

CONSUMPTION-BASED FIXED REVENUE

A novel, equitable approach to
financial sustainability

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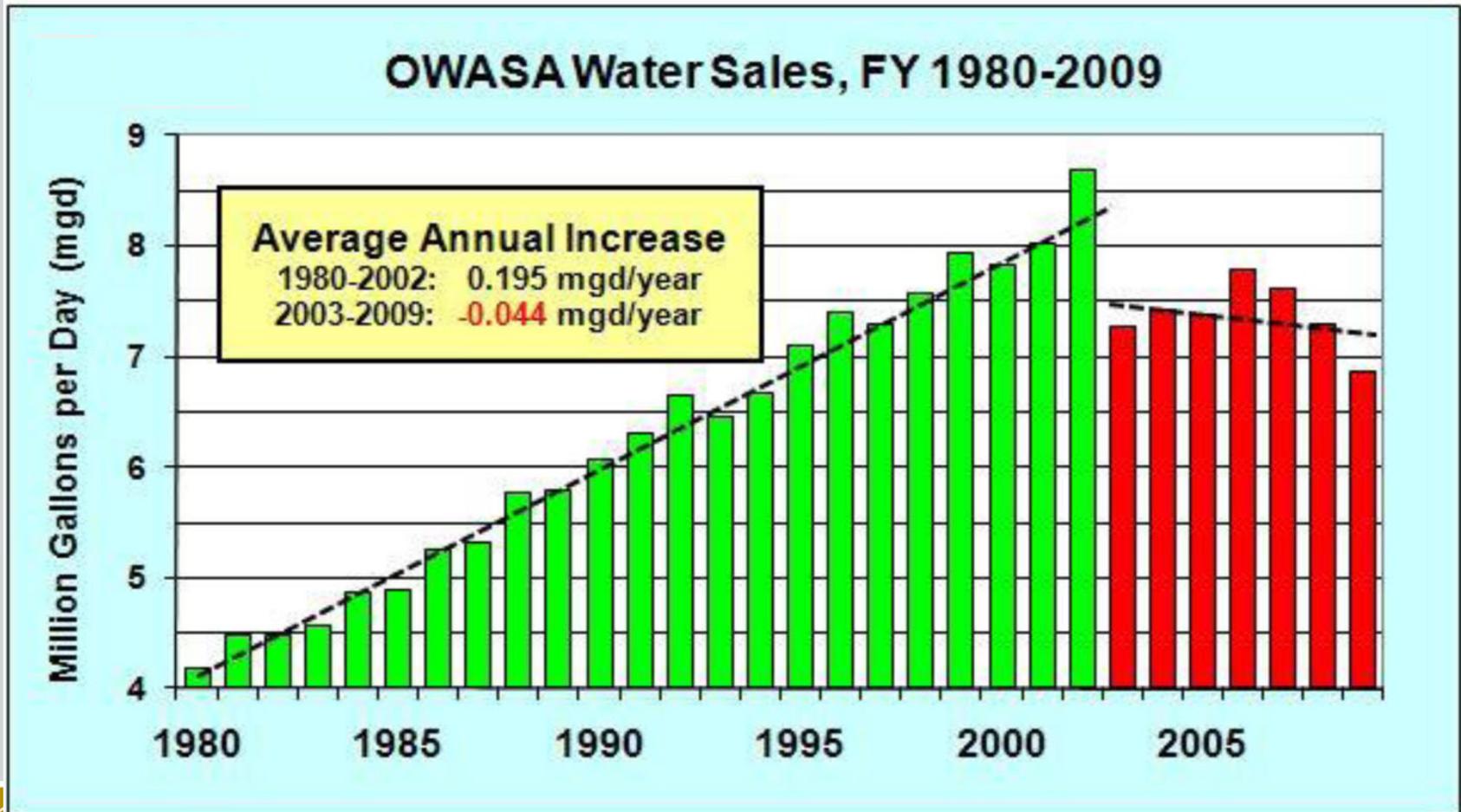
Davis resident

Frank Loge, PhD

Civil & Environmental Engineering, Professor

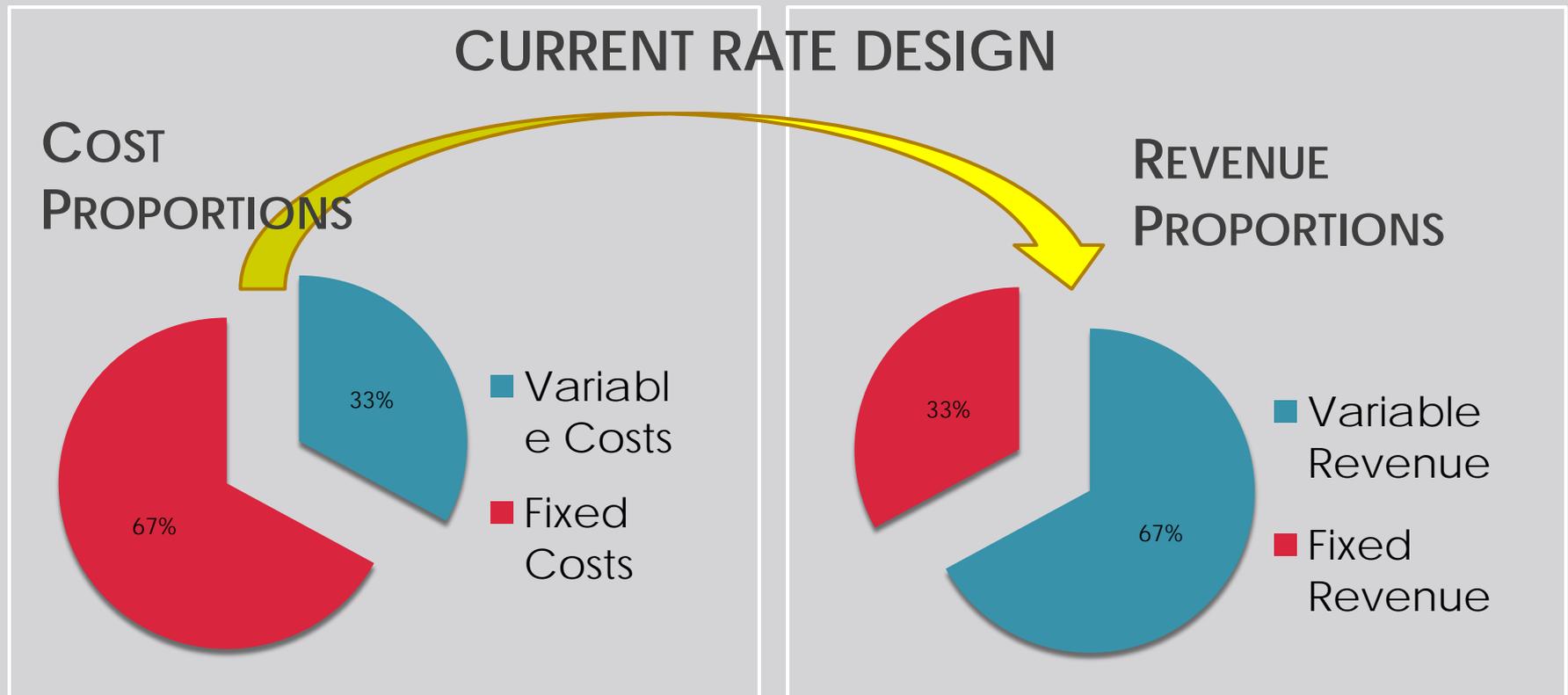
UC Davis Center for Water-Energy Efficiency, Director

THE PROBLEM



FIXED VS. VARIABLE ... COST VS. REVENUES

- For Agencies this disconnect means a STRUCTURAL DEFICIT...

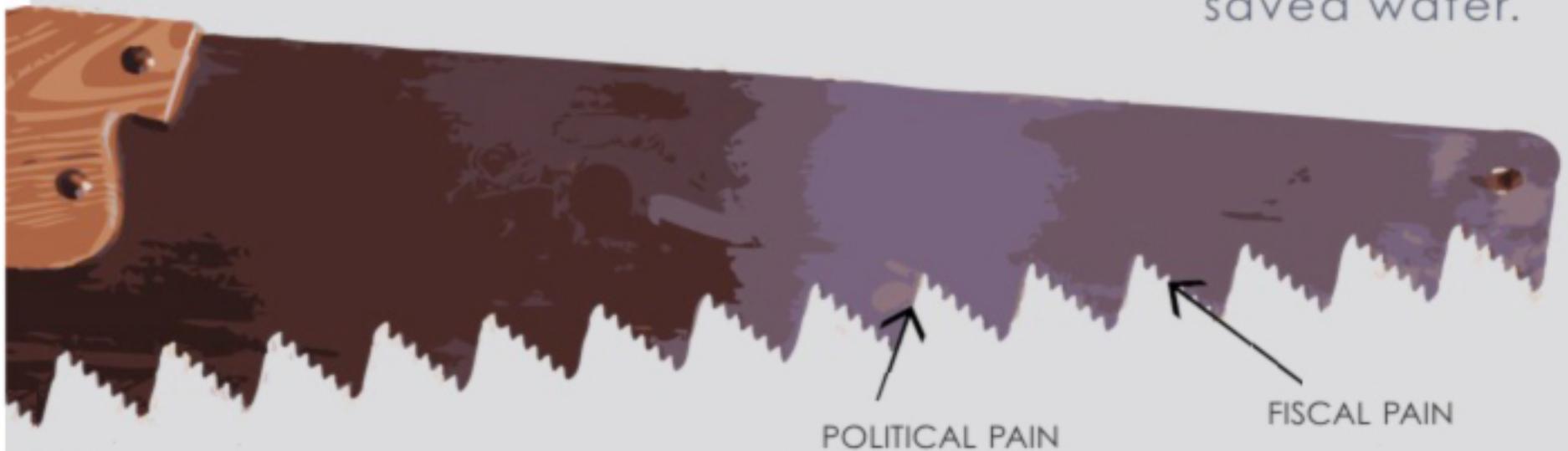


- And the more we conserve, the more DEFICIT we create



PROBLEM STATEMENT

- To eliminate losses, utilities then use rate increases which send confusing messages to water users.
- Instead of being rewarded for their behavior, customers are actually charged more after they have successfully saved water.



DEALING WITH A STRUCTURAL DEFICIT

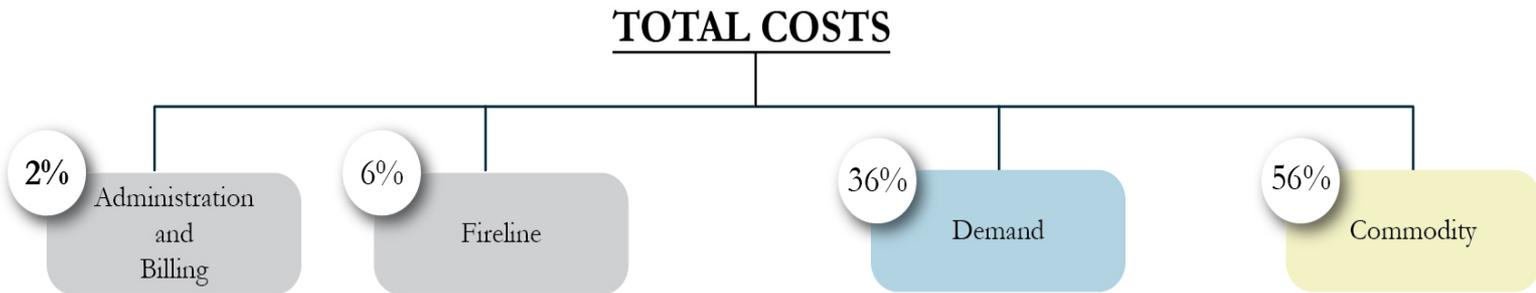
- Build a cushion (“gouge” customers in early years?)
- Run with the deficit and/or draw down reserves
- Go back to the consumers frequently with a **Rate Increase** or a **Decoupling Settlement** with higher rates

NONE OF THESE OPTIONS MEET THE STANDARD OF PROVIDING
REASONABLE AND STABLE WATER RATES FOR THE CONSUMER AND...
ALL ARE POLITICAL DYNAMITE



AWWA COMMODITY DEMAND MODEL

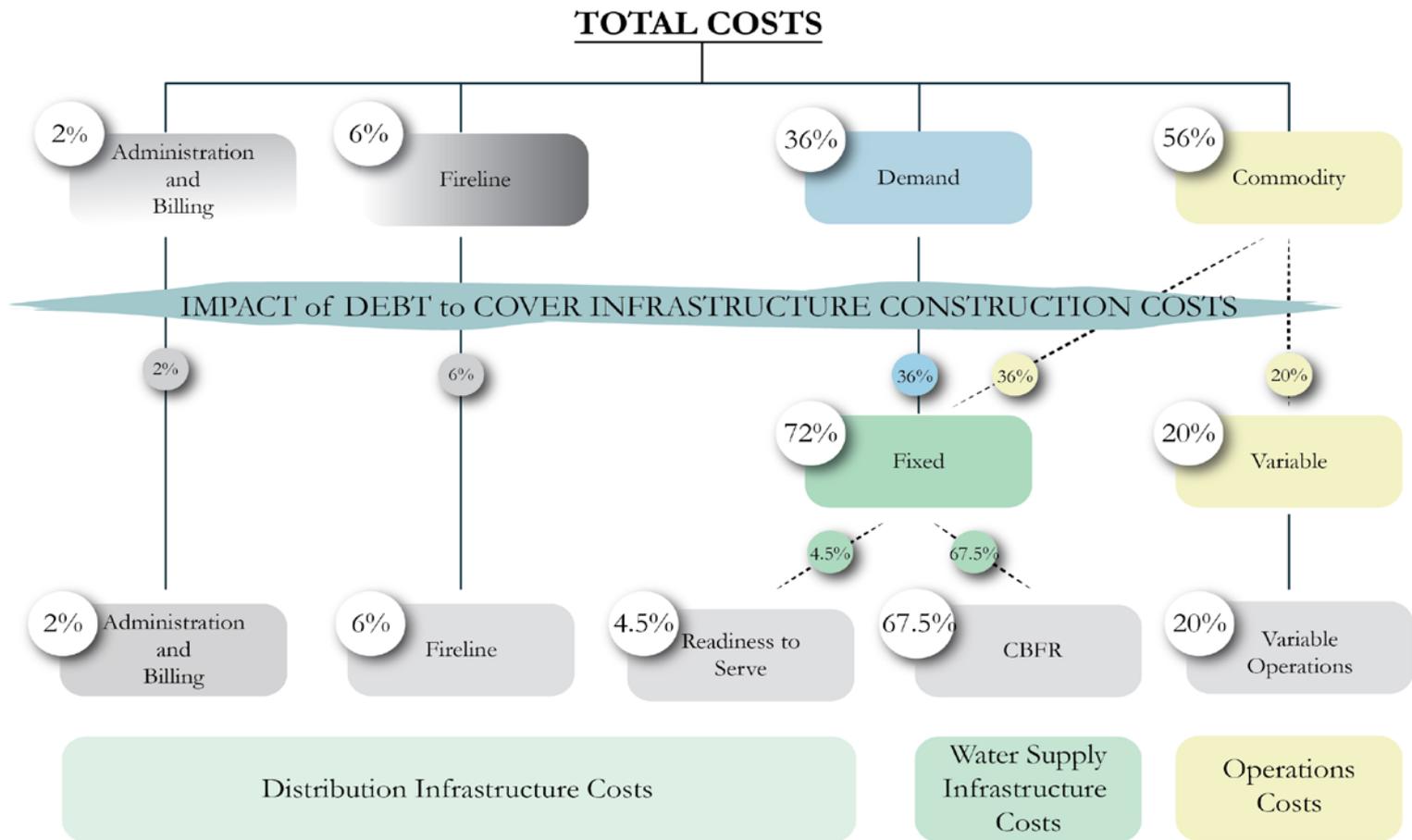
Engineering Model



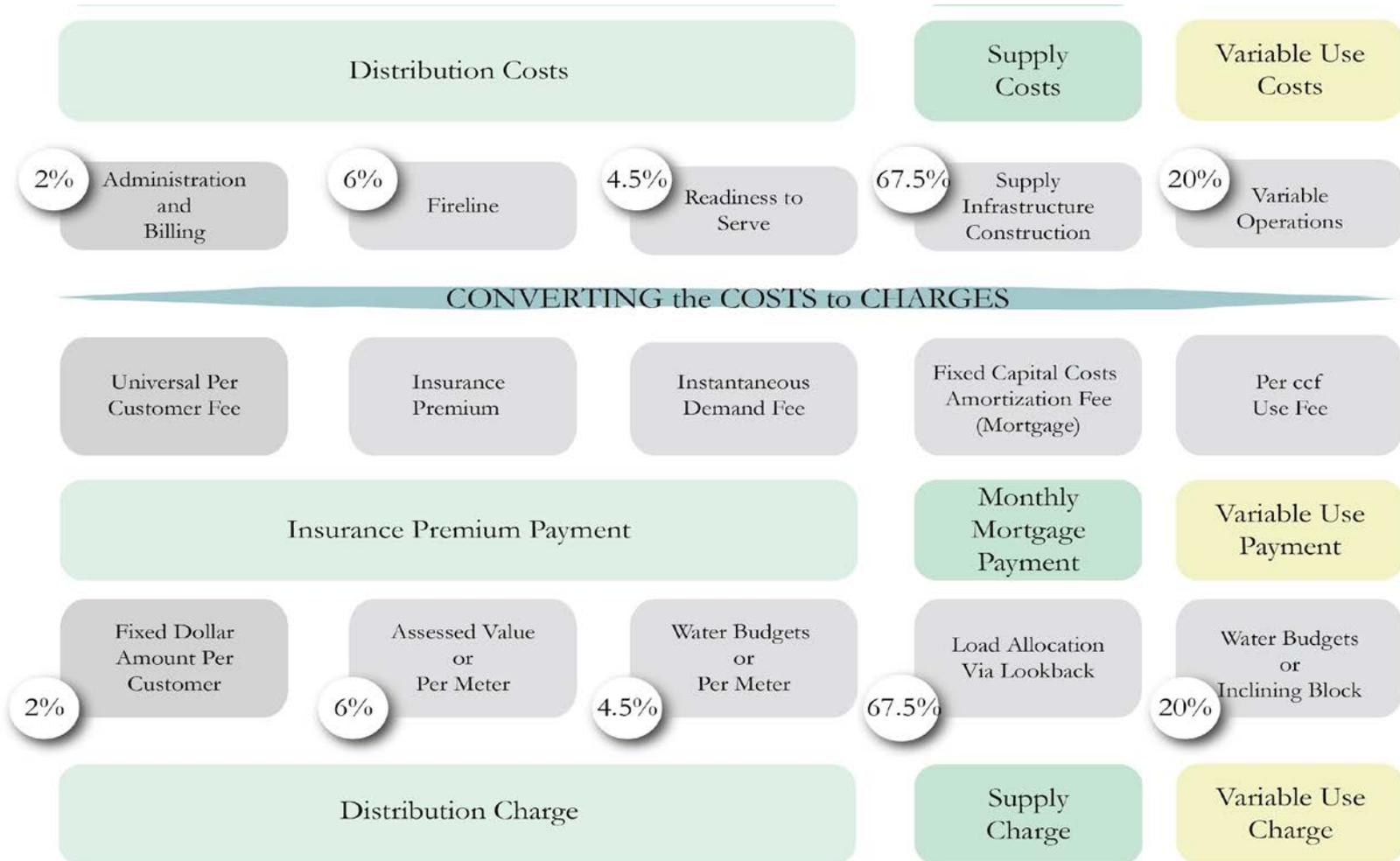
IMPACT OF DEBT

Engineering Model

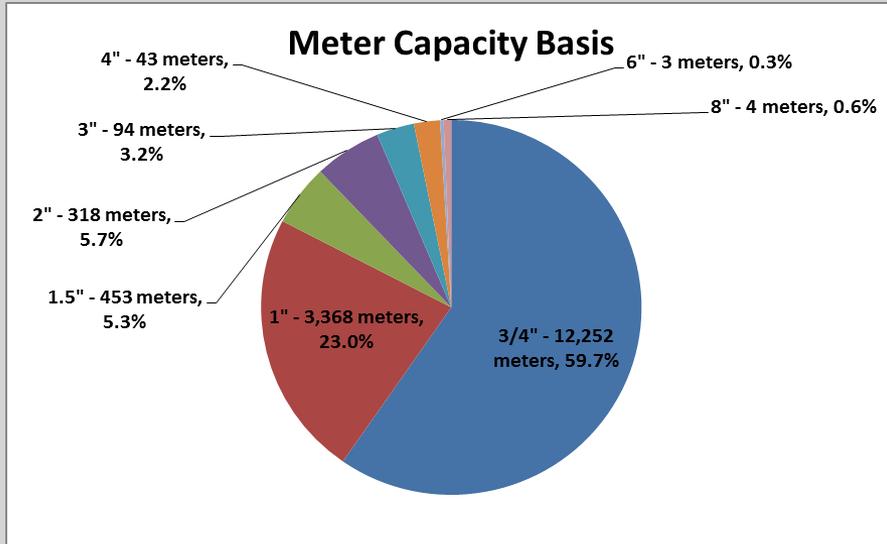
Accounting Model



CONVERTING COSTS TO CHARGES

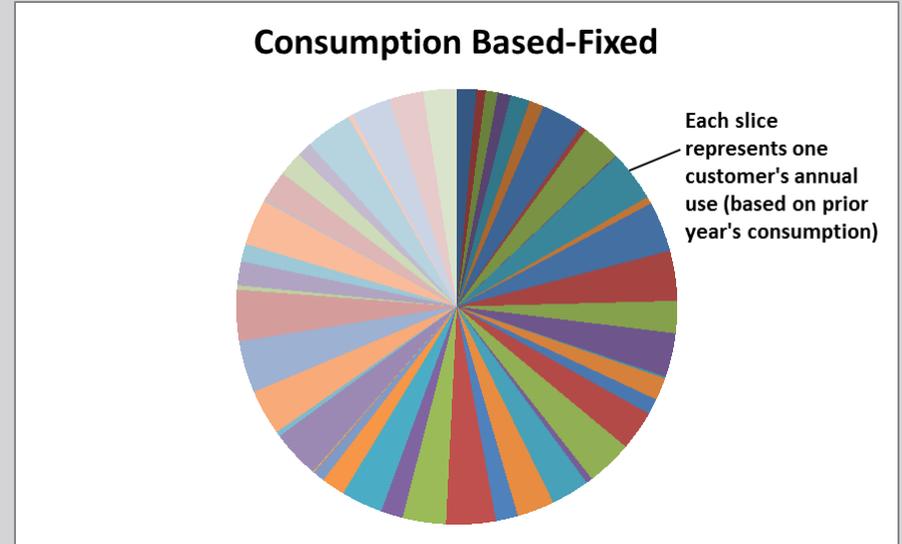


RECOVERING FIXED COSTS



Pie represents total fixed charges

- Most widely used method
- Simple to understand
- Each meter size further subdivided



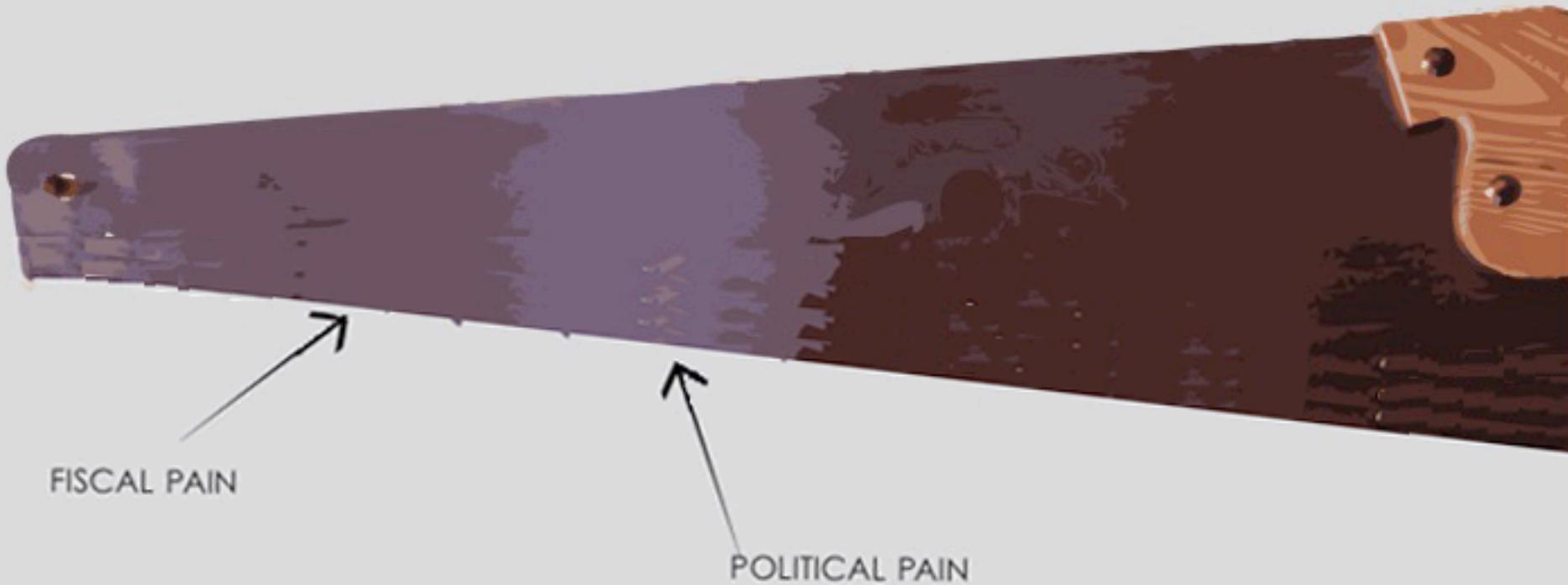
Pie represents total fixed charges

- Supports Fiscal Stability and Sustainability
- Expands conservation message to "stewardship of collective asset"



SOLUTION STATEMENT

- Balance is achieved between competing objectives



FUNDING IMPACT

- Very low risk of “Emergency” Rate Increases or Decoupling Settlements.
- Five year stable rate structure means a more reliable revenue stream that is desirable for bond funding.
- More Revenue Bond funding rather than General Obligation Bond funding
- Standard & Poor’s and Moody’s have assessed CBFR as positive impact on risk.
- Bottom-line = Lower interest rates from bond funding



ARGUABLY, SETTING FIXED FEES BY METER SIZE FAILS PROPOSITION 218'S PROPORTIONALITY TEST

- It requires low-water-use customers to pay fixed costs for water they have the theoretical potential to use, but do not have the actual capacity to use.
- It gives those customers who use a larger “share” of the water infrastructure (based on meter size) an incentive to do so.
- Thrifty and extravagant water users pay the same fixed fee, but derive entirely different benefits from the system.
- The thrifty user's fixed fees cover some of the fixed costs the wasteful user imparts on the system, in effect subsidizing the water waster.



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