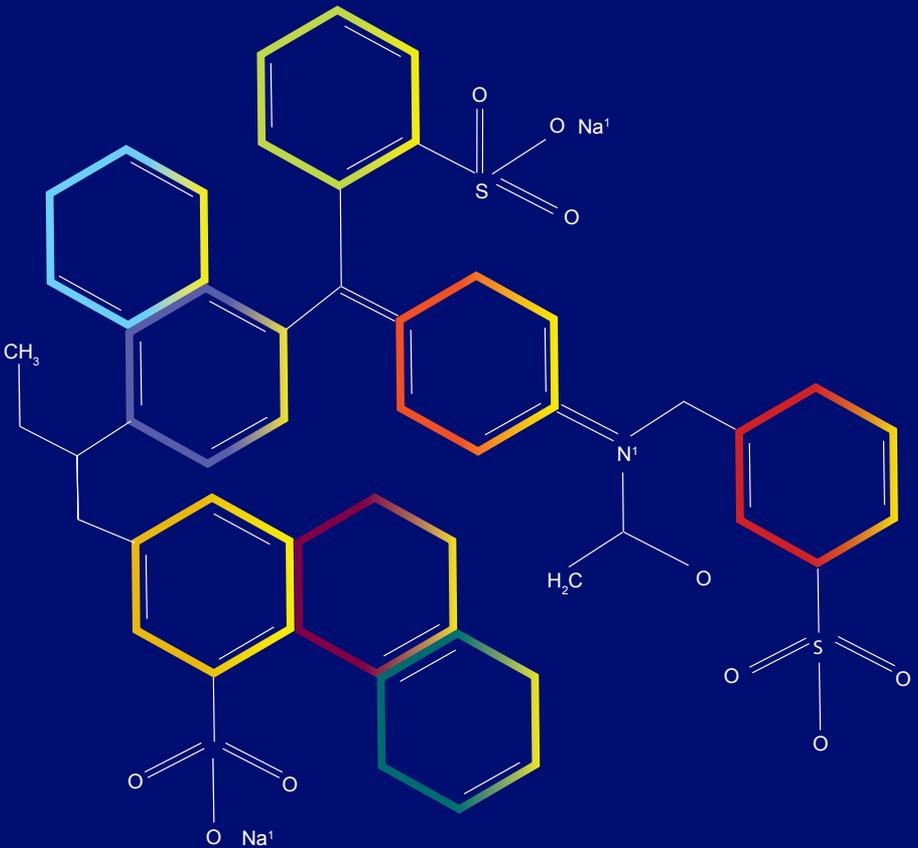




Alberta Teachers'
Retirement Fund Board

Advancing Our Formula for Success



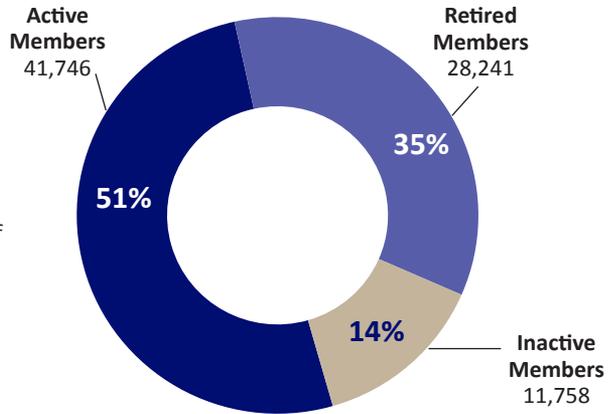
2018 ANNUAL REPORT HIGHLIGHTS

2017-18 HIGHLIGHTS

81,745

Total Plan Members

Of which 793 are members of the Private School Teachers' Pension Plan.



1,591 personal interviews with teachers

More than **51,200** pension estimates completed in *MyPension*



More than **4,500** responses to member emails



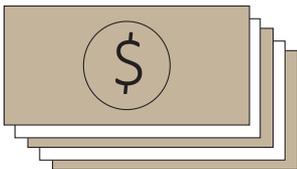
More than **26,000** incoming telephone calls



2,012 teachers attended a seminar



1,089 new pensions

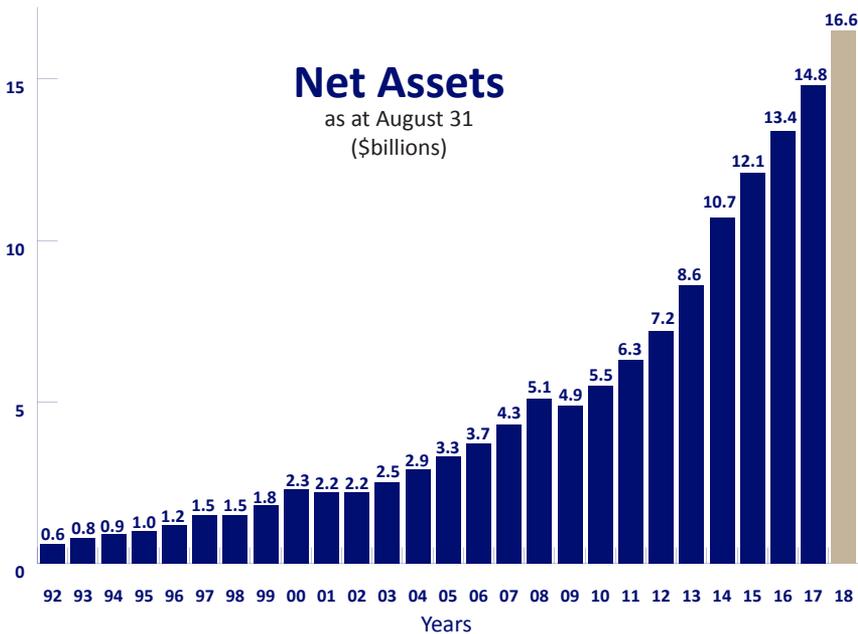


In 2017-18:

Total Contributions
\$871 million

Total Benefits Paid
\$509 million*

* An additional \$476 million was received from the Government of Alberta for benefits paid by ATRF relating to the pre-1992 period.



Market value of the plans' assets grew to **\$16.6 billion**, an **\$11.5 billion** increase in assets over the last 10 years.

9.6%
Annual rate of return

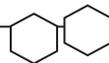
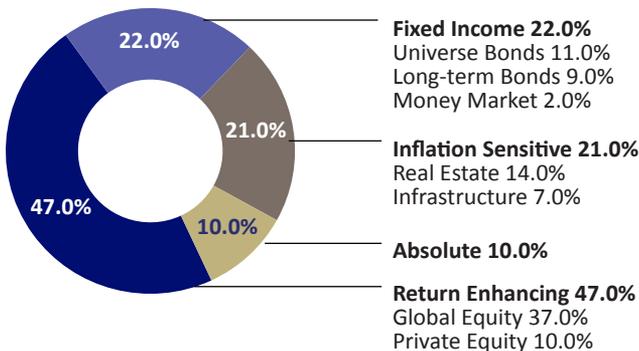
93% Funded
Teachers' Pension Plan

8.1%
Four-year rate of return

103% Funded
Private School Teachers' Pension Plan

Policy Asset Mix

as at August 31, 2018



BOARD CHAIR MESSAGE

The Alberta Teachers' Retirement Fund has an enduring mission, one that drives everything we do: to ensure the organization delivers on the pension promise by providing a secure retirement income for our plan members, now and into the future.

ATRF has achieved some significant milestones this year, as you will read about later in this report. 2018-19 also marks an important milestone for me – soon after the end of our fiscal year in August 2019, my tenure as a Board member and Chair will come to an end. The Board will announce my successor in the coming months and I look forward to welcoming the new Chair with a smooth and effective transition.

I am extremely proud to have served ATRF for the past 12 years – it has been an honour and a privilege to work alongside a dedicated Board, executive, and staff, and to have met so many of you, our members, and to share with you our deep commitment to your pension security and retirement well-being.

When I started on the Board, ATRF had 38 staff members serving just over 68,000 members. The plan's assets were approximately \$4.3 billion and the plan was 38% funded. Since then, we have gone through a major restructuring brought on by the Government of Alberta in 2007 assuming financial responsibility for all pension obligations related to service prior to 1992. That kick-started a new era at ATRF. Our assets began to grow rapidly. Today, 10 years later, the Teachers' plan is 93% funded and our assets have grown to \$16.6 billion. Our staff has increased to over 100 dedicated employees serving more than 80,000 members.

I would like to particularly express my gratitude to the Alberta Teachers'

Association for this opportunity. Also my thanks to the two CEOs who led ATRF since I joined: Emilian Groch, our past CEO, and Rod Matheson, our current CEO, who is marshalling in this exciting new era. Finally, to my fellow Board members, past and present – thank you.

For this year, I am pleased to report, ATRF remains strongly positioned for ongoing success. Ultimately, ATRF exists to serve our members. We are proud of our legacy of excellent service. At the same time, we continue to look for ways to innovate and improve. So that's why, given the opportunities our growth and organizational maturity presents, the Board approved major initiatives to advance our formula for success in our two main business areas, investments and pension services.

You will read more about these initiatives later in this report. On behalf of the Board, I am pleased with the strategic planning work completed so far to deliver on two key initiatives that will enable ATRF to continue to provide pension certainty, stability and sustainability – alongside excellent and responsive service.

Our Board remains ever mindful of the challenges facing pension plans and continues to closely monitor the financial health of the plans, prudently taking actions to ensure long-term stability, security and sustainability. In recognition of that, in 2017-18 the Board completed a comprehensive update to our funding policy. This was a significant accomplishment, as it provides an important tool to establish our key funding objectives and risk framework, both of which will be used by the Board to make decisions related to funding and contribution rate setting. Ultimately, our new funding policy will assist the Board in continuing our path to

full funding while ensuring stability and contribution rate affordability – and will be an integral part of the new funding-focused investment approach we developed in Project Whiteboard (see page 12 for more information on this initiative).

Moreover, the Board takes an active oversight role in the key areas of ATRF's operations through our Audit and Finance, Governance, Human Resources and Compensation, and Investment Committees. Our governance role ensures that as ATRF grows and matures, it is focussed on, as the theme for our annual report says, "advancing our formula for success."

Funding and contribution rate update

Maintaining a well-funded plan is central to ATRF's mission and operations, and I'm proud to report that the funding of the plans continued to improve in 2017-18. The market value of the plans' assets has increased to \$16.6 billion.

The funded status of the Teachers' Pension Plan (TPP) continues to steadily improve and remains on a solid trajectory to being fully funded. The plan's deficiency – the difference between the actuarial value of the plan's assets and its liabilities – decreased from \$1.52 billion to \$1.19 billion. The ratio of funding assets to funding liabilities increased to 93% from 90% last year.

I am pleased to note that the Private School Teachers' Pension Plan (PSTPP) has reached the important milestone of being fully-funded this year. The funding ratio is now 103% compared to 98% last year.

Strong investment returns allowed the Board to continue taking prudent measures to reinforce the plans' long-term sustainability and manage risks. For example, the discount rate used to evaluate the plan liabilities has been further reduced from 5.4% to 5.2% for the TPP (and 5.3% for the PSTPP) to continue building cushions to be used in difficult times.



As you know, contribution rates were reduced effective September 1, 2018, by a total of 1.42% of teachers' pay for the TPP and 1.1% for the PSTPP.

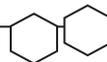
I am pleased to announce that the contribution rates will remain the same next year (2019-20) for both plans.

Acknowledgements

As ever, it remains my privilege to undertake this work alongside my fellow ATRF Board members, and with the employees of ATRF. I want to take this opportunity to acknowledge everyone's hard work in delivering the pension promise, and working collaboratively to advance our formula for success.

A handwritten signature in black ink that reads "Greg Meeker".

Greg Meeker
Board Chair



CEO'S MESSAGE

At ATRF, everything we do is about advancing our formula for success. From our investment professionals to our pension service experts, from IT and Legal partners to our HR and Finance staff, we strive to continually find the right balance of elements to advance our formula for success.

And what is success for ATRF? Quite simply, it's defined in our mandate and mission statement: to deliver the benefits established by plan sponsors for current and future plan members. This requires a plan that is sustainable over the long term, at a cost and risk level acceptable to the plan sponsors.

Our assets have experienced tremendous growth over the past decade – reaching \$16.6 billion, up from \$5 billion just 10 years ago, and we expect the asset base to continue to grow. Our membership has also grown significantly – up by nearly 20% over the past decade, including a 40% increase in retired members. This overall growth, combined with significant organizational maturity, led us to make the strategic decision this past year to re-evaluate and re-think how we approach our two core business areas, investments and pension services. This resulted in two important initiatives we've called Whiteboard and Lantern.

With Project Whiteboard, we spent much of the past year examining whether the strategies we have used to manage the assets successfully in the past will still be optimal in the future. By the end of the year we defined the way we will approach investing and constructing an investment portfolio to ensure we continue to deliver on our pension promise, while reliably achieving the necessary returns at an appropriate risk and cost. We'll achieve this by building a total portfolio grounded in a deep understanding of our liabilities, and the factors that drive our investment performance.

We continue to enjoy strong investment returns, and we've seen our funded ratio continue to improve to the point where we are approaching full funding for the first time in the history of the Teachers' plan. But we know that good times don't last forever, and we need to continue to safeguard what our plan members and ATRF have worked so hard to achieve over many years.

In the coming year, we will work on implementation plans for a transition of our new approach to investment management, an initiative that we expect will take several years. In a very real sense, this project is all about advancing our formula for success.

On a similar front, Project Lantern also got underway in 2017-18, and is all about assessing and ultimately modernizing our service delivery model for years to come. ATRF has long prided itself on the high level of customer service we deliver and the foresight and innovation we demonstrated throughout the years, including offering new channels such as online services earlier than many other plans. Plan members and employers' needs and expectations on how they want to interact and transact with us are also changing. To continue to meet our stakeholders' needs and bring value, we must continuously evolve and adapt. This is what Project Lantern is about. There's still a lot of work to do, and we'll provide updates as we move ahead. Please see page 14 for more information.

But this upcoming change doesn't mean ATRF hasn't continued to deliver results and excellent service. Over the past year, our Pension Services and Pension Finance teams continued to provide plan members with what they needed, the first time and when, where and how they wanted it. On average, \$75 million in pensions were paid

to retired members accurately and on time every month, while our staff fielded more than 26,000 telephone calls, and delivered 38 seminars to more than 2,000 teachers at 23 locations across Alberta and 10 Teachers' conventions. More than 1,000 plan members embarked on their retirement journey in 2017-18 and ATRF was there to support them along the way.

Acknowledgements

I would like to thank the members of our Board for their continued support and guidance. I would also like to give a big thanks to our entire team of dedicated and committed employees. Across ATRF, our staff has not only engaged in Projects Lantern and Whiteboard, but have continued to excel in delivering the pension promise on a daily basis as we grow the fund and work in partnership with our plan members and stakeholders.

I would also like to acknowledge two significant changes to our executive and management teams. Earlier this year, Margot Hrynyk, Vice President, Corporate Services, announced her retirement after more than 12 years with ATRF. Margot has been an invaluable resource to me, and has been instrumental in the success of our organization. Also, after more than 36 years with ATRF providing dedicated and professional service to our clients, Jill Bruce, Manager, Member Services, is retiring. I want to congratulate both Margot and Jill on their successful careers, and wish them both well-earned retirements.



Rod Matheson
Chief Executive Officer

THE ATRF EXECUTIVE



Rod Matheson
Chief Executive Officer



Tina Antony
VP, General Counsel &
Corporate Secretary



Derek Brodersen
Chief Investment Officer



Albert Copeland
VP, Information &
Technology



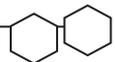
Margot Hrynyk
VP, Corporate Services



Julie Joyal
VP, Pension Services



Myles Norton
VP, Finance



PENSION SERVICES

Providing excellent service to plan members

Our members are at the core of ATRF. They drive everything we do, which is why our customer service statement is: **We provide what you need the first time.** Our caring, knowledgeable and dedicated team provides personalized services to plan members to help them understand their ATRF pension plan, and be able to make informed decisions.

Whether members prefer to speak directly with an ATRF representative or access information through our website or the *MyPension* portal, our goal is to provide an exceptional member experience at every point of contact.

Obtaining pension information is as simple as contacting our office by phone, email, online secure messaging or in person. Members who get timely and accurate pension information are better prepared for decisions they need to make at various stages of their career.



What we've done

Some of the initiatives we accomplished in 2017-18 include:

- Embarking on Project Lantern (see page 14)
- Engaging with the 94 employers participating in the pension plan in March 2018 by surveying them for the first time in many years
- Continuing to deliver outstanding levels of service as per our benchmarks
- Listening and learning from our peers and clients, including the launch of the "What's your retirement story?" outreach campaign

You can read more about all these initiatives and accomplishments in our complete annual report, available on atrf.com.

These initiatives speak to our ongoing commitment to engage with our stakeholders in order to effectively serve our clients and meet their needs.

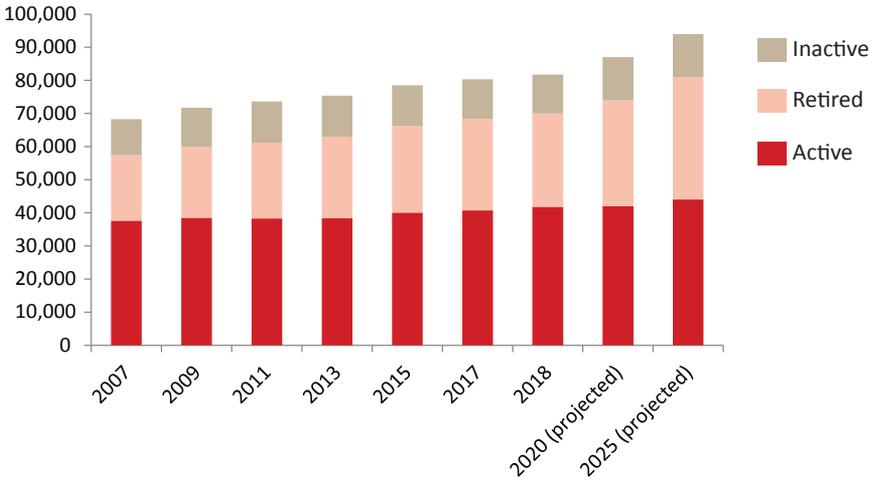
Number of new pensions					
2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
1,089	1,171	1,074	1,080	1,214	1,131

New retired members in 2017-18 who responded to our survey gave a **97%** satisfaction rating for the overall service received from ATRF during their retirement process.

We expect about 1,000 new retired members each year over the next 10 years.

Plan membership over the years

In the past decade, the membership base has grown by nearly 20%. The plans are projected to reach an estimated 95,000 members by 2025, with retired members representing around 40% of the membership.



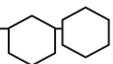
Plan member statistics

at August 31	2018	2015	2010	2005	2000
Active and disabled member average age	42	41.8	41.7	42.4	42.7
Active and disabled member average years of pensionable service	11.4	11.2	11.1	12.2	12
Retired member average age	71.5	70.4	68	68	68
New retired member average age	59.7	60	59	58	57.8
Average pensionable service of new retired members	25.3	25.6	26.2	26.4	26.6

930 retired members are age **90** or older; **34** members are centenarians.

The oldest plan member is **108** years old, and has been receiving her pension for **44** years.

The average annual pension in payment is **\$32,422**, an increase of 2.4% over last year.



FUNDING

Plan funding objectives

The ATRF Board established a funding policy with principles and guidelines that govern how the plans are funded.

The **primary funding objective** is benefit security, which is a crucial element of a plan's sustainability.

The plan may not be fully funded in every year depending on the economic and demographic environments.

Keeping contribution rates stable is the **second funding objective**. The goal is to have contributions remain relatively stable, avoiding, whenever possible, large up and

down adjustments in pension deductions on teachers' pay.

The cost of the plans should be sustainable over time, and should reflect the long-term view of the plans' assets and liabilities. This supports the **third funding objective**: inter-generational equity.

To achieve these funding objectives, there are various risk management tools that are used, mainly around building reserves when times are good that can then be used for rainy days.

On course to full funding

ATRF regularly conducts actuarial funding studies to assess the value of the plans' liabilities compared to their assets and to ensure adequate funding. An actuarial valuation is a report on the health of the plans.

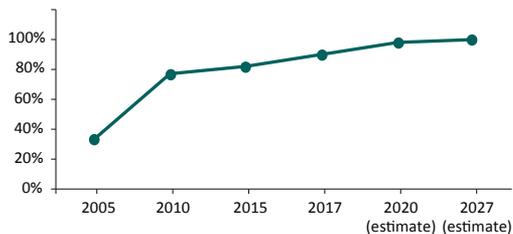
The funded status of the plans based on the most recent actuarial valuations as at August 31, 2018 is:

Teachers' Pension Plan (TPP) Post-1992 Period		Private School Teachers' Pension Plan (PSTPP)	
Funding Value of Assets	\$15.78 billion	Funding Value of Assets	\$78.46 million
Funding Liabilities	\$16.97 billion	Funding Liabilities	\$76.34 million
Funding Deficiency	\$ 1.19 billion	Funding Surplus	\$ 2.12 million
Funded Ratio	93%	Funded Ratio	103%

Based on these valuations, the funded status of the Teachers' Pension Plan (TPP) continues to steadily improve and is on a good trajectory to being fully-funded.

The Private School Teachers' Pension Plan (PSTPP) has reached the important milestone of being fully-funded this year.

TPP Funded Ratio



Contribution rates

Contribution rates were reduced effective September 1, 2018 by a total of 1.42% of teachers' pay for the Teachers' Pension Plan and 1.1% for the Private School Teachers' Pension Plan.

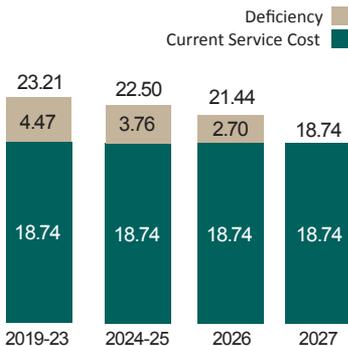
These current rates, as shown in the following tables, remain adequate and will stay the same for the next school year (2019-20).

Teachers' Pension Plan (TPP)	
Contribution Rates	% of pensionable salary
up to YMPE ¹	10.17%
above YMPE	14.52%
Total Teachers' Contribution	11.92%
Total Government Contribution	11.29%

Private School Teachers' Pension Plan (PSTPP)	
Contribution Rates	% of pensionable salary
up to YMPE ¹	8.76%
above YMPE	12.52%
Total Teachers' Contribution	10.27%
Total Employer Contribution	9.73%

¹ YMPE: Yearly Maximum Pensionable Earnings used by the Canada Pension Plan (\$57,400 in 2019)

Based on the August 31, 2018 actuarial valuation, the total contribution rate for the TPP is 23.21% of teacher salaries, consisting of a current service cost of 18.74% of salaries and total deficiency contributions of 4.47% of salaries. The deficiency contributions are planned to decrease according to the following schedule.



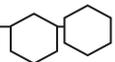
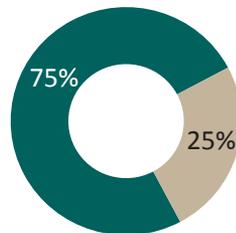
Rates as at September 1

Of course, these projections assume that all assumptions remain unchanged and will be realized as expected. Actual experience will vary and the actual results recognized in future actuarial valuations can be better or worse than these projections. Therefore the rates illustrated above may vary.

Based on the August 31, 2018 actuarial valuation, the total contribution rate for the PSTPP is 20.00% of teacher salaries, representing the current service cost (i.e. the cost of benefits being accrued in a year). There are no longer deficiency contributions required under the PSTPP since this plan no longer has a deficit.

Did you know?

- The TPP is a relatively young plan, projected to have positive cash flow over the next several years.
- Approximately 75 cents of every pension dollar comes from investment returns, and 25 cents from contributions.



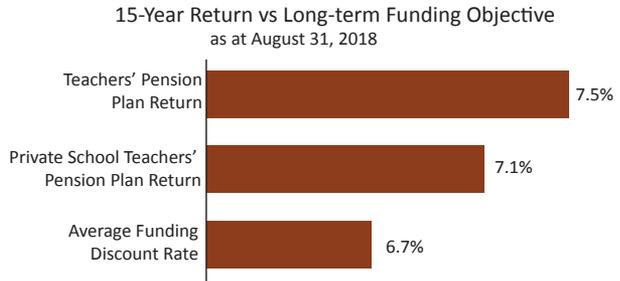
INVESTMENTS

Investment Performance

With a few exceptions, financial markets around the world had another strong year in 2018. In this ongoing bull market, our fund returned 9.6% for the year, which exceeded both our long-term funding objective and the fund's benchmark for the year. One year never tells the story, however. The plan's funding depends on achieving sufficient return over long-time periods, not just in one year. Over the past four years, the fund had an annual return of 8.1%, and over the past 10 years the fund returned an average of 7.4% annually. These strong investment returns are a primary reason why the funded position of the plan has improved significantly over this time.

Rising corporate profits and low interest rates provided a good environment for equity

markets, which performed very well this year. ATRF's private equity portfolio had a particularly strong year, with returns in excess of 20%. While interest rates remain low in an historical context, they have been moving consistently higher, which limited the return from our bond portfolios. Aside from private equity, our other private market assets, such as infrastructure and real estate, recorded strong returns, as they have since the inception of these programs eight years ago.



Project Whiteboard

ATRF has grown significantly over the last several years, both organizationally and in assets. As mentioned earlier, we have also enjoyed very strong investment returns and have seen our funded ratio improve dramatically, to the point where we are nearing full funding for the first time in decades. But we know the bull market won't go on forever, and we don't want to lose what our plan members and ATRF have worked so hard to achieve over so many years.

So, we decided to take a step back and think about whether the strategies we have used to manage the assets successfully in the past will continue to work in the future. To do that, we embarked on Project Whiteboard. The starting point for the project was to assume that rather than owning a diversified portfolio of assets worth \$16.6 billion, we held \$16.6 billion in cash. Then we asked ourselves how we would best construct a portfolio from scratch to invest that \$16.6 billion, given the profile of our liabilities. After going through a lengthy strategic exercise to consider this question, we then compared the results to the way we have actually been managing the assets - and determined the changes that needed to be made.

We are now working out implementation plans for a transition of our approach to investment management that is expected to take several years. In a very real sense, this project is all about advancing our formula for success.

2018 Deal Highlights

39 Niagara

39 Niagara is a mixed-use development in Toronto, Ontario comprised of 501 multifamily rental units and approximately 54,210 square feet of retail space. The project is situated at the corner of Front and Bathurst Streets, is pursuing LEED designation, and will provide about 25,000 square feet of indoor/outdoor amenity space. ATRF owns a partial interest in the development alongside the Minto Group.



Coastal Multifamily Portfolio

The Coastal Multifamily Portfolio represents a collection of 3,864 units in seven high-quality multifamily properties in California, Hawaii and New York. Four of the seven deals are situated in Los Angeles. The portfolio is a joint venture between Carmel Partners (51%) and Brookfield Asset Management (49%); ATRF owns a partial interest, alongside Brookfield Asset Management.



LBC Tank Terminals

ATRF invested in a global provider of responsible logistics solutions that owns and operates midstream and downstream facilities for bulk liquid chemicals, oil and refined petroleum products through a global network of storage terminals located in Europe, the U.S. and China. Together, these provide a storage capacity of two million cubic meters. ATRF partnered with Ardian, a Paris-based infrastructure manager for the acquisition of a 35% stake in LBC Tank Terminals.



Southern Capital

ATRF contributed to a restructuring of Mulberry Asia Fund II, a fund managed by Southern Capital, a Southeast Asian-focused private equity fund manager. ATRF invested in three assets in the fast-growing Asia telecom and healthcare markets from the Mulberry fund. ATRF participated in this investment alongside AlpInvest Partners, a global private equity secondaries manager.



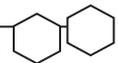
U.S. Logistics Fund 1

U.S. Logistics Fund 1 represents a programmatic club investment targeting the development of Class A industrial/logistics assets in key U.S. markets. The program currently contains three seed investments in Seattle, Portland and Atlanta representing approximately 340,000 square feet of existing industrial and 2.6 million square feet of buildable industrial/logistics space. ATRF owns a partial interest in the three projects alongside CRG.



Verscend

ATRF invested into Verscend Technologies, a U.S.-based leader in data-driven healthcare solutions, to facilitate the acquisition of Cotiviti Holdings, Inc., a provider of payment accuracy and analytics-driven solutions focused primarily on the healthcare industry. ATRF participated in this investment alongside Veritas Capital, a New York-based private equity firm investing in companies that provide critical technology and technology-enabled solutions to government and commercial customers worldwide.



PROJECT LANTERN

In 2018, ATRF embarked on a multi-year initiative to ensure we continuously meet our clients' expectations. We affectionately call this Project Lantern. It's all about assessing and modernizing how we deliver services to our members and employers for years to come. It's about understanding how our clients access services, interact and transact with us, now and in the future.

Project Lantern is also about connecting with our clients using various channels, to continue creating value and meeting their needs, by being even more proactive and personalized. We want to continue to provide high-value, timely and relevant information to each of our clients. We are guided by our customer service statement: providing what you need the first time.

The name Project Lantern came from an internal contest of suggestions from ATRF staff. The name captures the essence of this project and all the opportunities it presents: vision, evolution, and innovation, for today and tomorrow.

As with everything we do, we need to ensure we have the right tools, systems, processes and talent to be able to deliver on our promise.

We are listening

This last year we focused on information gathering and thoughtful planning. We have assessed where we are and where we want to be, mapped the way we think and operate, and explored ideas. We are also learning and leveraging what others are doing in the pension and customer service industries.

We are bringing together the right people to create a service formula that will result in maximum client satisfaction. We have



gathered input from members, employers, and partners such as the Alberta Teachers' Association (ATA), the Alberta Retired Teachers' Association (ARTA) and the Alberta School Employee Benefit Plan (ASEBP), to find out what they like about ATRF services and tools, and what they wish to see going forward.

We heard consistent themes, aligned with our service-guiding principles: personalized, proactive, seamless, transparent, and simple. We will continue to listen and connect with our clients—their feedback will help us advance our formula for success now and into the future.

It's an exciting time. Being involved in shaping and building our service offerings for years to come is a unique opportunity to make a lasting difference.

Project Lantern is an important initiative and significant investment that will bring many benefits to ATRF's clients. We will continue to share the progress of this project throughout our journey.

CORPORATE DIRECTORY

ATRF Board



Greg Meeker
Board Chair



John Butler



Catherine Connolly



Karen Elgert



Maria Holowinsky



Sandra Johnston



Marvin Romanow



Karen Stangherlin

Board Committees

Investment Committee

Chair Catherine Connolly,
Vice Chair Marvin Romanow,
John Butler, Karen Elgert,
Maria Holowinsky, Sandra Johnston, Greg Meeker,
Karen Stangherlin

Audit and Finance Committee

Chair Karen Stangherlin,
Vice Chair Greg Meeker,
John Butler, Maria Holowinsky

Governance Committee

Chair Maria Holowinsky,
Vice Chair John Butler,
Catherine Connolly, Sandra Johnston

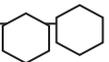
Human Resources and Compensation Committee

Chair Sandra Johnston,
Vice Chair Karen Elgert,
Marvin Romanow, Karen Stangherlin

Review Committee

The committee consists of the entire Board.

ATRF was proud to have again been selected as one of Alberta's Top 70 Employers for 2018. This is the second consecutive year the organization has been recognized as an employer that leads their industry in offering exceptional places to work.



For more information, please view the
full Annual Report online at ATRF.com



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