wef Member Association

Water Environment Federation
the water quality people

PARTNERING FOR MUTUAL SUCCESS

Re$erve$
Preparing (Educating) your Board

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Highlights

- What are Reserves? Why are they important?
- How do you calculate Reserves?
- How much should (can) you have in Reserves?
- Drafting a Reserve Policy
- Investing Reserves

What are Reserves and why are they important?

An **Operating Reserve** is an ***unrestricted*** fund balance set aside to stabilize a nonprofit's finances by providing a **"rainy day savings account"** for unexpected cash flow shortages, expense or losses.

These might be caused by delayed payments, unexpected building repairs, or economic conditions.

What Reserves are not!

Operating Reserves should **not** be used to make up for operating income shortfalls, unless the organization has a plan to replace the income or reduce expenses in the near-term future.

In short, **Operating Reserves** should be used to solve *timing* problems, not *deficit* problems.

Operating Reserves vs Restricted Reserves – account for them separately!

Restricted Reserves consist of funds donated to the organization for **specific purposes** such as scholarships, awards, educational efforts, government grants, etc.

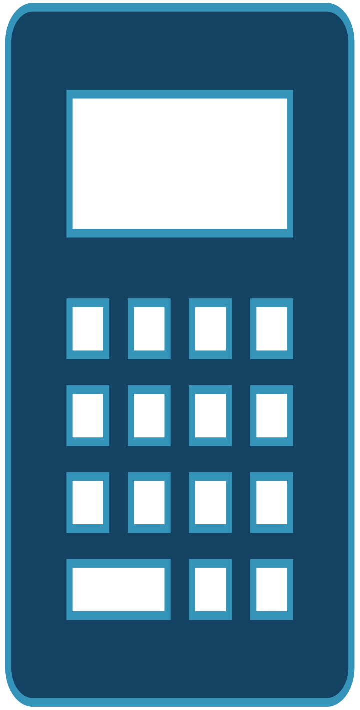
These funds should always be accounted for separately and not used in Operating Reserve calculations, especially if the funds are provided to the nonprofit in advance of the work/award/gift being completed or disbursed.

Reserves – surpluses and liquidity – important distinctions

Operating Reserves are the accumulation of unrestricted surpluses that are ***liquid*** (as opposed to invested in fixed assets) and thus available for use at the discretion of an organization's board.

$$\text{Reserves} = \frac{\text{Total Net Assets}}{\text{Total Oper Expense}}$$

Calculating Reserves

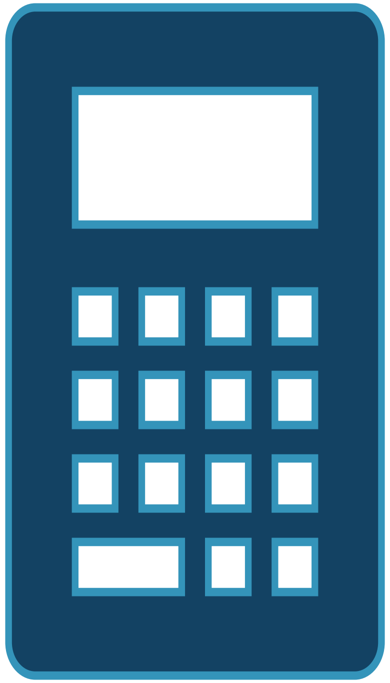


WEF Statement of Financial Position

As of August 31,

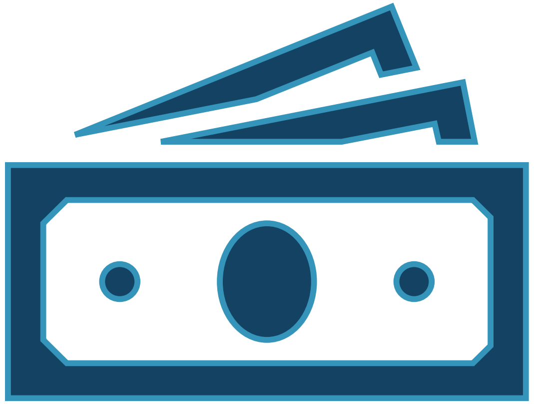
	FY 2018	FY 2014	
ASSETS			
Liquid Assets			
Cash and cash equivalents	$ 10,611,110	$ 5,299,009	
Investments	16,585,544	9,651,642	
Total Liquid Assets	**27,196,654**	**14,950,651**	**A**
Accounts receivable	841,040	1,236,385	
Prepaid expenses and other assets	6,508,413	8,961,859	
TOTAL ASSETS	**$ 34,546,107**	**$ 25,148,895**	
LIABILITIES AND NET ASSETS			
Liabilities			
Accounts payable & accrued expenses	$ 1,440,649	$ 1,619,296	
Deferred revenue	17,286,409	15,038,601	
Capital leases payable	238,519	19,372	
Total liabilities	**18,965,577**	**16,677,269**	
Net Assets	**15,580,530**	**8,471,626**	**B**
TOTAL LIABILITIES AND NET ASSETS	**$ 34,546,107**	**$ 25,148,895**	
TOTAL OPERATING REVENUE	**$ 28,071,476**	**$ 22,541,267**	**C**
TOTAL OPERATING EXPENSES	**$ 26,487,695**	**$ 21,339,114**	**D**
RESERVE RATIO (NET ASSETS) = B/D	**58.8%**	**39.7%**	
RESERVE RATIO (LIQUIDITY) = A/D	**102.7%**	**70.1%**	
Readily Available Liquid Assets (RALA) = A/C	**96.9%**	**66.3%**	

Reserve/Liquidity Considerations



- ❑ Are your revenues and expenses cyclical (month-to-month/year-to-year) or recurring?
- ❑ Do you have large capital expenditures planned in the future – replacement of an AMS system, purchasing or renovating a building?

How much should you have in Reserves using Industry Standards?



- ❑A common Reserve goal is a minimum of 3 months' total operating expenses vs. industry recommended 6 months'.
- ❑At the high end, Reserves generally should not exceed the amount of two years' operating expense budget (no actual limit by IRS, should not be excessive).
- ❑At the low end, Reserves should be enough to cover **at least** one full payroll.

How much should you have in Reserves, based on your MA's needs?

- ❑Each nonprofit should set its own Reserve goal based on its cash flow and expenses.
- ❑Organizations that have contracts or fees with regular and reliable receipts don't need as much in cash reserves as those that rely on periodic grants, fundraising events or campaigns, or seasonal activities.

Five Essentials for Reserve Policies

The intent of the Operating Reserve policy is to describe and document the purpose, goals, and mechanics for maintaining and using operating reserve funds. In order to accomplish this, the operating reserve policy needs to address five areas:

1. Purpose of building and maintaining reserves
2. Definitions of the types of reserves, intended use, and calculation of target amounts
3. Assignment of authority for making use of each type of reserve fund, which may include delegation of some authority to staff leaders
4. Responsibilities for reporting reserve fund amounts and use of reserve funds
5. Any specific policies, if needed, about investment of reserve funds

WEF's Reserve Policy – Updated April 2018

Recognizing that WEF's liquid reserves must provide funds to:

- Pay operating expenses including WEFTEC and membership obligations,
- Fund capital improvement purchases including building upkeep, computer technology enhancements, furniture and fixture replacements, etc.,
- Fund new business opportunities,
- Maintain operations in the face of unanticipated, uncontrollable influences in the marketplace (like 9/11) and generally provide for a "rainy day fund", and
- Fund new programs as they develop.

Further recognizing that WEF desires to:

- Keep member dues reasonable in relation to the benefits provided,
- Maintain a strong Balance Sheet in the eyes of the bank and other financial institutions.
- WEF will maintain Readily Available Liquid Assets of 45% of budgeted income as of WEF's fiscal yearend and further recognizing that RALA fluctuate monthly, however that Readily Available Liquid Assets shall not fall below 20% of budgeted income at any time during the fiscal year. Readily available liquid assets are defined as cash, long-term investments and short-term investments. WEF strives to increase its net asset ratio (total assets divided by total operating expenses) by 2% each year to attain industry benchmark of 50% by year 2024. **(REV 04/18)**

Achieving targeted Reserves through WEF's Financial Policies

BUDGET AND NET ASSETS

It is the policy of the Federation to have net assets equal to 50% of the annual operating expense budget (excluding grants) by 2024.

In order to achieve this policy, the Federation will budget an annual net income line item of 2% of the total annual operating expense beginning with the development of the 2015 budget.

The progress towards the 50% net assets goal shall be reviewed annually after the annual audit report is issued. **(REV 04/14)**

Are we there, yet? Maybe?!

Initial WEF goal of a 50% reserve was met by the end of FY17 and increased in FY18

However, this goal is a moving target as WEF's revenue and expenses increase annually and, correspondingly, the reserves need to grow as well

You've hit the goal, now what? Investing Reserve Funds – considerations

- **How much is available to invest?** Be sure that operating day-to-day funds (working capital) and restricted funds are separated from the reserve funds.
- **How likely will the funds be needed?** If funds are needed during a downturn in economic climate, the markets will likely also be down and your equity investments as well.
- **Risk versus return – what is your board's risk tolerance?** Generally the lower the risk (T-bills, insured CDs), the lower the return.
- **Investment cost** – whatever investment used, remember it is always easier to retain income than generate it. Many investment vehicles have substantial fees for investments.

Five Essentials for Investment Policies

The intent of the Investment policy is to describe and document the purpose, goals, and mechanics for maintaining and using investments. In order to accomplish this, the investment policy needs to address five areas:

1. Purpose of building and maintaining investments
2. Definitions of the types of investments, investment diversification, and calculation of target amounts
3. Assignment of authority for investment fund, which may include delegation of some authority to staff leaders
4. Hiring and performance evaluation of investment advisors and managers, if used
5. Responsibilities for reporting investment fund amounts and use of investment funds

WEF’s policy incorporates these Investing Guidelines

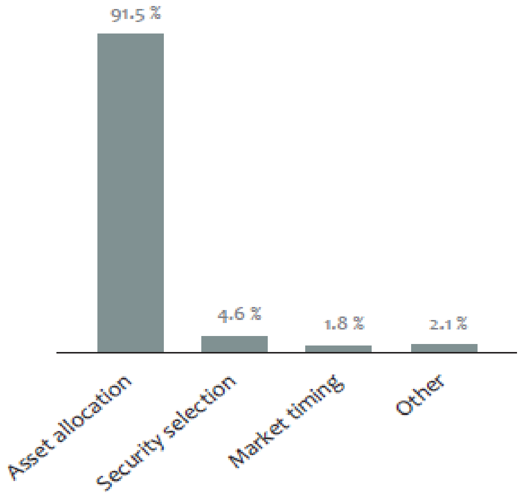
1. Importance of asset investment diversification
2. Discipline - invest for the long-term; review and rebalance as needed (quarterly at a minimum)
3. Balance risk and return
4. Passive rather than Active Management (*asset class investing*)
5. Low Fees improve overall returns

Importance of Investment Asset Diversification

Importance of asset allocation

Determinants of portfolio performance

Asset allocation is the most admired—but often least practiced—investment discipline and accounts for 91.5 % of variation in portfolio returns.



"Investment returns stem from decisions regarding three tools of portfolio management: asset allocation, market timing, and security selection, with investor behavior determining the relative importance of each."

— *David Swensen, CIO of Yale University*

Source: *Financial Analyst Journal*'s, "Determinants of Portfolio Performance," by Gary Brinson, Brian Singer, and Gilbert Beebower (1991)

Long-term perspective for Investments

2018 Market Dynamics

Nearly all global capital markets experienced a negative return in calendar year 2018

First negative return for US equities in ten years

The U.S. technology sector (our largest) was down .3%.

Non-U.S. investments fared worse with large developed markets down 13.8%

Recommendation: Stay the course and systematically rebalance according your investment policy.

Calendar Year Returns

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	Analysis Period
MSCI World Index	-8.20%	23.07%	8.15%	-0.32%	5.50%	27.36%	16.54%	-5.02%	12.34%	30.79%	-40.33%	4.29%
Russell 3000	-5.24%	21.13%	12.74%	0.48%	12.56%	33.55%	16.42%	1.03%	16.93%	28.34%	-37.31%	7.26%
MSCI World Ex. US Index	-13.64%	24.81%	3.29%	-2.60%	-3.88%	21.57%	17.02%	-11.78%	9.43%	34.39%	-43.23%	0.80%
Dow Jones Emerging Markets	-12.74%	35.37%	10.71%	-14.35%	-0.27%	-1.14%	17.10%	-18.84%	20.92%	76.58%	-54.49%	0.18%
DFA Global Real Estate Securiti	-4.15%	9.20%	6.56%	0.69%	22.74%	1.77%	23.17%	1.81%	23.79%	32.67%	N/A	N/A
Bloomberg Commodity Index	-11.25%	1.70%	11.77%	-24.66%	-17.01%	-9.52%	-1.06%	-13.32%	16.83%	18.91%	-35.65%	-7.24%

Balance risk and return – inflation can overtake returns

Inflation risk

Definition

Inflation risk is the loss of purchasing power caused by long-term, persistent inflation. It is minimized by investing in asset classes that have historically outperformed inflation.

"Longer-term investors need to be owners of financial assets, not creditors."

— *David Swensen, CIO of Yale University*

Example: United States postal rates

10 yr spending success rate in U.S. markets, 1900 – 2011

Spending rate	Portfolio composition, *equity : fixed income*										
	100:0	90:10	80:20	70:30	60:40	50:50	40:60	30:70	20:80	90:10	0:100
2 %	77	79	80	79	77	72	68	66	61	50	41
3 %	73	71	71	69	67	65	61	56	45	40	40
4 %	66	66	65	63	60	55	50	43	36	33	30
5 %	59	57	56	52	52	48	43	35	31	28	24
6 %	50	50	48	47	42	37	33	25	25	21	16
7 %	46	46	43	36	33	28	19	18	15	12	11
8 %	39	37	31	28	24	18	15	12	11	6	2
9 %	30	26	23	20	16	9	5	3	2	1	1

This historical market data represents the percent-chance an investor can meet spending policy and maintain an asset base over time. The highlighted portions represent upper and lower terciles and the remaining middle sextiles.

Source: Dimson, Marsh & Stauton, Barclays, Bank of America, and Russell *via* NACUBO

Passive vs. Active Investment Management

Outperformance of other investors

Intellectually beat the market

Only a small number of investors (*e.g.*, Warren Buffett, John Templeton, Dean LeBaron) have pursued the intellectually difficult way to beat the market. To do so, one must have a clearer comprehension of the true nature of investing and see the future more clearly than one's peers. Buffett and others are often initially viewed as being ill-advised until time reveals their decisions were correct. It is incredibly difficult to intellectually beat the market, and very few have the talent or skill to consistently accomplish the feat.

Outwork the competition

Many investors are involved in the physically difficult way to beat the market. They attempt to work harder than their peers in hopes they may gain new information or insight other investors have missed or overlooked. These investors spend more hours researching, reading, and analyzing all available information. It is difficult to succeed with this method because many people do exactly the same thing. Therefore, it is unlikely that one investor will outperform the market simply by outworking others.

Develop a long-term policy

Investors need to develop a realistic, long-term investment policy that truly suits their needs and simply stay with it. They should ignore the latest trends, surges, or stock picks even though emotions may pressure a change. Over the years, this approach assures successful investment returns. As Charles Ellis summarizes, "It requires no great genius and no great brawn, but it works."

"I am no longer an advocate of elaborate techniques of security analysis in order to find superior value opportunities. This was a rewarding activity, say, forty years ago, when *Graham & Dodd* was first published, but the situation has changed a great deal since then … I doubt whether, in most cases, such extensive efforts will generate sufficiently superior selections to justify their cost … I'm on the side of the *efficient market* school of thought…."

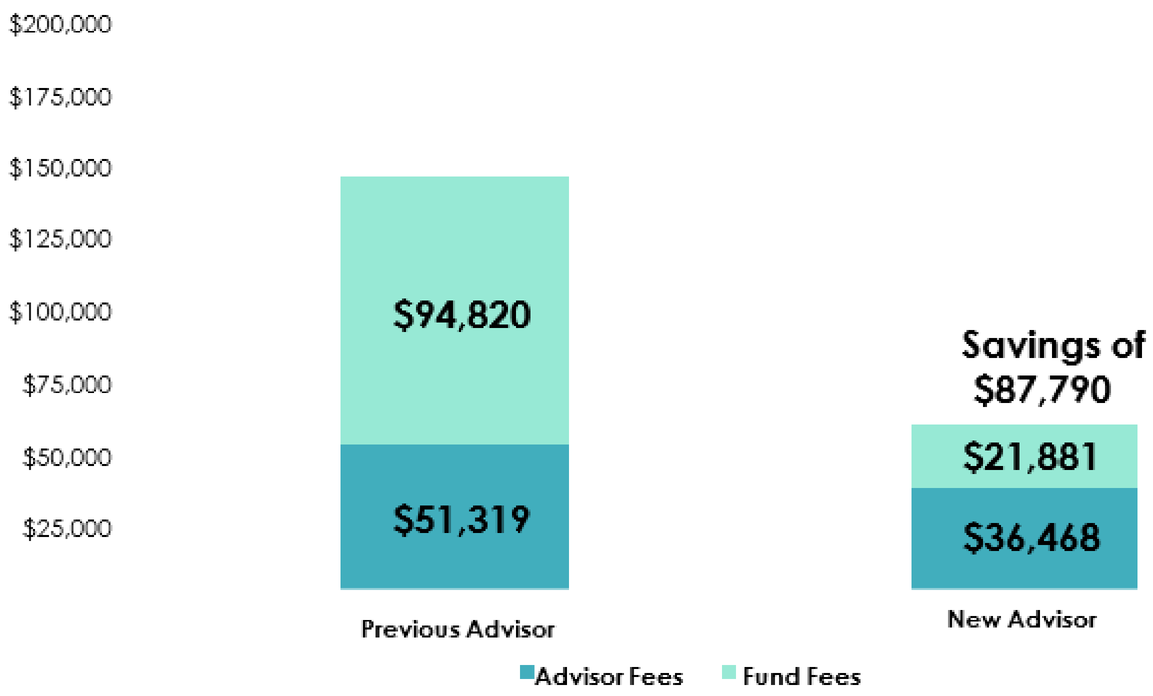
— *Benjamin Graham, Interview with* Financial Analysts Journal (1976)

Source: *The Investor's Anthology: Original Ideas from the Industry's Great Minds* by Charles Ellis (2001)

Low Fees – Invisible savings

Comparison of Investment Fee Expenses Based on $14.6 Million of Investments

as of December 31, 2017



Low Fees – Invisible savings

The best & the brightest

Quotations from respected investors

"Most investors—both institutional and individual—will find that the best way to own common stock is through an index that charges minimal fees."

— *Warren Buffett, Founder of Berkshire Hathaway*

"Most investors would be better-off in an index fund."

— *Peter Lynch, Former Manager of Fidelity Magellan Fund*

"This business is a giant scam. Roughly 85 % of investment managers don't add value."

— *Jack Meyer, Former Head of Harvard Management Corporation*

"All the time and effort that people devote to picking the fund, the hot hand, the great manager, have in most cases led to no advantage."

— *Peter Lynch, Former portfolio manager of the Magellan Fund*

"Evidence points overwhelmingly to the conclusion that active management of assets fails to produce satisfactory results for investors—investors lose; mutual fund managers win."

— *David Swensen, CIO of Yale University*

"I am no longer an advocate of elaborate techniques of security analysis in order to find superior value opportunities. This was a rewarding activity, say, forty years ago, when *Graham & Dodd* was first published, but the situation has changed today. I doubt whether such extensive efforts will generate sufficiently superior selections to justify their cost. I am on the side of the efficient market school of thought."

— *Benjamin Graham, Interview with Financial Analysis Journal*

WEF's Financial Policies: Investments

- It is the policy of the Federation that its overall investment objective be long-term reasonable growth of investment capital and income with emphasis on capital preservation and sufficient liquidity to meet all operation expenses.
- The objective will be achieved by adhering to the guidelines as outlined and approved in the **WEF INVESTMENT POLICY STATEMENT (REV 04/18)**

WEF's Investment Policy Outline

1. General
2. Principles
3. Objectives
4. Diversification of Investments/Assets Allocation
5. Evaluation of Investment Managers
6. Independent Investment Advisors
7. Performance Measurement
8. Conflict of Interest
9. Division of Responsibilities/Reporting Procedures

WEF’s Investment Policy Diversification Guidelines

	Ranges	Benchmarks
<u>I. Equity</u>	**60% - 70%**	
Global Equities	45% - 49%	MSCI World Index
Global REITs	5% - 7%	Wilshire Global REIT Index
Emerging Market Equities	5% - 7%	MSCI Emerging Market Index
US Microcap	5%-7%	Russell 2000 Index
<u>II. Fixed Income</u>	**40%-30%**	
U.S. Short-Term Debt	20% - 25%	Barclays Short-Term. Bond Index
Short-Term Treasury Inflation-Protected Securities	5% - 7.5%	Short-Term Treasury Inflation Protected Securities Index
Global Debt	5% - 7.5%	Barclays Global Bond Index

WEF's Information to share will be posted on the MA Resource Page and emailed to attendees

- WEF Financial Policies – currently being updated, will post after April 2019 Board meeting, includes:
  - ➢Reserve Guidelines
  - ➢Investment Guidelines
- WEF Investment Policy – updated February 2019
- DHK Financial Advisors Investment Philosophy

Questions/Comments?

Thank you!