "AR68" refers to the FPP Annual Report for 1968, "AR97" to the Annual Report for 1997, and so on.

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[1] "Plan approved by Board of Governors at meeting of March 18th, 1924", which two years later formed part of more comprehensive regulations the Board of Governors adopted for annuities and insurance (Minutes of Board of Governors Meeting, April 26th, 1926). These Board of Governors documents were attached to a letter of 16 October 1972 from William F. Heller II, Tax Counsel for TIAA, to Mr. E.A. Chater, Director of the Review and Registrations Division of the Department of National Revenue, Taxation. (Copies held by the UBC PAO.) The 1924 plan stipulated, "The only contracts in connection with the scheme are between the annuitants and the Teachers Insurance and Annuity Association."
[2] This was the thrust of Mark H. Ingraham, *Faculty Retirement Systems in Canadian Universities* (U. of Toronto Press,, 1966) , a report commissioned jointly by the Association of Universities and Colleges of Canada, the Canadian Association of University Teachers and the Canadian Association of University Business Officers.
[3] *Report of the Committee on Pensions* (committee established by UBC and the Faculty Association with W. White, UBC Bursar, as chair), 31 March 1966, para. 181.
[4] I have not traced the actual date the committee was set up, but Robert M. Clark, a Professor of Economics who held the title Academic Planner, refers in his memo to the Board of Governors dated 25 May 1966 to the committee having been set up more than two years before.
[5] Above, footnote 3.
[6] A third alternative was proposed at the Faculty Association meeting to consider the report and was included on the ballot.
[7] Memo from Robert M. Clark, Academic Planner, to Board of Governors, 25 May 1966.
[8] Held on 22 November 1966.
[9] The Board also approved the appointment of four temporary trustees to act until members of the plan could elect four trustees.
[10] Ingraham, *supra* footnote 2 at p. 10. Dr. Ingraham was invited by the Committee on Pensions to comment on its proposals for the FPP; see Robert M. Clark's memo to the Board of Governors dated 15 November 1966, "Evaluation of the Proposed University Pension Plan and TIAA-CREF by the Criteria Proposed by Dean Mark Ingraham in his Report 'Faculty Retirement Systems in Canadian Universities'". Ingraham essentially supported the model chosen.
[11] Report, above, footnote 3, paras. 19, 175.
[12] *Ibid.*, paras. 21-22.
[13] See s. 14.02 and 14.05 of the Plan text, available on the FPP website, http://faculty.pensions.ubc.ca/files/2016/07/FPPPlanRestatementSep30.pdf.
[14] A number of faculty who were around at the time have confirmed to me that this idea was a factor in the discussions around the framework for the FPP.
[15] AR72 at p. 4. I have not found any figures for how many faculty members had opted not to join the FPP. I have also not found a reference to when TIAA-CREF finally cased to be a Registered Pension Plan that Canadian faculty could contribute to. The 1972 Annual Report noted that the revenue authorities' previously announced intention to de-register had been put on hold.
[16] The UBC PAO has a copy of a letter of 23 June 1972 from H.M. Craven, the Treasurer of UBC (who was also Secretary of the FPP) to E.A. Chater, Director of the Review and Registrations Division of the Department of National Revenue, Taxation, enclosing TIAA-CREF's announcement of their registration, which UBC had received on 21 June, and asking Mr. Chater to confirm that UBC could therefore send UBC faculty's contributions to TIAA-CREF. These contributions had been held in a separate trust pending the Department of National Revenue's decision on whether TIAA-CREF could continue to offer its pension plans in Canada
[17] I have been unable to find how long TIAA-CREF's Canadian registration lasted, but it sold its Canadian business to Sun Life around 1995: AR95 at p. 3.
[18] That was the proportion at the time the rule was abolished in 2005.
[19] AR70 at p. 3 notes a one-time receipt from TIAA-CREF of $640,852, representing these contributions.
[20] AR72 at p. 4.
[21] Report of the Committee on Pensions, above, footnote 3, para. 82. The university raised its contribution from 5% to 10% in 1949 (*loc. cit.*).
[22] A good part of the Committee on Pensions' report, above, footnote 3, was devoted to the question how this integration should be done: see paras. 98-125.
[23] For an explanation of the ban and an argument for revisiting it, see Association of Canadian Pension Management, *Decumulation, The Next Frontier: Improvements for Defined Contribution and Capital Accumulation Plans* (27 March 2017) at pp. 16-17.

[24] Report of the Committee on Pensions, above, footnote 3, para. 82.
[25] AR68 at p. 5.
[26] The FPP was allowed to go 1% higher than the usual 2% indexing limit for registered plans AR76 at p. 6.
[27] AR76 at p. 11 notes that the trustees investigated the possibility of increasing benefits to retired members, but the legal obstacles to this proved insuperable. For one thing, it would have required the consent of every single member whose claims on the FPP were reduced in order to fund the increased benefits to the retirees.
[28] AR77 at p. 4.
[29] AR78 at p. 3.
[30] AR84 at p. 4. In 1975 it looked as if the 0.9% levy would have to be kept on until 1986: AR75 (insert).
[31] AR75 at p. 4.
[32] AR82 at p. 8.
[33] AR89 at p. 12; AR90 at p. 5; AR91 at p. 5.
[34] Until 1985 there was a separate MRB fund, composed solely of fixed income assets. In that year those assets were transferred to the main fund (the Balanced Fund, as it is now) and the MRB shared pro rata in the returns of the main fund: AR84 at p. 6. At the end of 1985 the MRB part of the fund was just under $10 m. out of a total fund of $274 m.: AR85 at p. 6.
[35] AR95 at p. 3; AR99 at p. 2; AR00 at p. 2, noting that 260 of those eligible for a refund had still not been located.
[36] AR07 at p. 5.
[37] AR08 at p.
[38] AR87 at p. 5.
[39] AR96 at p. 3.
[40] AR05 at p. 3.
[41] AR11 at p. 2; AR12 at p. 3.
[42] AR82 at p. 3.
[43] AR83 at p. 3; AR89 at p. 12; AR97 at p. 2.
[44] AR93 at p. 8.
[45] AR04 at p. 4.
[46] Association of Canadian Pension Management, *Decumulation, The Next Frontier: Improvements for Defined Contribution and Capital Accumulation Plans* (27 March 2017), especially at pp. 16-17.
[47] AR80 at p. 3. The change was prompted by a change in the Registered Pension Plan rules.
[48] AR68 at p. 7.
[49] Spouses of deceased members who elect to keep receiving their survivor's benefits through the FPP are not themselves members but are entitled to all the information that members receive: plan text, s. 12.01(d).
[50] AR05 at p. 3.
[51] AR07 at p. 3.
[52] To be precise, December 1 of the calendar year in which the member turns 71.
[53] This was a change in 1976: AR76 at p. 6.
[54] AR94 at p. 3.
[55] AR91 at p. 5.
[56] AR92 at p. 5.
[57] AR93 at p. 5.
[58] AR08 at p. 3.
[59] AR15 at p. 3.
[60] AR97 at p. 2.
[61] AR68 at p. 7.
[62] AR92 at p. 15.
[63] AR76 at p. 7.
[64] *Ibid.* at p. 3.
[65] AR75 at p. 8.
[66] *Ibid.* at p. 9.
[67] AR86 at p. 4.
[68] *Ibid.*
[69] AR94 at p. 3.