

# EFFECT OF AFTERMARKET ASSET TO THE COMPANY CAPITAL GAIN

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# TASK STATEMENT

- The company searching for basis for expanding or maintaining production ability may select one of two options:
  - purchase new and rather expensive technology equipment
  - stay satisfied with older but cheaper equipment gained at secondary market.
- Both option should be assessed basing on well known financial technologies
  - project quality basing on static analysis
  - project quality basing on dynamic analysis



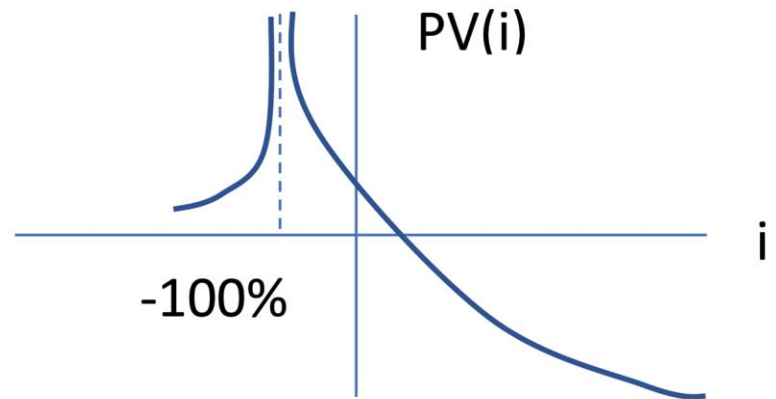
# TASK STATEMENT

- Most of marine vessels have significant first cost, and always have the demolition expenses
- Demolition expenses form the negative components at the end of project cash flow
- Negative components of project cash flow distort the expected behavior of dynamic characteristics of financial project analysis

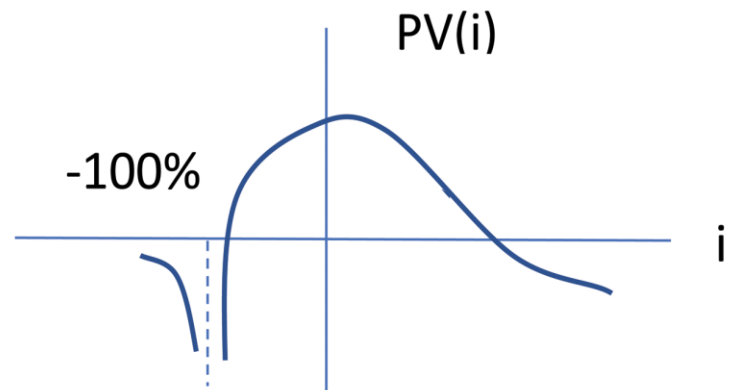


# PRESENT VALUE BEHAVIOR

- As described in any book



- When at least one cash flow at the end of project life is negative



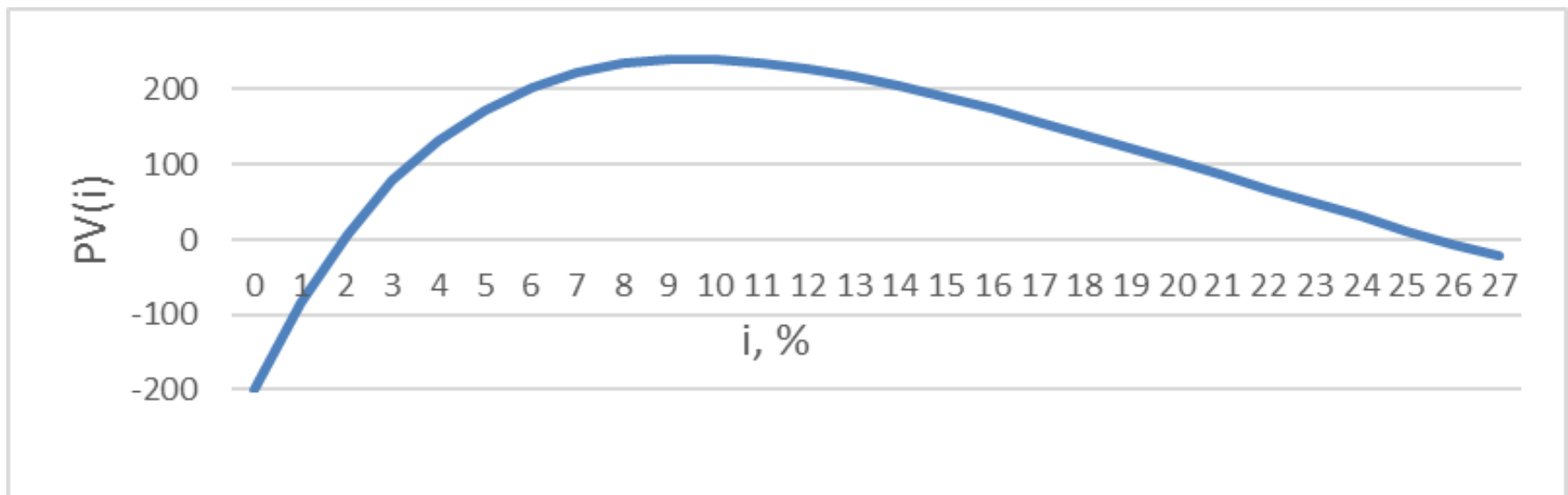
# PRAGMATIC ISSUES AND APPLICATION

- Demolition expenses change the graph of present value so it crosses the zero level at least in two points
- That means the project under analysis shows at least two internal revenue values
- Despite the expected behavior, the present value may grow with the increasing of interest rate



# PRAGMATIC ISSUES AND APPLICATION

- PV(i) behavior if first cost is comparable to demolition cost. Rather typical for marine vessel purchased at secondary market
- Static methods consider the project as unprofitable
- Dynamic methods should consider the range of interest rates. Maximal PV at interest rate between 9% and 10%



# **PRAGMATIC ISSUES AND APPLICATION**

- Existing of two internal revenue rate leads to existing of optimal present value at optimal internal revenue rate
- Dynamic analysis usually rely on some interest rate specific for the company under consideration that may be far enough from optimal values for the project
- Financial analysis at some spot interest rate becomes inappropriate
- Financial analysis should provide the behavior of present value in wide range of interest rates



# CONCLUSION

- The purchase of an aftermarket asset with termination cost, or demolition cost, or cost of long-lasting conservation, or any other significant cost tied to the asset end of life, represents a special case for group of methods of dynamic valuation. The case under discussion is very typical for water transportation business units.
- The complex financial behavior of aftermarket asset may result in a peak present worth under certain conditions, so that a deterioration in the capital turnover may occur at both low and high rate of return





# CONCLUSION

- When acquiring aftermarket asset, the relationship between age, expected worth, worth dynamics, and company rate of return should be carefully inspected. The decline of annual worth is critical. Taking into account asset depreciation and growth of expenses for repair and dead time compensation, the annual worth may fall up to 5% per year, even for long life assets. Reliable information about annual worth trend is mostly unavailable until the asset is purchased.
- An unusual financial behavior of asset may appear even in case of a principally unprofitable asset. If present worth is negative at interest rate of 0%, it may still become positive at positive interest rate, likely from narrow range.

