Spending Rules Best Practices

Steven Kapor

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Takeaways

- Framework to make decisions
- Information when engaging board
- Best Practices

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Founder of Fundriver

13 years working in endowment administration

Prior experience investment consultant to non-profits

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Spending Rules

Unitization Methods

Preview New Fundriver Spending Module

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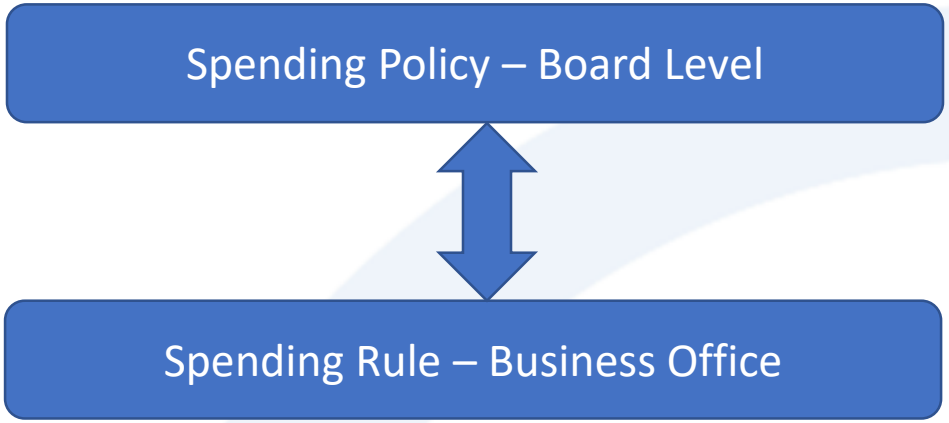
Spending Rule vs. Policy



Policy Example:

Spending will be 4.5% of trailing three-year average market value

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Method to calculate the amount of distribution from a fund

How the spending policy is applied

Budget Impact

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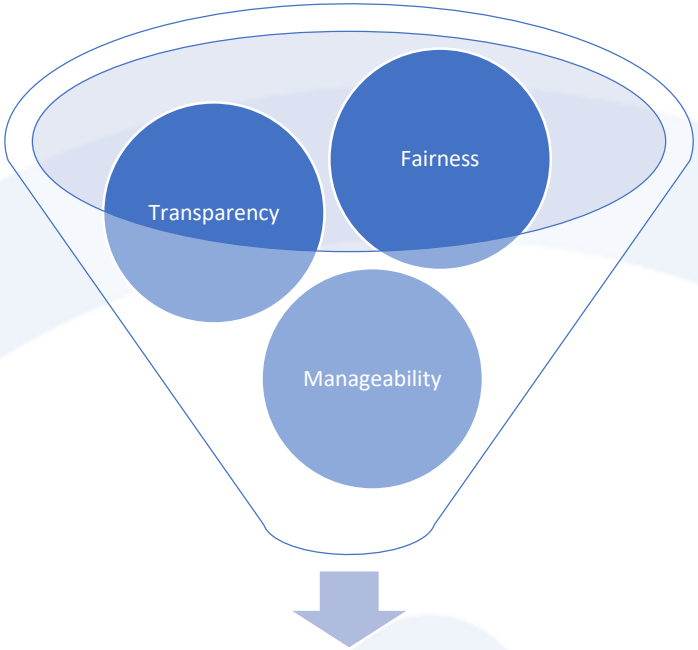
Spending Policy



Spending Rule

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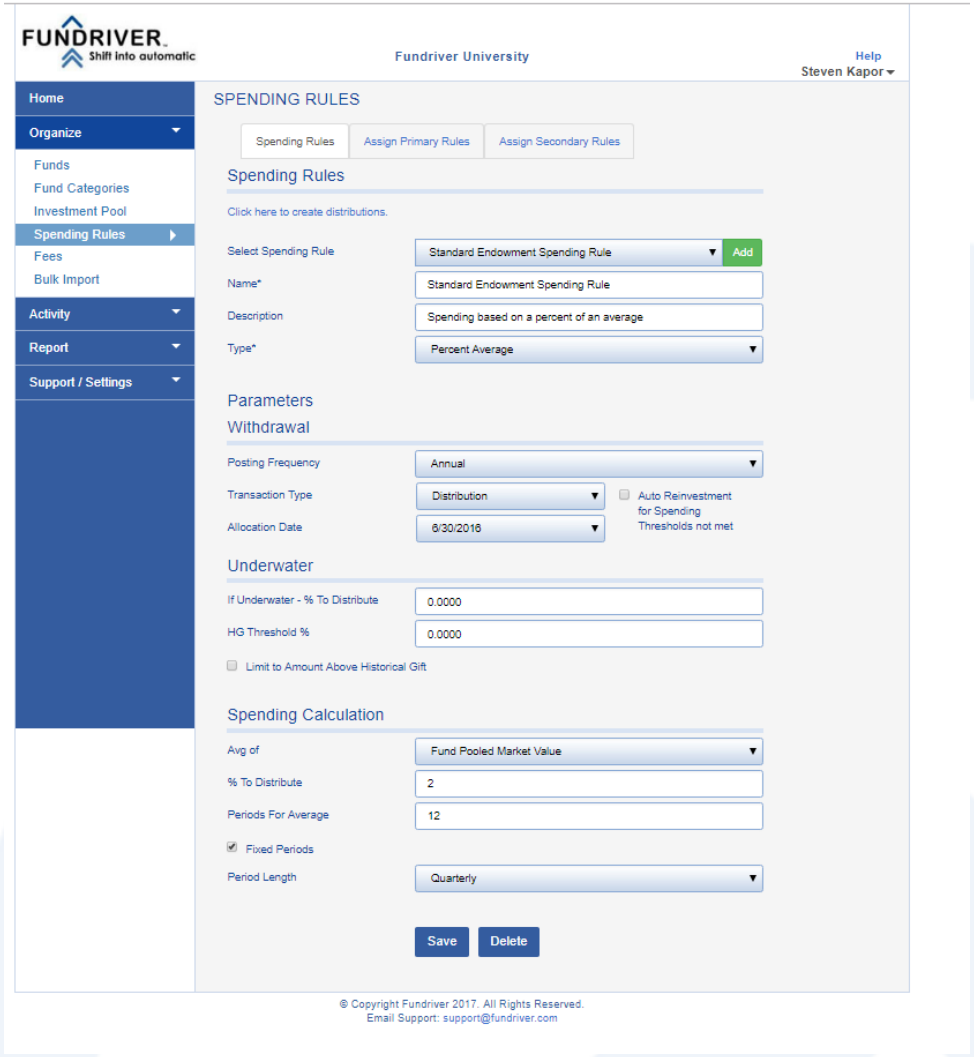

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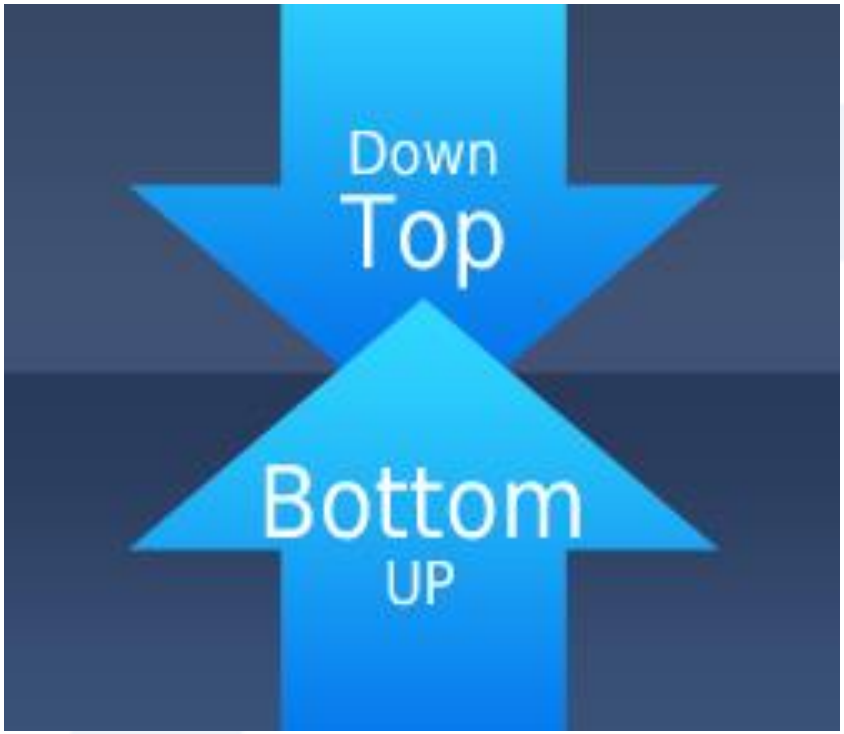

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- Average of the **pool** market value
- Average unit price
- Distribution per share

- Average of the **fund** market value

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Top-Down Example #1
Average of Pool Market Value

	Unit Price:	100		Return	5%			Unit Price:	105.0000
Year 1	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,000	10.0000		300	0	3.0000		1,365	13.0000
Fund B	1,200	12.0000		0	0	0.0000		1,260	12.0000
Fund C	500	5.0000		250	0	2.5000		788	7.5000
						Total ending	**market value:**	**3,413**	32.5000
	Unit Price:	105		Return	-7%			Unit Price:	97.6500
Year 2	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,365	13.0000		0	0	0.0000		1,269	13.0000
Fund B	1,260	12.0000		0	0	0.0000		1,172	12.0000
Fund C	788	7.5000		250	0	2.3810		965	9.8810
Fund D				1,000	0	9.5238		930	9.5238
						Total ending	**market value:**	**4,336**	44.4048
	Unit Price:	97.65		Return	8%			Unit Price:	105.4620
Year 3	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,269	13.0000		200	0	2.0481		1,587	15.0481
Fund B	1,172	12.0000		0	0	0.0000		1,266	12.0000
Fund C	965	9.8810		0	0	0.0000		1,042	9.8810
Fund D	930	9.5238		250	0	2.5602		1,274	12.0840
Fund E				800	0	8.1925		864	8.1925
						Total ending	**market value:**	**6,033**	57.2056

Top-Down Example #1
Average of Pool Market Value

Step 1: Calculate Average

Pool Market Value	
Y1	$3,413
Y2	$4,336
Y3	$6,033
Avg	$4,594

Step 2: Apply Rate

Pool Average	
3-year Avg	$4,594
Rate	4.50%
Total Distribution	$206.72

Step 3: Apply to Fund

Percent of Pool	26%
Fund A Distribution	$54.38

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Top-Down Example #2
Average of Unit Price

	Unit Price:	100		Return	5%			**Ending Unit Price:**	**105.0000**
Year 1	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,000	10.0000		300	0	3.0000		1,365	13.0000
Fund B	1,200	12.0000		0	0	0.0000		1,260	12.0000
Fund C	500	5.0000		250	0	2.5000		788	7.5000
								3,413	32.5000
	Unit Price:	105		Return	-7%			**Ending Unit Price:**	**97.6500**
Year 2	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,365	13.0000		0	0	0.0000		1,269	13.0000
Fund B	1,260	12.0000		0	0	0.0000		1,172	12.0000
Fund C	788	7.5000		250	0	2.3810		965	9.8810
Fund D				1,000	0	9.5238		930	9.5238
								4,336	44.4048
	Unit Price:	97.65		Return	8%			**Ending Unit Price:**	**105.4620**
Year 3	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,269	13.0000		200	0	2.0481		1,587	**15.0481**
Fund B	1,172	12.0000		0	0	0.0000		1,266	12.0000
Fund C	965	9.8810		0	0	0.0000		1,042	9.8810
Fund D	930	9.5238		250	0	2.5602		1,274	12.0840
Fund E				800	0	8.1925		864	8.1925
								6,033	57.2056

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Top-Down Example #2
Average of Unit Price

Step 1: Calculate Average

Unit Values	
Y1	105.000
Y2	97.650
Y3	105.462
Avg	102.704

Step 2: Apply Rate

Avg Unit Price	
3 Year Avg	102.704
Rate	4.50%
Distrib/Unit	4.62168

Step 3: Apply to Fund Level

Fund A Units	15.0481
Times: Distrib/Unit	4.62168
Fund A Distribution	69.55

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Bottom-Up Example
Average of Funds

	Unit Price:	100		Return	5%			Unit Price:	105.0000
Year 1	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,000	10.0000		300	0	3.0000		**1,365**	13.0000
Fund B	1,200	12.0000		0	0	0.0000		1,260	12.0000
Fund C	500	5.0000		250	0	2.5000		788	7.5000
								3,413	32.5000
	Unit Price:	105		Return	-7%			Unit Price:	97.6500
Year 2	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,365	13.0000		0	0	0.0000		**1,269**	13.0000
Fund B	1,260	12.0000		0	0	0.0000		1,172	12.0000
Fund C	788	7.5000		250	0	2.3810		965	9.8810
Fund D				1,000	0	9.5238		930	9.5238
								4,336	44.4048
	Unit Price:	97.65		Return	8%			Unit Price:	105.4620
Year 3	Market Value	Units		Gifts	Withdrawal	Net Units		Market Value	Units
Fund A	1,269	13.0000		200	0	2.0481		**1,587**	15.0481
Fund B	1,172	12.0000		0	0	0.0000		1,266	12.0000
Fund C	965	9.8810		0	0	0.0000		1,042	9.8810
Fund D	930	9.5238		250	0	2.5602		1,274	12.0840
Fund E				800	0	8.1925		864	8.1925
								6,033	57.2056

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Bottom-Up Example
Average of Funds

Step 1

Fund A - Market Value	
Y1	$1,365
Y2	$1,269
Y3	$1,587
Avg	$1,407

Step 2

Average of Fund	
3-Year Avg	1,407
Rate	4.50%
Fund A Distribution	$63.32

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Comparison of Approaches

	Bottom Up: Fund Avg		Top Down #1: Pool Avg	Top Down #2: Avg Unit Value
Fund A	63.32		54.38	69.55
Fund B	55.46		43.36	55.46
Fund C	41.92		35.71	45.67
Fund D	49.60		43.67	55.85
Fund E	38.88		29.61	37.86
Total	**$249.18**		**$206.72**	**$264.39**

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Comparing Approaches

	Top Down #1: Average of Pool	Top Down #2: Average of Unit Price	Bottom-Up: Average of Funds
Simple to calculate	+	+/-	-
Gift seasoning/New Funds	-	-	+
Ability to explain	+/-	+/-	+
Exceptions	-	-	+

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Top-Down vs Bottom-Up

Top-Down

- Spending at same effective rate across all funds
- Exceptions can be more complicated
- Simpler to calculate in total
- Better to support quarterly/monthly distributions

Bottom-Up

- Spending at different effective rates
- Easier to accommodate exceptions
- More complicated to calculate total spend

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What Do Other Organizations Do???

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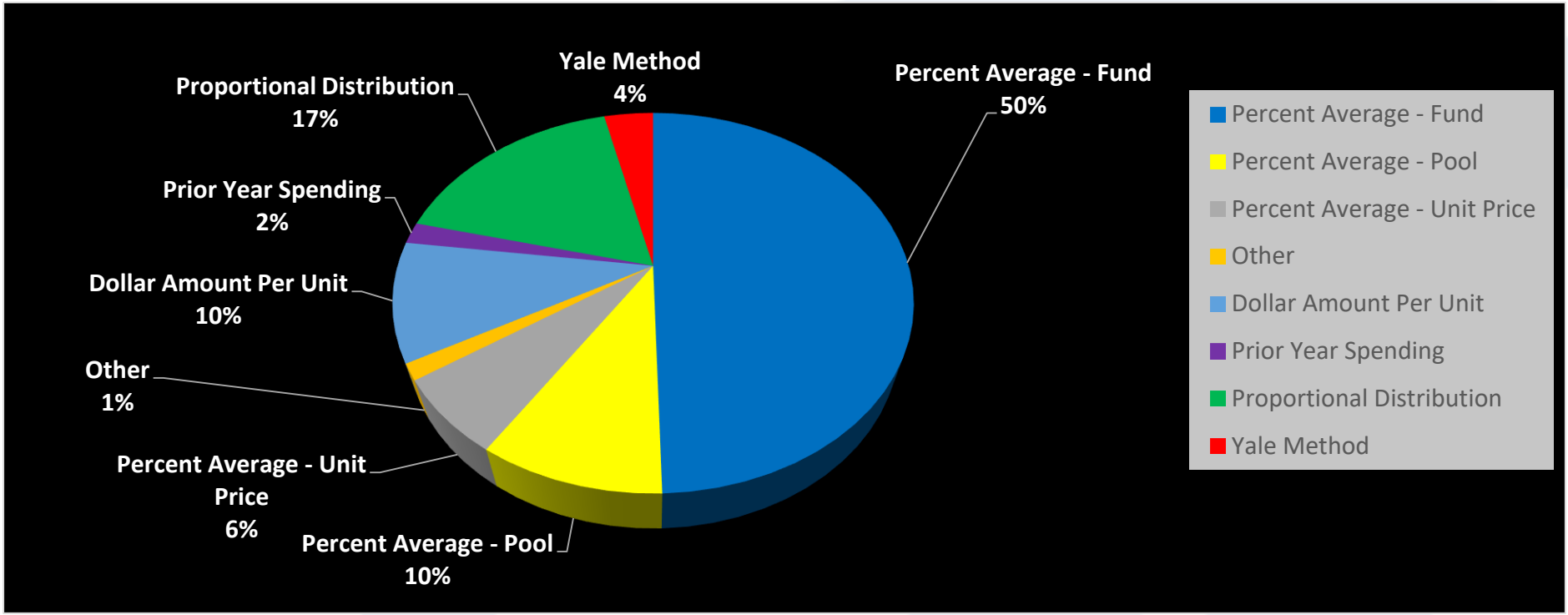
Fundriver Clients: Spending Rule Type Used



Client Data: Rule Types

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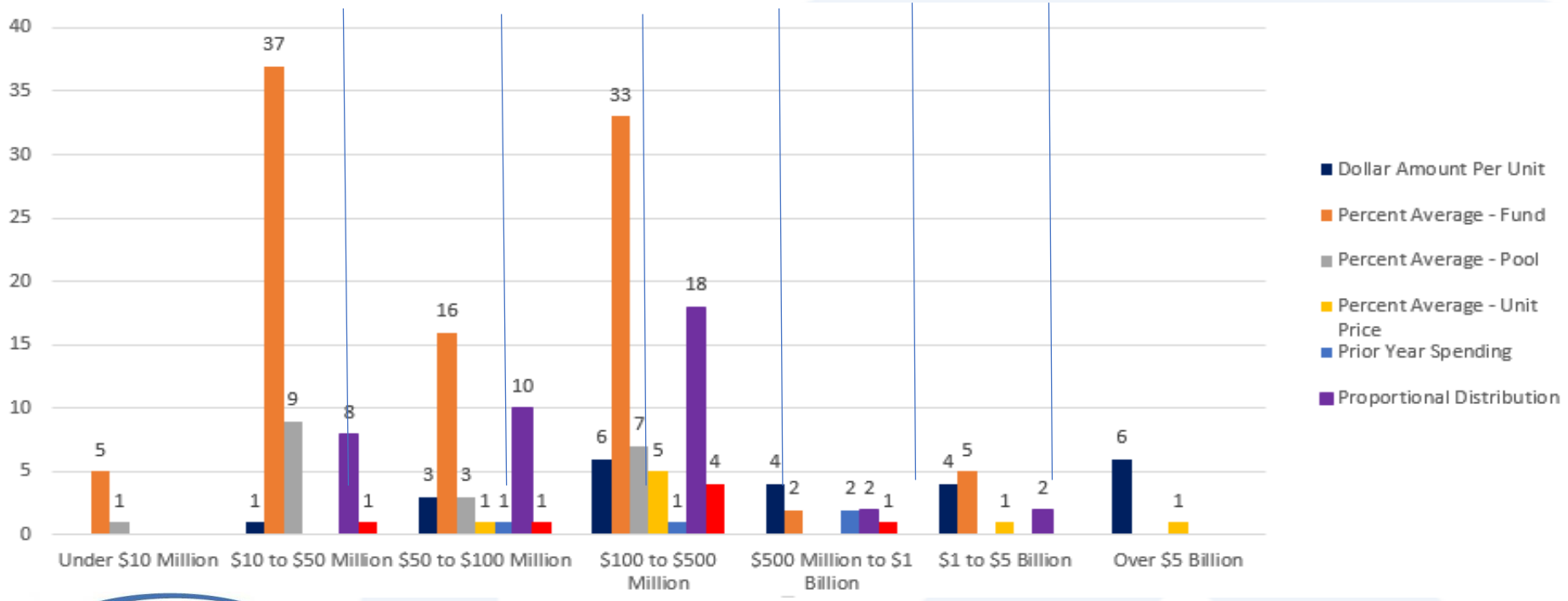
Fundriver Clients: Spending Rule Type Used by Endowment Size



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Client Data: Rule Types

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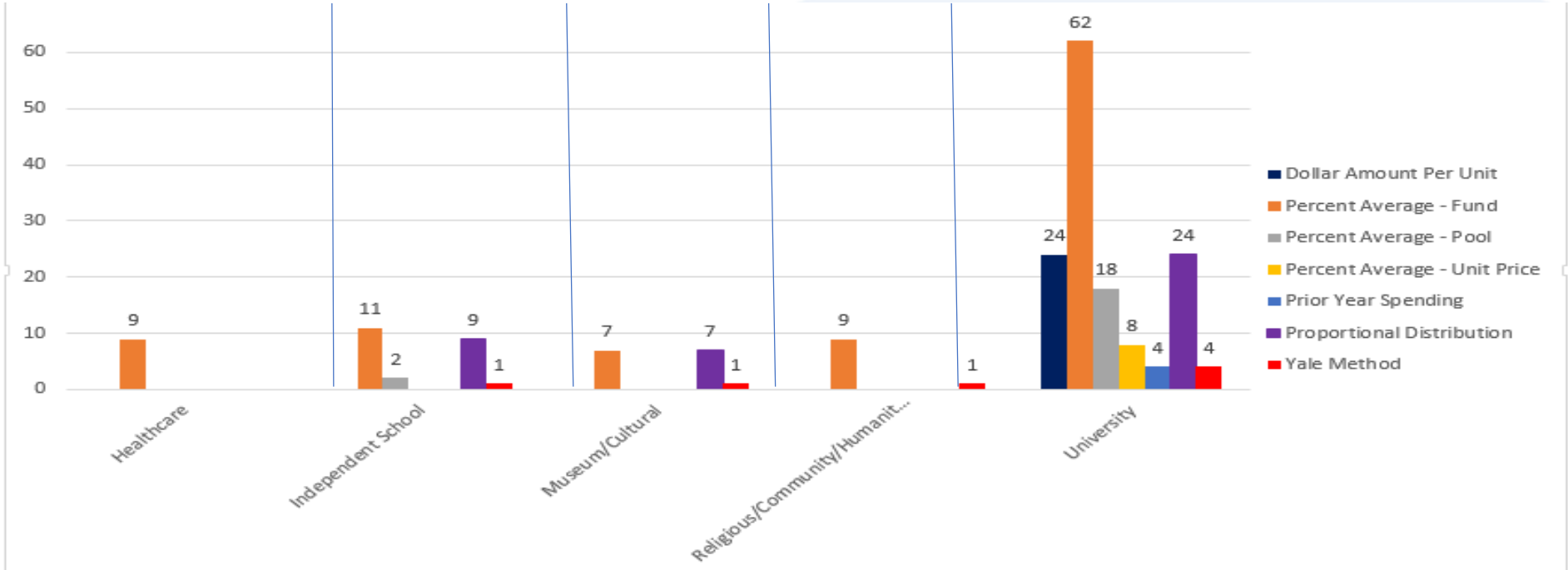
Fundriver Clients: Spending Rule Type Used by Org Type



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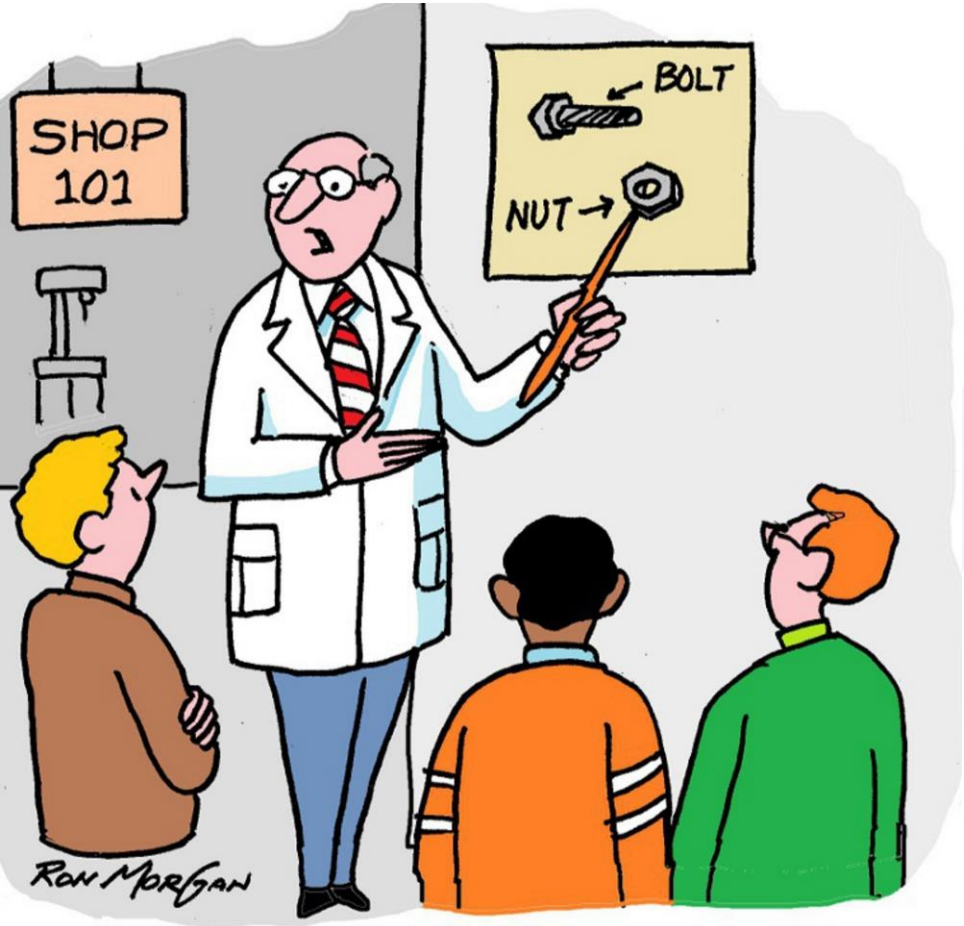

"You've even got me confused now but I'm reasonably sure it's 'righty tighty - lefty loosey'."

CartoonStock.com

Spending and Unitization Model

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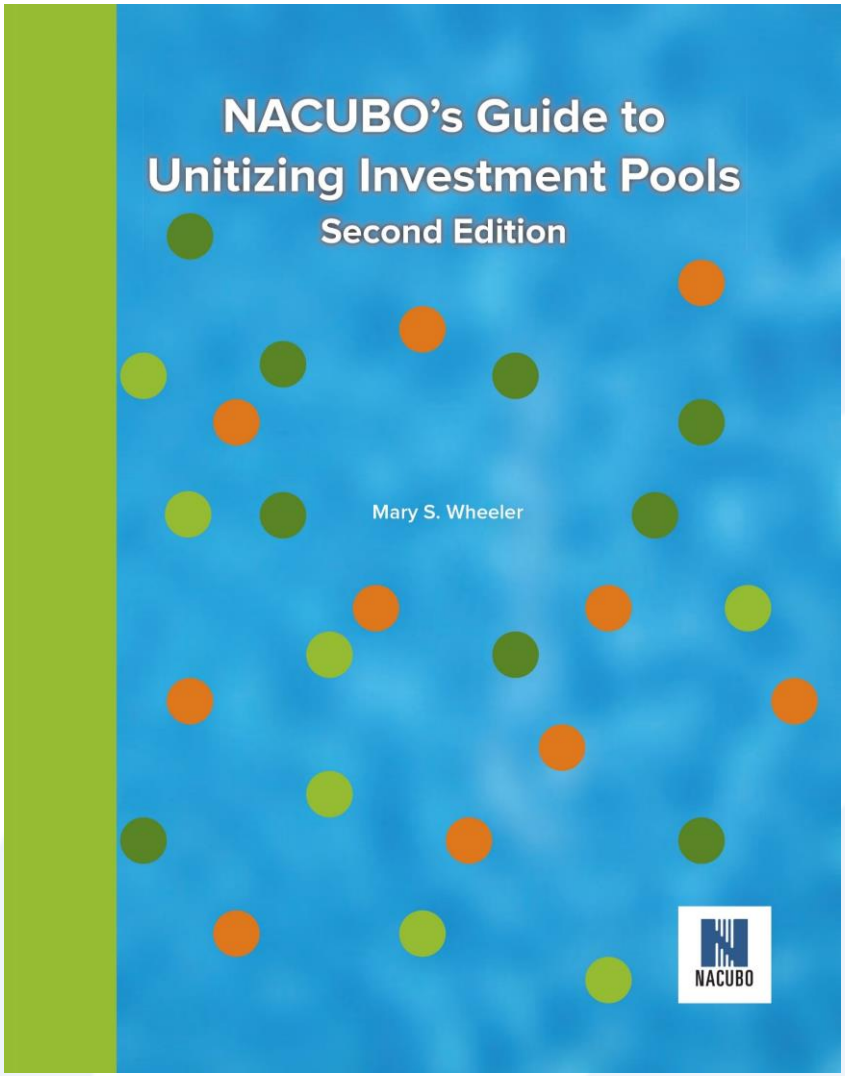

Account for spending on the fund level

Principal Only

Book Value Method

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Principal Only vs Book Value

Principal Only

- Spending allocated like investment activity
- Spending reduces the unit price
- Same effective rate must apply to all funds

Book Value

- Distributions handled like other cashflows
- Reduces the number of units
- Allows for different effective rates

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Principal Only – Step 1

Pool Market Value Before Distribution	6,033	
Total Distribution Amount (Avg Unit Price)	264	Subtract
Pool Market Value After Distribution	5,769	
Unit Balance	57.2056	÷
New Unit Price	100.8403	

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Principal Only – Step 2

	Starting		Ending	
Unit Price	105.4620		100.8403	-4.38%
	Market Value	Units	Market Value	Change
Fund A	1,587	15.0481	1,517	-4.38%
Fund B	1,266	12.0000	1,210	-4.38%
Fund C	1,042	9.8810	996	-4.38%
Fund D	1,274	12.0840	1,219	-4.38%
Fund E	864	8.1925	826	-4.38%
	6,033	57.2056	5,769	

All must be the same

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Book Value

	Starting			Avg of Fund MV			Ending		
	Market Value	Unit Balance		Distri-bution	Units Sold		Unit Balance	Market Value	Change
Fund A	1,587	15.0481		-63.32	-0.6485		14.3997	1,519	-4.31%
Fund B	1,266	12.0000		-55.46	-0.5679		11.4321	1,206	-4.73%
Fund C	1,042	9.8810		-41.92	-0.4293		9.4517	997	-4.34%
Fund D	1,274	12.0840		-49.60	-0.5079		11.5760	1,221	-4.20%
Fund E	864	8.1925		-38.88	-0.3982		7.7944	822	-4.86%
				-249.18				5,764	
	Beginning Unit Price	97.65					Ending Unit Price	105.462	

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Principal Only vs Book Value

Principal Only

- Only one spending rule
- Exceptions must be handled by share reinvestments/ withdrawals to maintain proportional ownership.

Book Value

- Multiple spending rules allowed
- Do not reinvest/withdraw units for different rates

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Spending Rules & Unitization Method

Principal Only

- Top-down rules
- Average Unit Price
- Distribution Per Share

Book Value

- Bottom up rules
- Average of funds rules

Average of Pool Market Value

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Principal Only

- Easier to calculate overall
- Exceptions harder
- Only one spending rule

Book Value

- Calculation more difficult
- Easier exceptions
- Allows for different distribution rates.

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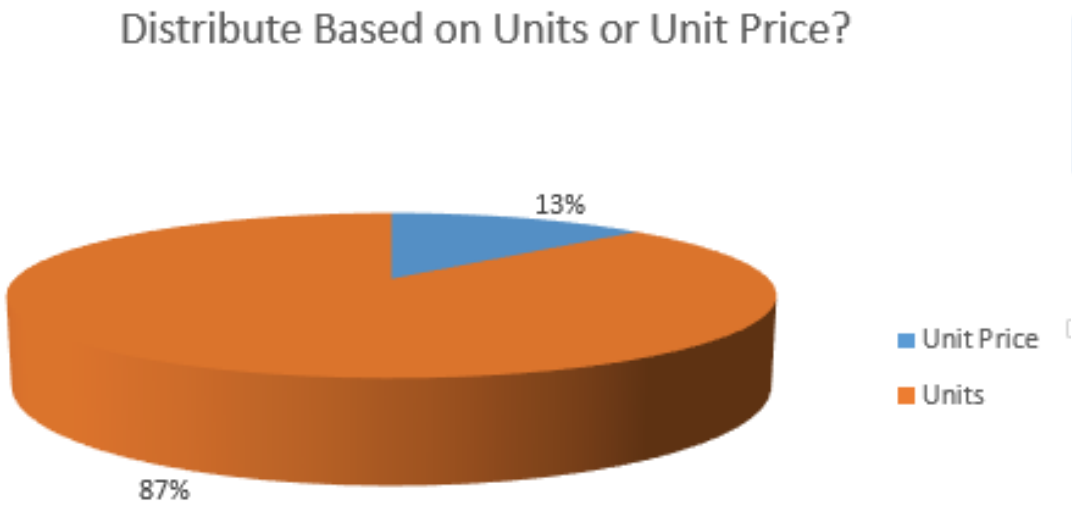
Book Value vs Principal Only



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Book Value vs Principal Only

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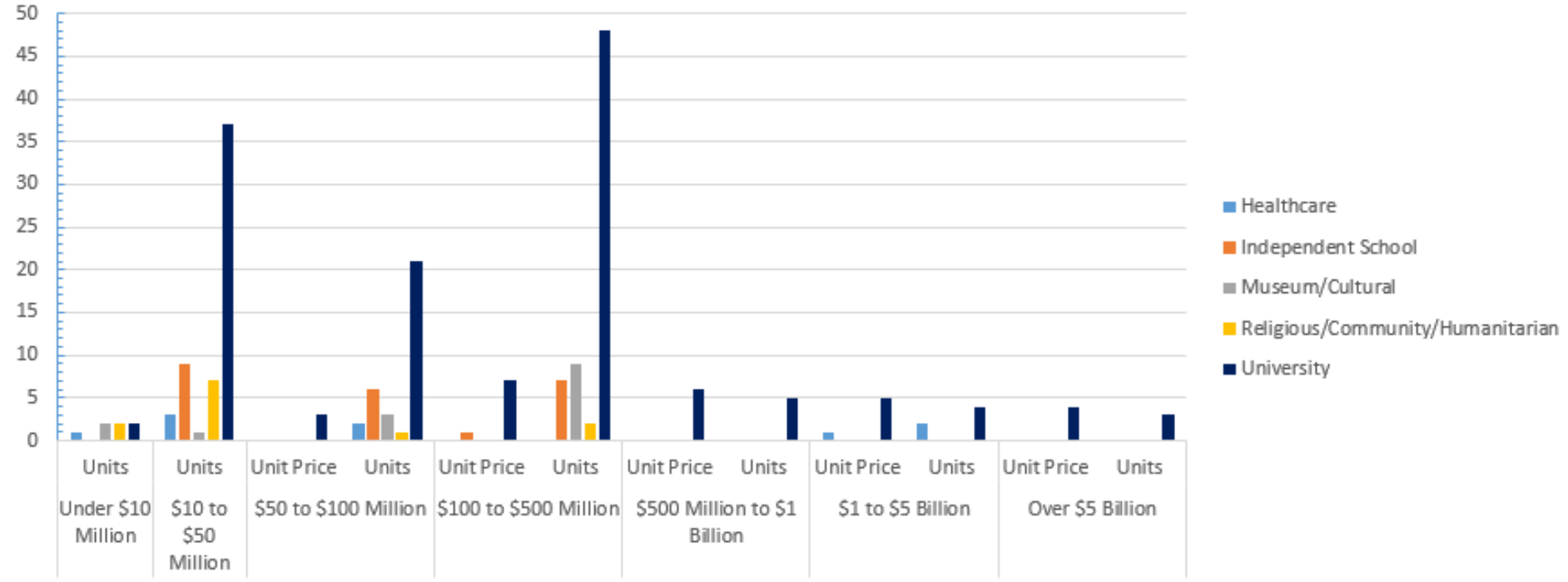
The majority of clients have distributions reduce the # of shares in the pool. The advantage of this approach is that it allows for different distribution rates to be applied.



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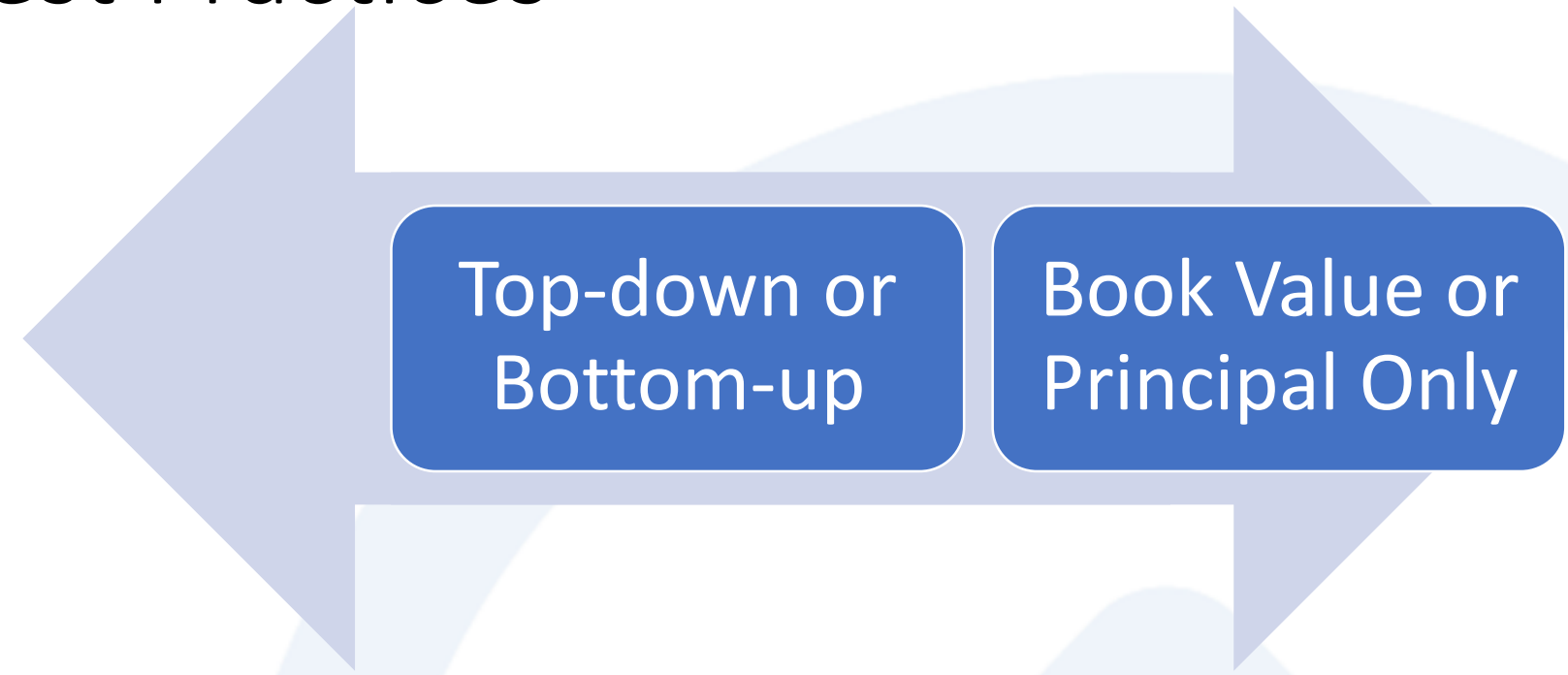
Best Practices



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Best Practices

- Fairness vs Simplicity:
  - Complex rules harder to explain to recipients and donors
  - More difficult to catch mistakes

"Simplicity boils down to two steps: Identify the essential, eliminate the rest"
- Leo Babuta

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Additional Resources

- Fundriver webinar – deep dive on calculations
- NACUBO book
- Fundriver knowledge base

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CPE Question

Who is using a top down approach vs bottom-up

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1	Make calculations more transparent – respond to “Proof” requests
2	Interface more transparent – no more settings behind the scenes
3	Allow for more flexibility – add secondary rules
4	Support for non-pooled funds module

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Questions

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