

# Developing Benchmarks for ÁKK in Hungary

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# Introduction

- ÁKK is the short name for the Government Debt Management Agency in Hungary
- ÁKK is responsible for the management of the debt of the central government
- This debt amounts to appr. 60% of the Hungarian GDP
- 37% of the debt is foreign currency debt

# Functions of the Benchmark

Balancing the conflicting demands of cost reduction and the risk to the taxpayer in cash flow terms creates a natural need to establish benchmarks for liability management. Its functions include:

- Incorporation of strategic objectives
- Limitation of risk
- Measurement of performance

# Principles for the Benchmark

- **Robustness**: as little as possible reliance on assumptions about the future economic and financial environment
- **Long horizon**: the benchmark should be extended over the lifetime of the debt
- **Efficiency**: the benchmark should provide the lowest cost for the chosen level of risk
- **Transparency**: the benchmark must be simple, transparent and achievable

# Principles for the Benchmark (continued)

- **Feasibility**: the benchmark must be feasible
  - in the domestic market government securities serve as benchmarks (for other issuers and investors)
  - public debt managers have a kind of public duty to assist the development of domestic market

# Principles for the Benchmark (continued)

- - debt managers have monopolistic position, regulate the market, i.e. determine the interest rate structure and the maturity of future offerings, which are scheduled according to an offering calendar

# Constraints for the Benchmark

- Hungary doesn't have a well developed domestic capital market yet.
- Lack of currency flows and compatibility between the domestic and the fx-markets
- Short duration of the domestic portfolio
- Separate asset and liability management
- Budgetary constraints (Debt/GDP; deficit/GDP)

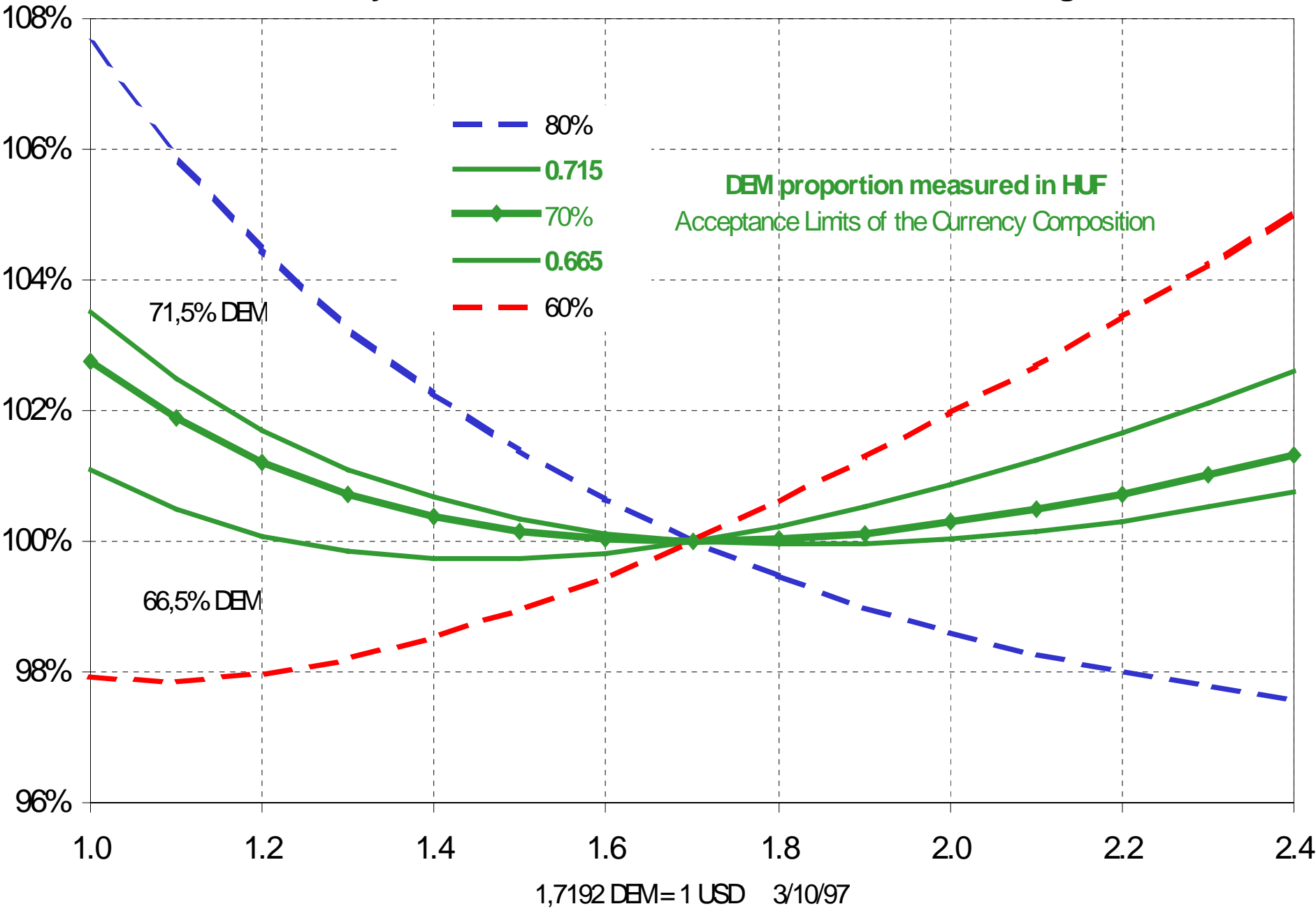
# Description of the External Debt Portfolio

- Public debt managed by ÁKK is appr. 60% of GDP, out of the total 37% is foreign currency debt
- Wide currency distribution (USD, DEM, JPY, CHF, ATS, NLG, GBP)
- Relatively smooth maturity profile
- No short term debt
- Overweight of fixed rate instruments

# The Currency Benchmark

- Foreign currency debt means currency risk
- Performance is measured in HUF
- Creation of an artificial HUF-debt i.e. transformation of the original currency mix according to the HUF-basket using the international swap markets.
- The main objective is to avoid the revaluation of the debt due to cross currency movements

# Sensitivity of the Benchmark Portfolio vs USD / DEM Exchange Rate



# Changes in the Currency Basket

- From January 1, 2000 the HUF will be pegged to a basket consisting of 100% Euro
- Adjustment of the currency mix by forward starting currency swaps with averaging exchange rates
- Active management is facilitated by the possibility to divert by 5% from the benchmark
- Define open position

# Interest Rate Benchmark I.

- Current interest rate structure of the external debt: 92% fixed, 8% floating
- Floating rate debt means lower cost but also higher risk for the budget
- Definition of risk and cost needed

# Risks

- possible overshoot of the interest expenditure of the yearly budget (Cash-flow at Risk)
- increase of the value of the portfolio above a certain level (Value at Risk)
- There is a trade-off between the CFaR and the VaR

# Creating the Benchmark

- The preference (M) between CFaR and VaR is instrumental in determining the optimal fix and floating mix
- the optimal fix/floating mix ( $f$ ) will be created using the formula:

$$f = M / (M + D')$$
$$D' = D * v$$

where  $D$  = the duration of the portfolio

$v$  = the relative volatility of the Euro yield-curve