



**PENSION RESERVES
INVESTMENT
MANAGEMENT BOARD**

FISCAL YEAR 2019 OPERATING BUDGET

As Approved by the PRIM Board on May 15, 2018

Deborah B. Goldberg, Chair

Michael G. Trotsky, CFA, Executive Director and Chief Investment Officer

BUDGET DISCUSSION

The Pension Reserves Investment Management (PRIM) Board's fiscal year (FY) 2019 Operating Budget reflects the investment management, advisory, and operational costs necessary to implement, measure, and monitor the approximated \$74 billion in investments of the Pension Reserves Investment Trust (PRIT) Fund.

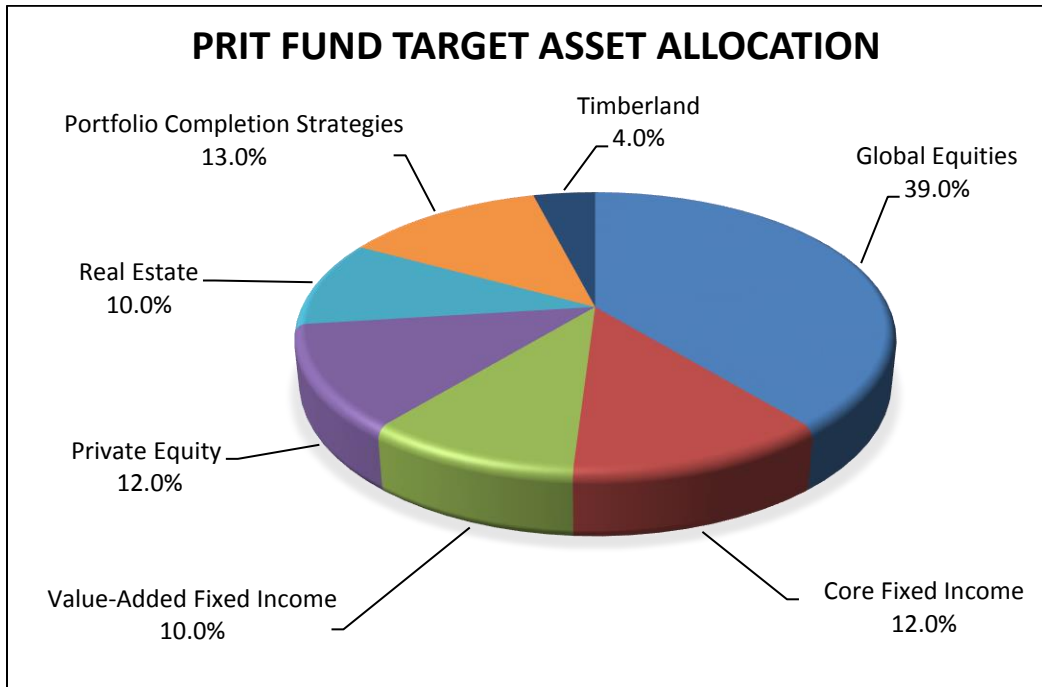
Budget Highlights

The projected FY 2019 budget of \$408.3 million is 55.2 basis points (bps) of projected average PRIT Fund assets (\$74 billion), a \$49.2 million, or 13.7%, budget increase from the prior year. As is our custom, budgeted expenses for FY 2019 are conservative and foresee continued asset growth. Actual expenses incurred may vary because most expenses are a function of asset levels and investment performance is not predictable.

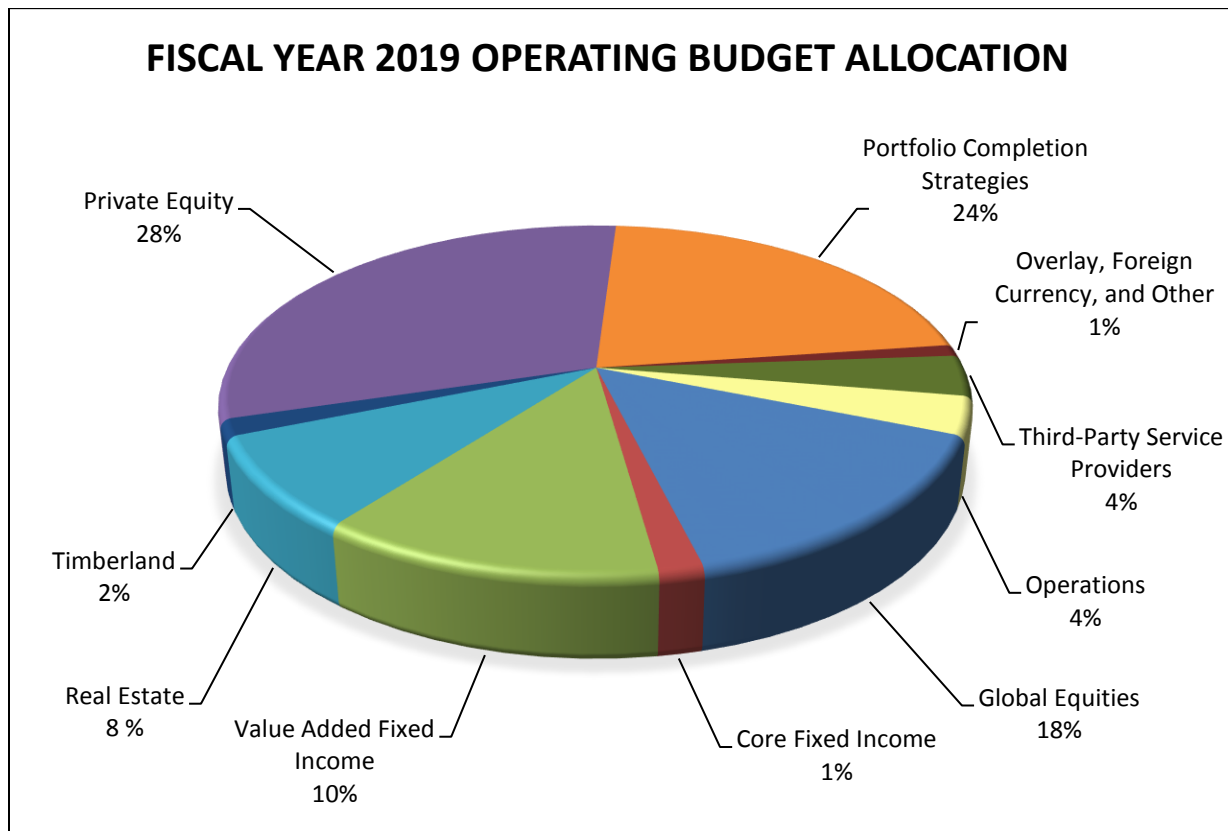
Investment Management Fees and Third-Party Service Providers comprise \$392.4 million, or 96.1%, of the total budget. Investment Management Fees increased by \$45 million, or 13.5%, due primarily to growth in assets. Projected costs for Third-Party Service Providers increases \$1.4 million, or 10.6%, mainly in support of PCS and other credit opportunities initiatives.

Operations comprise \$15.9 million, or 3.9%, of the total budget. Operations increases by \$2.7 million, or 20.9%, due primarily to the impact of McLagan's updated compensation data as well an increase in actual and projected staff size.

The PRIM Board's current target asset allocation, approved in February 2018, is as follows:



Based on this target asset allocation, PRIM's Fiscal Year 2019 Operating Budget allocation is projected to be as follows:



PENSION RESERVES INVESTMENT MANAGEMENT BOARD

Fiscal Year 2019 Budget Summary

	<u>FY19</u> <u>(bps)#</u>	<u>FY18</u> <u>(bps) #</u>	<u>FY 2019</u>	<u>FY 2018</u>
<u>Investment Management Fees ^</u>				
Global Equities	21.5	19.2	\$ 73,160,000	\$ 53,850,000
Core Fixed Income	7.0	7.6	6,110,000	5,900,000
Value Added Fixed Income	76.3	85.5	43,332,500	45,140,000
Real Estate	54.5	47.4	33,635,000	30,286,000
Timberland	26.7	23.1	6,825,000	5,505,000
Private Equity	157.4	162.2	114,600,000	109,960,000
Portfolio Completion Strategies (PCS)	118.5	119.9	96,675,000	78,100,000
Overlay, Foreign Currency, and Other	28.1	63.8	3,135,000	3,754,000
	51.0	52.0	377,472,500	332,495,000
<u>Third-Party Service Providers</u>				
Custodian	0.1	0.1	805,000	805,000
Advisory Services - General	0.2	0.2	1,250,000	976,000
Advisory Services - Real Estate & Timberlands	2.5	2.6	2,200,000	2,315,000
Advisory Services - Private Equity	2.1	2.2	1,500,000	1,500,000
Advisory Services – Portfolio Completion Strategies	8.3	8.7	6,800,000	5,665,000
Audit & Tax	0.1	0.1	436,000	428,000
Legal	0.1	0.1	450,000	450,000
Governance	0.0	0.0	295,000	265,000
Risk Measurement and Investment Analytics	0.2	0.2	1,200,000	1,100,000
	2.0	2.1	14,936,000	13,504,000
<u>Operations</u>				
Compensation & Employee Benefits	1.7	1.5	12,559,500	9,780,000
Occupancy	0.2	0.2	1,110,000	1,130,000
Insurance	0.0	0.0	324,200	313,000
General Office Expenses	0.0	0.0	290,000	315,000
Computer & MIS Expenses	0.1	0.2	1,060,000	1,057,000
DD Travel, Prof. Develop, Dues & Subscriptions	0.1	0.1	452,000	452,000
Client Service	0.0	0.0	94,000	94,000
	2.1	2.1	15,889,700	13,141,000
Total Operating Budget	55.2	56.1	\$ 408,298,200	\$ 359,140,000

Basis points (bps) for Investment Management Fees are calculated by dividing the budgeted fees by the estimated assets under management (AUM) for each asset class. Basis points for Advisory Services for Real Estate & Timberlands, Private Equity, and PCS are also calculated based upon each asset classes estimated AUM. For all other expenses, the bps are calculated based upon the total PRIT Fund AUM, which is estimated to be \$74 billion and \$64 billion for FY19 and FY18, respectively.

^ No investment performance, incentive, or carried interest fees are budgeted.

Global Equities

<u>Domestic Equities</u>	<u>FY 2019</u>	<u>FY 2018</u>
SSgA (S&P 500 Index)	\$ 1,020,000	\$ 870,000
SSgA (Russell 2500 Index)	150,000	160,000
Frontier	3,170,000	2,900,000
Huber	3,040,000	2,710,000
Riverbridge	1,670,000	1,300,000
Summit Creek	2,940,000	2,280,000
New U.S. Micro Cap Managers	3,500,000	-
	15,490,000	10,220,000
<u>International Equity</u>		
SSgA (World Ex-US Index)	470,000	400,000
Marathon	9,710,000	8,210,000
Baillie Gifford	6,560,000	5,370,000
Mondrian Investment	3,740,000	3,040,000
The FIS Group	870,000	700,000
Acadian	1,840,000	1,890,000
AQR	1,170,000	1,050,000
LMCG	380,000	400,000
Strategic Global	840,000	850,000
TimesSquare	1,550,000	2,130,000
	27,130,000	24,040,000
<u>Emerging Markets Equity</u>		
SSgA (EM Index)	-	370,000
Acadian	2,860,000	1,490,000
Wasatch	1,340,000	970,000
Acadian (Frontier)	2,140,000	1,760,000
Baillie Gifford	5,990,000	4,130,000
City of London Investment **	1,020,000	800,000
Driehaus	3,790,000	2,910,000
Harding Loevner	3,670,000	3,230,000
Pzena	6,450,000	3,930,000
AQR (Performance Fees Only) ^	-	-
T. Rowe Price	3,280,000	-
	30,540,000	19,590,000
<u>Total Global Equities</u>	\$ 73,160,000	\$ 53,850,000

** This portfolio invests in closed-end and commingled funds. Budgeted fees exclude the costs of underlying closed-end and commingled funds, which charge average fees ranging from 1% to 2% of net assets under management.

^ No investment performance, incentive, or carried interest fees are budgeted.

Pension Reserves Investment Management Board
 Fiscal Year 2019 Operating Budget

	<u>Core Fixed Income</u>	
	<u>FY 2019</u>	<u>FY 2018</u>
Blackrock (BA Index)	\$ 160,000	\$ 160,000
Blackrock (TIPS Index)	260,000	100,000
Blackrock (ILB)	1,670,000	1,570,000
Blackrock (STRIPS Index)	200,000	290,000
PIMCO	970,000	820,000
Loomis Sayles	1,650,000	1,610,000
Community Capital	120,000	120,000
AFL-CIO *	200,000	200,000
Access Capital	320,000	660,000
Progress	560,000	370,000
<u>Total Core Fixed Income</u>	<u>6,110,000</u>	<u>5,900,000</u>

	<u>Value-Added Fixed Income</u>	
Fidelity	1,240,000	1,180,000
Loomis Sayles	1,910,000	1,770,000
Shenkman	1,320,000	1,240,000
Eaton Vance *	4,630,000	4,300,000
Voya *	3,000,000	2,800,000
PIMCO	1,280,000	1,190,000
Ashmore *	3,220,000	2,960,000
Investec	1,380,000	1,000,000
Pictet	1,440,000	1,000,000
Stone Harbor	712,500	900,000
Distressed Debt – Various Managers *	21,000,000	23,500,000
Other Credit Strategies – Various Managers	2,200,000	3,300,000
<u>Total Value-Added Fixed Income</u>	<u>\$ 43,332,500</u>	<u>\$ 45,140,000</u>

* Investments are in investment structures (commingled funds, partnerships, etc.) where management fees are not directly paid to the investment managers by PRIM, but rather fees are indirectly paid via a reduction of PRIM's investment.

Pension Reserves Investment Management Board
 Fiscal Year 2019 Operating Budget

Real Estate

<u>REITs</u>	<u>FY 2019</u>	<u>FY 2018</u>
INVESCO	\$ -	\$ 1,280,000
CenterSquare	2,890,000	2,640,000
Brookfield	3,220,000	1,490,000
Presima	580,000	530,000
	<u>6,690,000</u>	<u>5,940,000</u>

Core Strategy

AEW *	7,500,000	7,300,000
INVESCO *	3,900,000	3,800,000
JP Morgan *	3,300,000	3,700,000
LaSalle *	5,600,000	5,285,000
Potential New Core Manager	2,500,000	-
	<u>22,800,000</u>	<u>20,085,000</u>

Non - Core Strategy

Non-Core Investments *	4,085,000	4,201,000
New Boston Fund *	60,000	60,000
	<u>4,145,000</u>	<u>4,261,000</u>

Total Real Estate

\$ 33,635,000 **\$ 30,286,000**

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Pension Reserves Investment Management Board
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Timberland

	<u>FY 2019</u>	<u>FY 2018</u>
Forest Investment Associates *	\$ 2,450,000	\$ 2,200,000
Campbell Group *	4,375,000	3,305,000
<u>Total Timberland</u>	<u>6,825,000</u>	<u>5,505,000</u>

Private Equity

Venture Capital

Domestic Venture Capital *	27,500,000	29,660,000
International Venture Capital *	3,500,000	3,000,000
	<u>31,000,000</u>	<u>32,660,000</u>

Special Equity

Domestic Special Equity *	60,600,000	56,700,000
International Special Equity *	23,000,000	20,600,000
	<u>83,600,000</u>	<u>77,300,000</u>

Total Private Equity

<u>\$ 114,600,000</u>	<u>\$ 109,960,000</u>
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Portfolio Completion Strategies (PCS)

	<u>FY 2019</u>	<u>FY 2018</u>
Replication Strategies	\$ 350,000	\$ 125,000
PAAMCO – Hedge Fund-of-Funds * <	6,825,000	3,700,000
Direct Hedge Funds*	31,500,000	31,300,000
Separately Managed Hedge Fund Accounts*	30,000,000	29,875,000
Emerging Manager Program*	2,500,000	-
Risk Premia *	7,300,000	7,200,000
Real Assets *	10,500,000	4,100,000
Equity Hedge Strategy *	7,700,000	1,800,000
<u>Total PCS</u>	<u>96,675,000</u>	<u>78,100,000</u>

Overlay, Foreign Currency and Other

Parametric (Overlay)	475,000	475,000
Russell (Foreign Currency)	660,000	425,000
Portable Alpha Wind-Down <	-	4,000
Private Natural Resources Wind-Down *	2,000,000	2,850,000
<u>Total Overlay, Foreign Currency and Other</u>	<u>\$ 3,135,000</u>	<u>\$ 3,754,000</u>

* Investments are in investment structures (commingled funds, partnerships, etc.) where management fees are not directly paid to the investment managers by PRIM, but rather fees are indirectly paid via a reduction of PRIM's investment.

< Excludes costs of underlying hedge funds, which charge average fees ranging from 1% to 2% of net assets under management, plus performance fees of up to 20% of excess returns. These costs are embedded in net hedge fund performance and grow in proportion to the assets under management.

Third-Party Service Providers

<u>Custody</u>	<u>FY 2019</u>	<u>FY 2018</u>
Master Custody Services	\$ 650,000	\$ 650,000
OTC Valuation	95,000	95,000
GASB Reporting and Other	60,000	60,000
	805,000	805,000

Advisory Services - General

Investment Advisor - Public Markets	540,000	320,000
Investment Advisor - Asset Allocation	225,000	225,000
Legislative Restrictions & Benchmarking	110,000	110,000
Communications	100,000	83,000
Compensation and Human Resources	200,000	100,000
Currency Trading Analysis, Other	75,000	138,000
	1,250,000	976,000

Advisory Services - Real Estate and Timberlands

Investment Advisor - Real Estate and Timberlands	800,000	940,000
Debt Compliance and Reporting	300,000	275,000
Direct Investment Advisory & Other Advisory Projects	1,100,000	1,100,000
	2,200,000	2,315,000

Advisory Services - Private Equity

Investment Advisor - Private Equity	1,500,000	1,500,000
	1,500,000	1,500,000

Advisory Services – Portfolio Completion Strategies

Investment Advisor - Hedge Funds & PCS	1,300,000	900,000
Managed Account Platform Provider	5,500,000	4,765,000
	\$ 6,800,000	\$ 5,665,000

Third-Party Service Providers (continued)

<u>Audit and Tax</u>	<u>FY 2019</u>	<u>FY 2018</u>
Annual Financial Statement Audits	\$ 276,000	\$ 270,000
Agreed-Upon Procedures	60,000	58,000
Tax Services & Other	100,000	100,000
	<u>436,000</u>	<u>428,000</u>
<u>Legal</u>		
Outside Counsel	450,000	450,000
	<u>450,000</u>	<u>450,000</u>
<u>Governance</u>		
Proxy Voting Services	180,000	150,000
Council of Institutional Investors	30,000	30,000
Board Education	20,000	20,000
Advisory Services and Other	65,000	65,000
	<u>295,000</u>	<u>265,000</u>
<u>Risk Measurement and Analytics</u>		
Risk Measurement Systems	720,000	700,000
Investment Tools and Analytics	480,000	400,000
	<u>1,200,000</u>	<u>1,100,000</u>
<u>Total Third-Party Service Providers</u>	<u>\$ 14,936,000</u>	<u>\$ 13,504,000</u>

*Pension Reserves Investment Management Board
Fiscal Year 2019 Operating Budget*

Operations

Compensation & Employee Benefits

	<u>FY 2019</u>	<u>FY 2018</u>
Full-Time Staff (including vacant positions)	\$ 12,300,000	\$ 9,577,000
Dental and Vision	8,500	8,000
Disability	58,000	55,000
Medicare Tax	178,000	125,000
Unemployment Contingency	15,000	15,000
	<u>12,559,500</u>	<u>9,780,000</u>

Occupancy

Lease	1,040,000	1,025,000
Utilities	60,000	60,000
Leasehold Improvements and Other	10,000	45,000
	<u>1,110,000</u>	<u>1,130,000</u>

Insurance

Fiduciary	285,000	275,000
Business Insurance Policies	30,000	30,000
Workers Compensation	9,200	8,000
	<u>324,200</u>	<u>313,000</u>

General Office Expenses

Printing, Postage, and Courier	75,000	71,000
Payroll / Employee Timesheets	30,000	20,000
Meeting Expenses and Stenographer	21,000	20,000
Records Storage	20,000	15,000
Office Supplies, Equipment, and Other	134,000	149,000
Temporary Labor	10,000	40,000
	<u>290,000</u>	<u>315,000</u>

Computer & MIS Expenses

Hardware & Software	306,000	271,000
Support and Development	665,000	700,000
MIS Other / ISP & Remote Access	89,000	86,000
	<u>\$ 1,060,000</u>	<u>\$ 1,057,000</u>

Operations (continued)

Due Diligence Travel, Prof. Development & Dues and

Subscriptions

	<u>FY 2019</u>	<u>FY 2018</u>
Due Diligence Travel	\$ 215,000	\$ 215,000
Professional Development	132,000	132,000
Professional Dues and Subscriptions	105,000	105,000
	<u>452,000</u>	<u>452,000</u>

Client Service

Meetings and Conferences	55,000	55,000
Auto Mileage & Parking	24,000	24,000
Printing	15,000	15,000
	<u>94,000</u>	<u>94,000</u>

Total Operations

<u>\$ 15,889,700</u>	<u>\$ 13,141,000</u>
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OPERATING BUDGET NARRATIVE

The Fiscal Year (FY) 2019 Operating Budget is presented in three broad expense categories:

- Investment Management Fees
- Third-Party Service Providers
- Operations

Investment Management Fees:

PRIM employs professional investment managers and gives them discretion, consistent with specified objectives and guidelines, to manage the PRIT Fund's assets. Investment management fees are the fees paid to these investment managers for their services. Each investment manager operates under a contract (generally an investment management agreement or a partnership agreement) that delineates its responsibilities and appropriate performance expectations. Budget projections for investment management fees are based on the following factors and year-to-year budget fluctuations reflect changes to one or more of these factors:

- The PRIT Fund asset allocation
- Assets under management (AUM)
- Contractual fee schedules
- Capital commitments

No performance fees, incentive fees, or carried interest are included in this budget due to the difficulty in estimating these fees in advance.

Third Party Service Providers:

PRIM employs third-party service providers to support PRIM staff, Committees, and the Board to manage the PRIT Fund. Budget projections for third-party service providers are generally estimated based upon current service contracts and estimated future potential services.

Operations:

Operations expenses are projected based on current expenses and strategic initiatives that are deemed to be both probable and estimable.

Investment Management Fees

Global Equities

Global Equities is comprised of Domestic Equity, International Equity and Emerging Markets Equity. PRIM's target asset allocation for Global Equities is:

Domestic Equity:	17.5%
International Equities:	15.5%
Emerging Markets Equities:	<u>6.0%</u>
Global Equities:	39.0%

Domestic Equity

The total Domestic Equity fee budget of \$15.5 million, increases \$5.3 million, or 51.6%, in FY 2019 due primarily to an increase in AUM and an anticipated new allocation to U.S. Micro-Cap Equities.

Manager	Mandate	Active/ Passive	Fee Type
SSgA	Custom S&P 500 Index	Passive	Net Asset Value (NAV)
SSgA	Custom Russell 2500 Index	Passive	NAV
Frontier	Custom Russell 2000 Value	Active	NAV
Huber	Custom Russell 2000 Value	Active	NAV
Riverbridge	Custom Russell 2500 Growth	Active	NAV
Summit Creek	Custom Russell 2000 Growth	Active	NAV
U S Micro Cap Managers (new)	Custom Russell Microcap	Active	NAV

International Equity

The total International Equity fee budget of \$27.1 million, increases by \$3.1 million, or 12.9%, in FY 2019 due to an increase in AUM.

Manager	Mandate	Active/ Passive	Fee Type
SSgA	Custom World-Ex US Index	Passive	NAV
Marathon	Custom MSCI EAFE	Active	NAV
Baillie Gifford	Custom MSCI EAFE	Active	NAV
Mondrian	Custom MSCI EAFE	Active	NAV
The FIS Group	Custom MSCI EAFE – EM	Active	NAV
Acadian	Custom MSCI EAFE – SC	Active	NAV
AQR	Custom MSCI EAFE – SC	Active	NAV
LMCG	Custom MSCI EAFE – SC	Active	NAV
Strategic Global Advisors	Custom MSCI EAFE – SC	Active	NAV
TimesSquare	Custom MSCI EAFE – SC	Active	NAV

Emerging Markets Equity

The total Emerging Markets Equity fee budget of \$30.5 million, increases \$11 million, or 55.9%, in FY 2019 due to an increase in AUM and moving to 100% active management from 75% active, 25% passive.

Manager	Mandate	Active/ Passive	Fee Type
SSgA	Custom MSCI EM IMI Index	Passive	NAV
Acadian	EM Small Cap	Active	NAV
Wasatch	EM Small Cap	Active	NAV
Acadian	Frontier	Active	NAV
AQR	Emerging Markets	Active	Performance
Baillie Gifford	Emerging Markets	Active	NAV
City of London	Frontier	Active	NAV
Driehaus	Emerging Markets	Active	NAV
Harding Loevner	Emerging Markets	Active	NAV
Pzena	Emerging Markets	Active	NAV
T. Rowe Price	Emerging Markets	Active	NAV

Core Fixed Income

The total Core Fixed Income fee budget of \$6.1 million, increases \$.2 million, or 3.6%, in FY 2019 due to an increase in AUM.

Manager	Mandate	Active/ Passive	Fee Type
BlackRock	BA Index	Passive	NAV
BlackRock	TIPS Index	Passive	NAV
BlackRock	ILB	Active	NAV
BlackRock	STRIPS Index	Passive	NAV
PIMCO	Core FI	Active	Funded and Performance
Loomis Sayles	Core FI	Active	NAV
Community Capital	Core FI - ETI	Active	NAV
AFL-CIO	Core FI - ETI	Active	Commingled Fund – NAV
Access Capital	Core FI - ETI	Active	NAV
Progress	Core FI – Emerging Managers	Active	NAV

Value-Added Fixed Income

The total Value-Added Fixed Income fee budget of \$43.3 million, decreases by \$1.8 million, or (4.0%), in FY 2019, due primarily to AUM changes and timing of funding new strategies. Partnership level management fees for Distressed Debt range from 1.0% to 2.5% of capital commitments.

Manager	Mandate	Active/ Passive	Fee Type
Fidelity	HY Bonds	Active	NAV
Loomis Sayles	HY Bonds	Active	NAV
Shenkman	HY Bonds	Active	NAV
Eaton Vance	Bank Loans	Active	Commingled Fund – NAV
Voya	Bank Loans	Active	Commingled Fund – NAV
PIMCO	EM Debt Hard Currency	Active	NAV
Ashmore	EM Debt Hard Currency	Active	Commingled Fund – NAV
Investec	EM Debt Local Currency	Active	NAV
Pictet	EM Debt Local Currency	Active	NAV
Stone Harbor	EM Debt Local Currency	Active	NAV
Various Managers	Distressed Debt	Active	Commingled Funds – Committed Capital
Various Managers	Other Credit Strategies	Active	NAV

Real Estate

Real Estate Investment Trusts (REITs)

The total REITs fee budget of \$6.7 million, increases by \$.7 million, or 12.6%, in FY 2019, due to an increase in AUM.

Manager	Mandate	Active/ Passive	Fee Type
CenterSquare	Global REITs	Active	NAV
Brookfield	Global REITs	Active	NAV
Presima	Global REITs	Active	NAV

Core Strategy

The total Core Strategy fee budget of \$22.8 million, increases by \$2.7 million, or 13.5%, in FY 2019 due to a potential New Core Manager.

Manager	Mandate	Active/ Passive	Fee Type
AEW	Core Real Estate	Active	Funded Amount
INVESCO	Core Real Estate	Active	Funded Amount
JP Morgan	Core Real Estate	Active	Funded Amount
LaSalle	Core Real Estate	Active	Funded Amount
Potential New Core Manager	Core Real Estate	Active	Funded Amount

Non – Core Strategy

The total Non - Core Strategy fee budget of \$4.1 million, decreases by \$.1 million, or (2.7%), in FY 2019 due primarily to the aging of existing Non-Core investments.

Manager	Mandate	Active/ Passive	Fee Type
Various Managers	Non-Core	Active	Generally - Committed Capital
New Boston Fund	Non-Core - ETI	Active	Cost of Remaining Investments

Timberland

The total Timberland fee budget of \$6.8 million, increases by \$1.3 million, or 24%, in FY 2019 due to an increase in NAV and a potential new investment.

Manager	Mandate	Active/ Passive	Fee Type
Forest Investment Advisors	Timberland	Active	NAV
Campbell Global	Timberland	Active	NAV

Private Equity

The total Private Equity fee budget of \$114.6 million, increases by \$4.6 million, or 4.2%, in FY 2019. Private Equity management fees are typically 1.0% to 2.5% of committed capital during the active investment period, and become a percentage of cost of remaining investments later in the life of the partnership.

Manager	Mandate	Active/ Passive	Fee Type
Various Managers	Private Equity	Active	Generally Committed Capital

Portfolio Completion Strategies (PCS)

The total Portfolio Completion Strategies fee budget of \$96.7 million, increases by \$18.6 million, or 23.8%, in FY 2019, due primarily to additional investments in Real Assets and Equity Hedge Strategies. PCS and Hedge Fund management fees are typically 1.0% to 2.0% of the NAV of the partnership.

Manager	Mandate	Active/ Passive	Fee Type
Various Managers	PCS and Hedge Funds	Active	Generally NAV

Overlay, Foreign Currency and Other

The total Overlay, Foreign Currency and Other fee budget of \$3.1 million, decreases by \$.6 million, or (16.5%), in FY 2019 due to the decreasing AUM in liquidating portfolios.

Manager	Mandate	Active/ Passive	Fee Type
Parametric	Overlay	Active	NAV
Russell	Foreign Currency Trading	Active	NAV
Various Managers	Private Natural Resources Wind-Down	Active	Cost of Remaining Investments

Third-Party Service Provider Fees

The FY 2019 budget for Third-Party Service Provider Fees (including Custody and Advisors as well as Audit & Tax, Legal, Governance and Risk Measurement & Investment Analytics) of \$14.9 million increases by \$1.4 million, or 10.6%. The increase is driven primarily by the continued expansion of PRIM’s managed account initiative. Costs in this category are the result of competitively bid contracts.

Custody

BNY Mellon currently provides the PRIT Fund with global custody, accounting and performance measurement services. BNY Mellon provides custody for PRIT assets, records all investment transactions for the PRIT Fund, and provides recordkeeping for all participant activity for member retirement systems, including participant performance analysis.

Advisory Services – General

PRIM employs several professional advisors to provide comprehensive advisory services to staff and the Board including recommendations on asset allocation, investment analysis, manager selection and oversight, communications and compensation policies.

Advisor Name	Advisor Role
NEPC, LLC	Asset Allocation
Callan Associates	Public Markets
MSCI	Restricted Securities Lists
O’Neill and Associates	Communications
FX Transparency	Foreign Currency Cost Analysis
McLagan	Compensation

Advisory Services - Real Estate & Timberlands

The FY 2019 budget reflects the advisory fees for Townsend and International Woodland Company, financial reporting costs associated with the real estate leverage program, expenses related to potential direct investments and other.

Advisory Services - Private Equity

Hamilton Lane provides advisory, legal services, monthly accounting, and detailed performance reporting for the PRIT Fund's Private Equity program.

Advisory Services – Portfolio Completion Strategies

The FY 2019 budget reflects the contractual fees for Aberdeen, New Alpha, HedgeMark and Innocap. Aberdeen and New Alpha are PRIM’s PCS advisors. HedgeMark and Innocap are PRIM’s managed account platform service providers.

Audit & Tax

KPMG provides annual financial statement audits for the PRIT Fund and PRIM. KPMG also performs an annual examination of the internal controls surrounding PRIM's procurement of investment managers and other third-party service providers and reviews the PRIT Fund's benchmark and performance calculations in accordance with the guidance contained in the AICPA Statement on Standards for Attestation Engagements.

KPMG also provides audit services for PRIM's Real Estate, Timberland, and certain PCS investments. The audit fees for this work are charged to the underlying investments and are not included in the PRIM budget.

Deloitte provides PRIM with tax advisory services. Real Estate and Timberland property level tax return preparation fees and tax advisory fees are charged to the underlying properties and, as such, are not a part of the PRIM budget. However, the general tax advisory work is paid directly by PRIM.

Legal

PRIM retains outside counsel as necessary to provide legal services to PRIM. Outside legal expenditures can be difficult to predict and have historically fluctuated significantly based on the nature of activities of the PRIT Fund and PRIM.

Governance

Institutional Shareholder Services (ISS) provides a comprehensive analysis of proxy issues and vote recommendations for the PRIT Fund's domestic and international securities in accordance with PRIM's custom proxy guidelines. Cortex Applied Research Inc., is engaged to perform charter review and to administer the Board self-evaluation process. The governance budget also includes annual membership fees associated with participation in the Council of Institutional Investors and anticipated costs for hosting PRIM Board Education sessions.

Risk Measurement and Investment Analytics

PRIM utilizes MSCI's BarraOne, a single platform multi-asset class investment risk measurement tool. Other investment analytical tools include FactSet, eVestment, Bloomberg, and others.

Operations

The FY 2019 Operations budget of \$15.9 million increases \$2.7 million or, 20.9%, due primarily to the impact of McLagan’s updated compensation data as well as an increase in actual and projected staff size.

Compensation & Employee Benefits

The FY 2019 Compensation budget includes allocations for additional positions and potential compensation increases for existing employees based upon the updated PRIM salary bands.

Per PRIM’s Compensation Philosophy, to ensure PRIM remains competitive with market trends, a comprehensive compensation level analysis was conducted in 2018 by PRIM’s compensation consultant, McLagan. To make incremental progress within these salary bands we have accordingly included allocations in the FY 2019 budget for potential base salary increases and for potential promotions (a 5.0% year-over-year increase). The budget for employee benefits consists primarily of dental, vision, and disability costs for employees as well as a contingency to cover potential unemployment claims since PRIM does not participate in the state's unemployment insurance pool. The budget also includes estimated Medicare taxes for all employees.

FY 2019 Budget Compensation	\$ 12,559,500
FY 2018 Budget Compensation	\$ 9,780,000
Year-over-year change	\$ 2,779,500
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New positions and benefits increase	\$ 531,900
Potential compensation increases	\$ 2,247,600
Year-over-year change	\$ 2,779,500

Occupancy

The occupancy budget includes expenses associated with office space, including rent, maintenance charges, and utilities.

PRIM's office building at 84 State Street is owned by PRIT Core Realty Holdings LLC and is managed by INVESCO. PRIM occupies the entire second and third floors of the building (21,500 rentable square feet).

Insurance

The budget includes insurance premium costs for various business and liability policies. PRIM's current insurance policies are summarized in the following table:

Policy Type	Coverage	Deductible
Fiduciary Liability	\$15,000,000	\$ 250,000
Commercial Crime	\$10,000,000	\$ 100,000
Employment Practices Liability	\$ 1,000,000	\$ 50,000
Workers Compensation	\$ 1,000,000	N/A
Commercial General Liability	\$ 1,000,000	N/A
Commercial Property	\$ 617,100	\$ 250
Umbrella Liability	\$ 4,000,000	\$ 10,000
Hired Auto	\$ 1,000,000	N/A

General Office Expenses

This budget category includes expenses relating to office operations including postage, office supplies, copying, printing, telephone expenses, temporary labor and office infrastructure.

Computer and MIS Expenses

The budget for Computer & MIS Expenses stays relatively flat from the prior year. This category also includes offsite data backup, licensing, hardware, and equipment for current and new staff. The Support & Development category includes maintenance, support, and enhancement of PRIM's core IT infrastructure and applications at both PRIM's primary and backup sites.

Due Diligence Travel, Professional Development & Dues and Subscriptions

This budget category represents costs associated with due diligence travel, ongoing professional education of PRIM Board members and staff, including related travel expenses and dues & subscriptions, which includes membership dues in professional associations and subscription costs for professional journals, investment industry publications, and newspaper subscriptions. The budget includes tuition reimbursement charges (e.g., for approved CFA and higher education courses), required continuing education costs for maintaining professional licenses (e.g., CPA license), and attendance at professional conferences and seminars. PRIM is committed to supporting its Board members and staff in their pursuit of professional development.

Client Service

Currently, 95 of the Commonwealth's 104 retirement systems invest in the PRIT Fund. The client service budget allows for PRIM-sponsored client conferences and on-site client meetings. This budget includes the cost of traveling to client meetings, conferences, and related activities. Additionally, the costs associated with printing and binding the PRIT Fund's Comprehensive Annual Financial Report is included in this budget.

Appendix I.

Key Assumptions

Estimated Assets Under Management and Asset Allocation in FY 2019

Many of the budgeted expenses for FY 2019 are based upon the estimated average assets under management and the estimated average actual asset allocation.

The estimated average assets under management for FY 2019 is \$74 billion. To estimate PRIM's FY 2019 average assets under management, the beginning AUM of FY 2019 (July 1, 2018) was estimated to equal the PRIT Fund assets under management as of February 28, 2018, the most current and available information when creating this budget. The ending AUM of FY19 (June 30, 2019) was estimated to increase by NEPC's expected 5-7 year return forecast of 6.6%. The estimated average AUM of FY 2019 is the average of the estimated beginning and ending AUM, which is approximately \$74 billion. Please note that future investment performance is not predictable and actual performance will vary.

The estimated asset allocation in FY 2019 is based on the current actual asset allocation of the PRIT Fund and projected future allocation changes. Projected allocation changes include a decrease in Global Equity and an increase in Private Equity of 1% each.

Performance, Incentive, or Carried Interest Fees

No investment performance, incentive, or carried interest fees are budgeted in FY 2019. These fees vary dramatically from year-to-year and are not predictable.