Pension Funding and Expensing

(Room Document Nº13, Session 6)

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Part 1
Pension Funding Overview

- Focus is on defined benefit plans.
- What do we mean by funding?
- Why fund?
- Examples of funding.
- Actuarial costing methods.

Two Types of Pension Plans

	Defined Contribution Plans	Defined Benefit Plans
Employee's contribution	Percentage of salary	Percentage of salary
Company's contribution	Percentage of salary	???
Amount of pension	???	Per formula
Investment risks, etc…	Employee	Employer

Definition of (Advance) Funding

"Setting aside assets in advance of the time when the benefits are payable".

Recognizes the long delay between employees earning entitlements to benefits and actually receiving the payments.

Gives substance to the employer's obligation (benefit security to participating employees).

Normal Advantages of Funding

- Tax effectiveness.
  § deductibility of company contributions;
  § such contributions not taxable to employees;
  § investment income is tax-sheltered.

- Employee contributions are possible
  (and, hopefully, tax deductible).

- Is more cost effective than not funding.

Potential Disadvantages of Funding

- **Employer’s cash flow needs.**
- **Higher internal rate of return.**
- **Employee (job) security.**
- **Unhelpful legislative environment.**
- **Poor choice of investment vehicles.**
- **Limited investment opportunities.**

The Perfect Funding Vehicle

- **Tax effective (EET).**
- **Low operating costs.**
- **Low compliance costs (government filings).**
- **Flexibility on funding and investment.**
- **High investment yields (efficient markets).**
- **Third party services.**

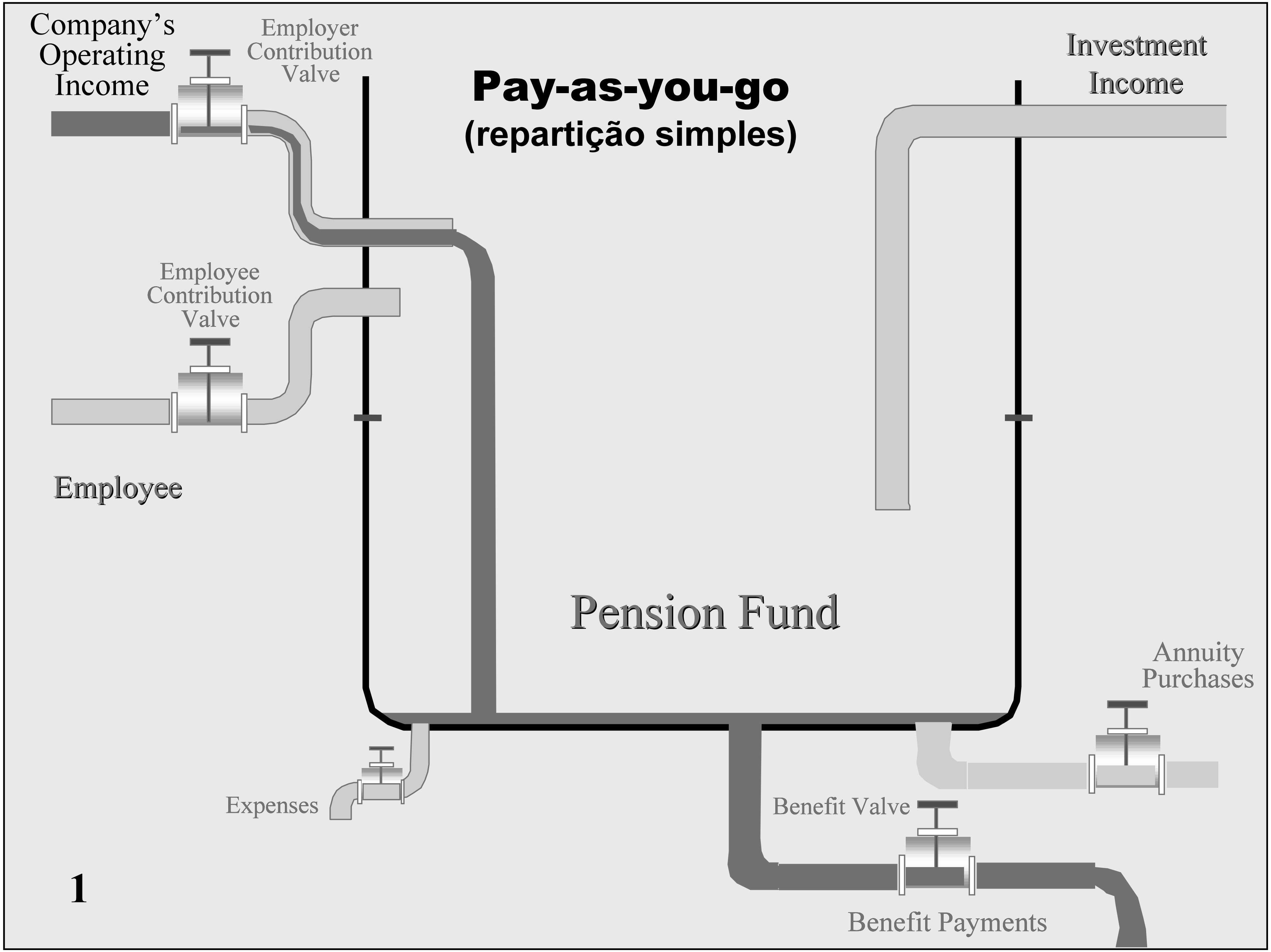
EMPLOYERS TRUE COST

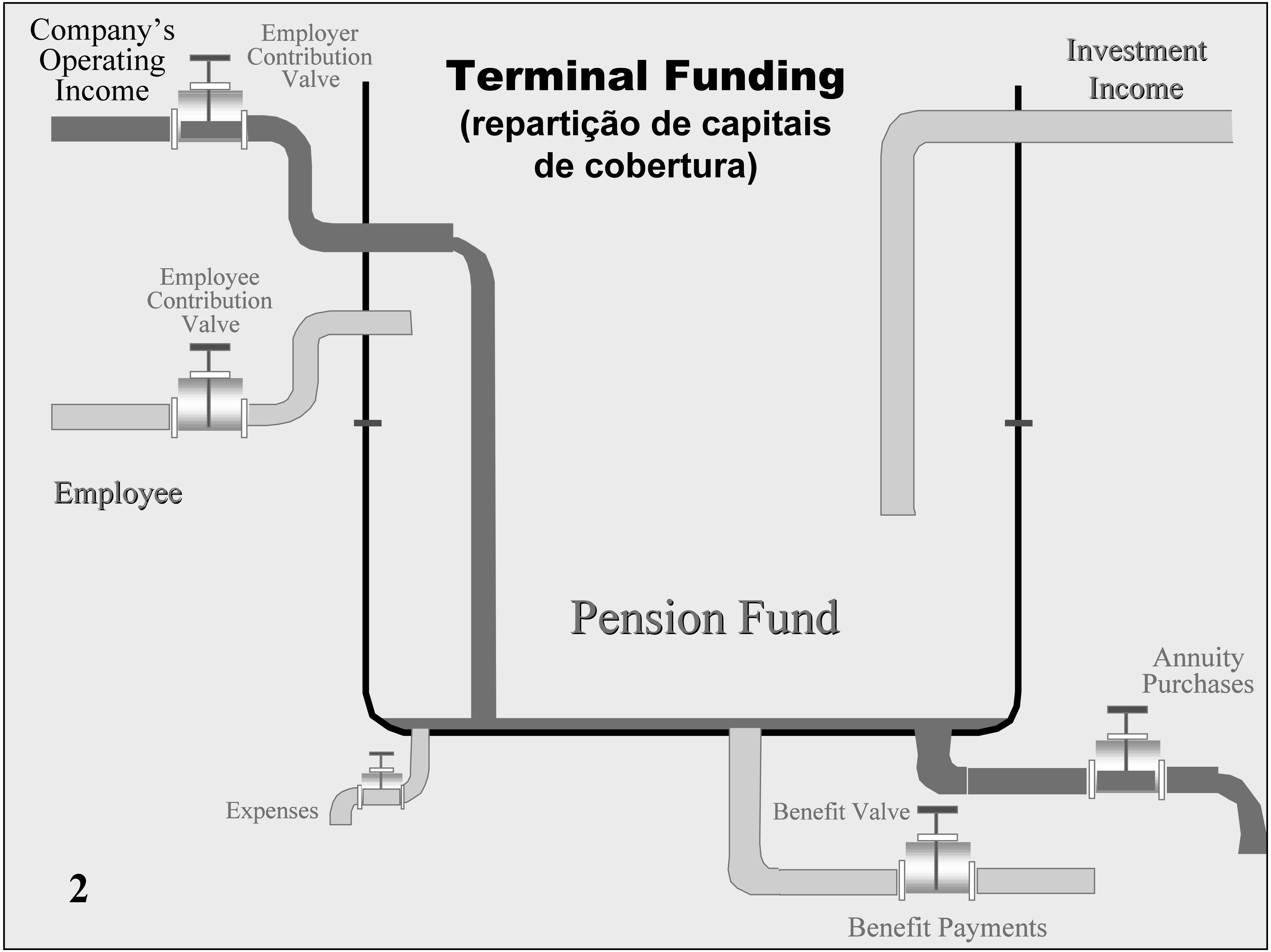
EQUALS

BENEFIT PAYMENTS	+	EXPENSES

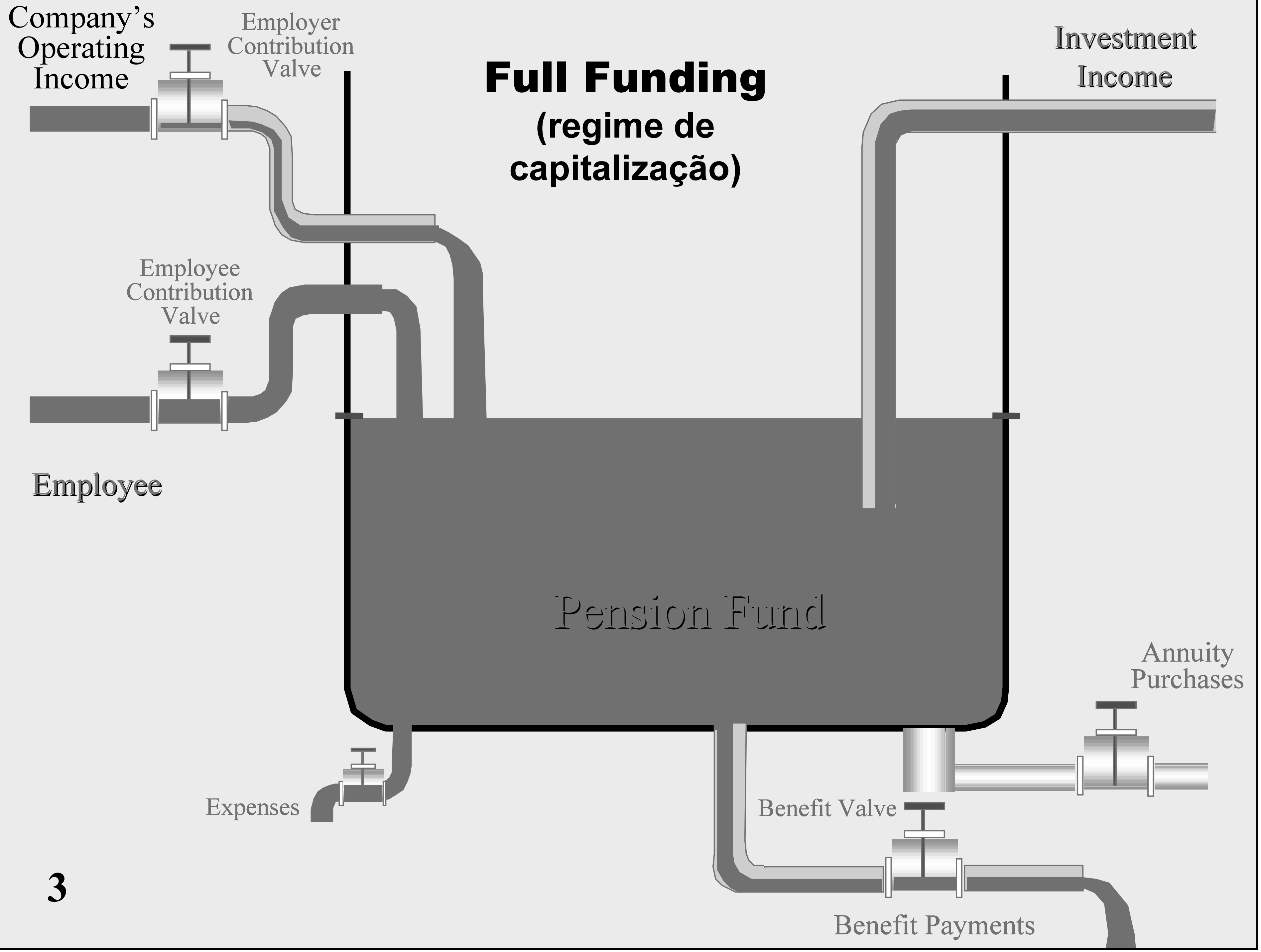
LESS

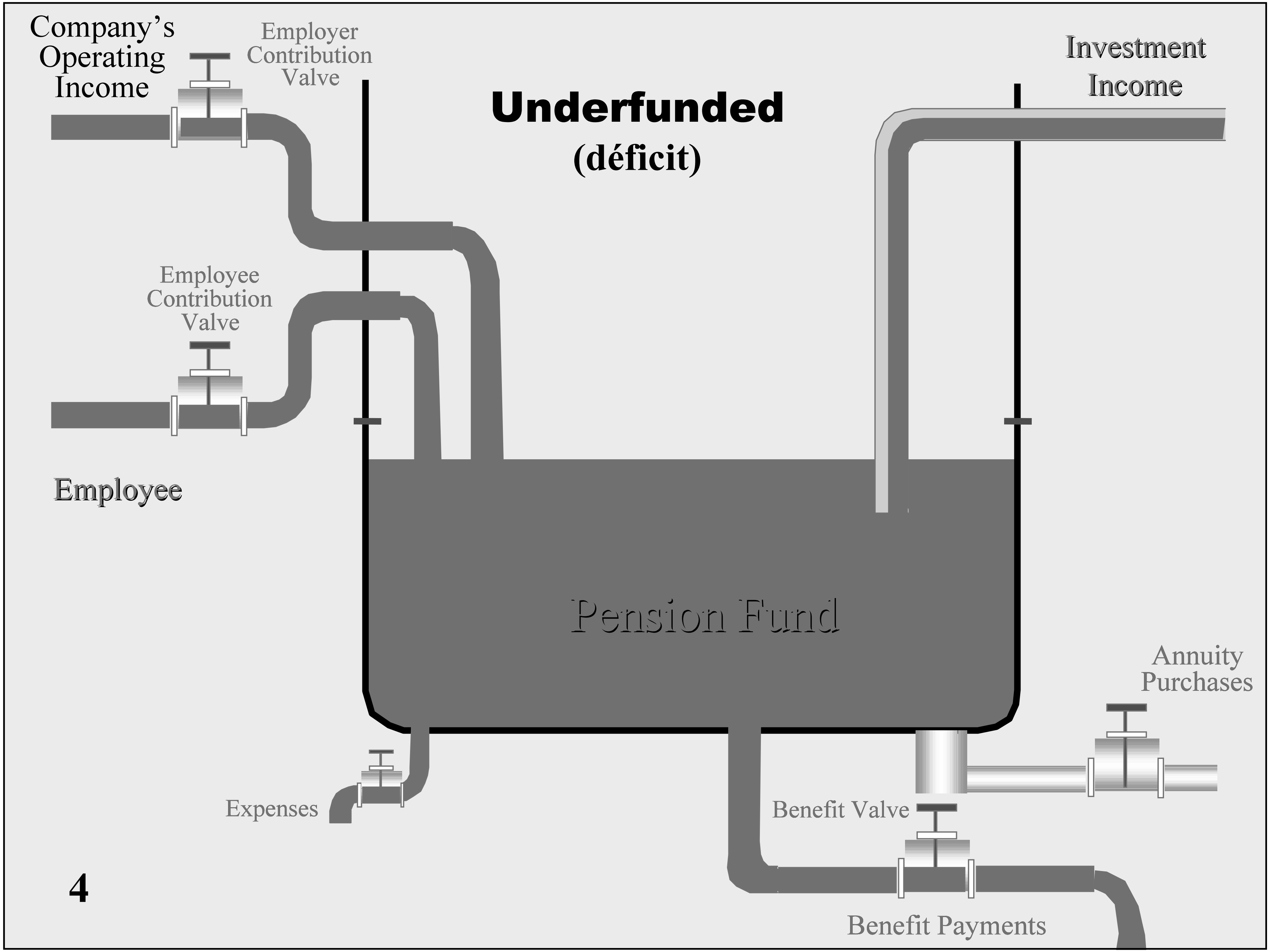
INVESTMENT INCOME	+	EMPLOYEE CONTRIBUTIONS

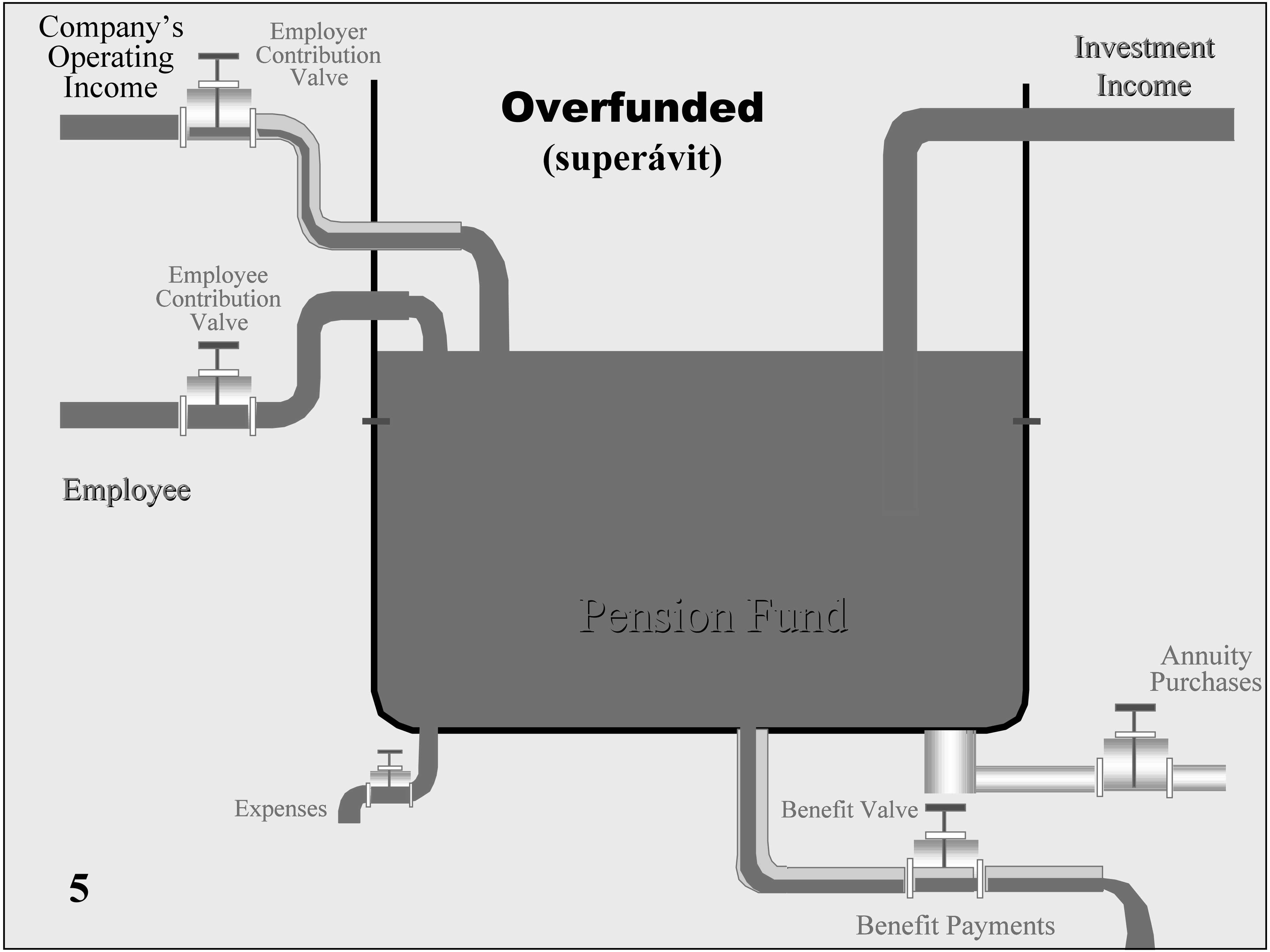

Company's Operating Income
Employer Contribution Valve
Pay-as-you-go
(repartição simples)
Investment Income
Employee Contribution Valve
Employee
Pension Fund
Annuity Purchases
Expenses
Benefit Valve
Benefit Payments
1


Company's Operating Income
Employer Contribution Valve
Terminal Funding
(repartição de capitais de cobertura)
Investment Income
Employee Contribution Valve
Employee
Pension Fund
Annuity Purchases
Expenses
Benefit Valve
Benefit Payments
2

Full Funding
(regime de capitalização)




Company's Operating Income
Employer Contribution Valve
Underfunded
(déficit)
Investment Income
Employee Contribution Valve
Employee
Pension Fund
Annuity Purchases
Expenses
Benefit Valve
Benefit Payments


Company's Operating Income
Employer Contribution Valve
Overfunded
(superávit)
Investment Income
Employee Contribution Valve
Employee
Pension Fund
Annuity Purchases
Expenses
Benefit Valve
Benefit Payments

5

Enter - The Actuary !

Q = What is an actuary?

A = Someone who found accounting too exciting.

The Actuarial Process

Funding = process of establishing a smooth funding program to meet the ultimate costs of the plan.

Cost (year-to-year) is a function of:

- actuarial funding method.
- the assumptions used.

But, How Much Funding This Year?

- **Cost of one more year’s benefit accruals.**
- **Correction of past underfunding/overfunding.**
- **But, subject to legislative constraints.**
- **And, company’s tax and cash flow objectives.**

In some countries, actuary has considerable flexibility to choose/manipulate the actuarial assumptions and actuarial costing method

Actuarial Costing Methods

What is this guy talking about?

Unit credit type methods (see "accounting"):

- **Cost of one more year's benefit accruals.**
- **Correction of past underfunding/overfunding.**

Aggregate methods:

- **Combine accrued (past service) liabilities and future service costs into one figure.**

Other issues:

- **Closed group or open group.**
- **Legislative constraints on methods.**

Setting the Assumptions

- **Economic assumptions.**
- **Demographic assumptions.**

Economic Assumptions

- Interest rates.
- Investment returns.
- Salary increases.
- Social security increases/decreases
- General wage and price inflation.
- Administration costs.

Demographic assumptions

- **Leaving before retirement (rotatividade).**
- **Becoming disabled (invalidez).**
- **Dying before retirement (morte antes de reforma).**
- **Age of actual retirement (aposentadoria).**
- **Longevity after retirement (expectativa de vida).**

Open group valuations:
assumptions on new hires.

From Funding

To Expensing

International Accounting Standards

"Funding" was so complicated. Why do we also need "Expensing"?

Because accountants do not trust:

1. **Government funding legislation.**
2. **Actuaries!**

Accountants & analysts believe plan sponsor's annual funding contributions are not always an accurate reflection of the company's true pension cost. They are right!

- Consistently exaggerated (e.g.conservative assumptions)
- Consistently underestimated (e.g. method or assumptions)
- Too easy to manipulate (even actuaries have imaginations)

Why Pension Expensing is so Important?

- **The numbers can be very big:**
  - § Income statement (profit and loss account)
  - § Balance sheet
  - § Mergers and acquisitions implications
  - § Privatizations, prospectuses, disclosures, etc…
- **Emphasizes importance of investment performance.**
- **Destroys myth about benefit improvements being free.**
- **The “real cost” has to be calculated (by the actuary) and understood (by everyone).**

Reasons to Fear Pension Accounting

Expensing standards have the potential:

- **adversely to influence investment policy;**
- **to push employers further towards DC;**
- **to aggravate the debate on ownership of "surpluses".**

Expensing standards can also affect the timing and nature of benefit improvements - this could be a positive constraint, e.g. recognizing past service benefits in gradual, affordable installments.

So Many Players and Rules!

FASB

FAS 88

CICA

IAS 19

FAS 87

CICA 3461

IASB

SEC

IASC

EU

EIC-1

FAS 132

78/660/EEC

ASB

FAS106

IOSCO

EIC-23

FRS 17

FAS 112

83/349/EEC

CVM371

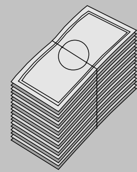
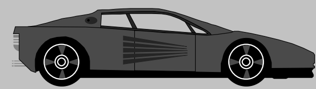
Objectives of Various Pension Accounting Standards

- Consistency of expense from one year to next (FAS87)
- Comparability between different companies (FAS87)
- Expensing over employee's working lives (FAS87)
- Single set of meaningful accounts (IAS19)
- Comparability for multinationals (IAS19)
- Level playing field (IAS 19)
- Essential element of Financial Services Action Plan (EU)

Now to an Overview of IAS19

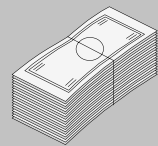
Benefits affected by IAS19

- Short term benefits (≤ 12 months)
  - salary, vacations, bonuses, cars

- Post-employment benefits
  – pension, insurance, medical

- Other long term benefits
  – profit sharing, deferred bonuses



- Termination benefits
- Equity compensation plans

Basic Principles of IAS19

- Recognize both legal *and constructive* obligations.
- Projected Unit Credit actuarial costing method.
- Demographic and financial actuarial assumptions must be "unbiased and mutually compatible".
- Furthermore, financial assumptions must be based on market expectations (over period matching obligations).
- Plan assets to be carried at "fair value".
- Discount rate: market yields on high quality corporate bonds (currency and term consistent with obligations).

IAS 19 Calculations: three basic figures

- **Present Value of Defined Benefit Obligation (DBO):**
  accrued liabilities, for service already worked,
  … and including allowance for future salary increases

- **Fair Value of Plan Assets.**

- **Current Service Cost =**
  increase in the DBO resulting from employee service in the current period (normally, the next 12 months).

IAS19 - Supplementary Calculations

Transitional Liability (TL) = DBO at IAS19 adoption date, less fair value of plan assets on same date.

Past Service Cost (PSC) = changes in DBO caused by plan amendments.

Gains and Losses.

Net cumulative surpluses and deficits arising since adoption date, because …
... investment returns,
… salary increases,
… employee turnover,
… early retirement utilization, etc..

have been different from the actuary's assumptions.

Calculation of IAS 19 Expense

Current Service Cost (net of employee contributions)

+

Interest on Accrued Liabilities (PVDBO)

-

Expected Return on Plan Assets

+

-

Amortizations of TL, PSC's and gains/losses

Amortization of Gains and Losses

- Corridor approach.
  Recognize net cumulative actuarial gain or loss that exceeds greater of:
  - § 10% of PVDBO;
  - § 10% of fair value of plan assets.
- Maximum amortization period = average remaining working lives of participating employees.
- If applied consistently, faster amortizations are permitted, including:
  - § full and immediate recognition.
  - § recognition of amounts within 10% corridor.

Example of calculation of IAS19 pension expense (and lessons to be learned)

Current Service Cost	€ 4,253
Interest on PVDBO	15,923
Expected return on assets	(19,931)
TL amortization	nil
PSC amortizations	1,395
Amortization of (gain) or loss	(636)
Income statement expense (income)	€ 1,004

Expensing v. Funding
Balance Sheet Implications

Accountants view the (IAS19, FAS87, etc...) pension expense as "the only true cost"

If company contributes/funds more than pension expense

↓

It is deemed to have "prepaid" an expense

↓

"asset" on company's balance sheet

If company contributes/funds less than pension expense

↓

A cost is deemed to still be "unpaid/accrued"

↓

"liability" on company's balance sheet

Maximum Balance Sheet Asset

"Usable surplus"
plus
unrecognized past service costs
and unrecognized actuarial losses.

Usable surplus is defined as:
"present value of any economic benefits available (to the employer) in the form of refunds from the plan or reductions in future contributions to the plan".

Conclusions

- Company management (and their advisors) need to be better educated on actuarial calculations - funding and expensing.
- Plan sponsors need a funding strategy.
- Pension funding legislation needs to be properly focused. Danger of over-regulation of DB plans
- IAS19 calculations highlight many important issues, e.g. importance of good investment returns.

Thank you for your attention. Muito obrigado.