

Are Small Savers Suckers? Salvaging the Savings of the Poor in Unstable Environments

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Purpose

Protecting a client's savings
from a local currency meltdown

Case I – Commercial Ex-ante Hedging
through Insurance

Case II – Charitable Ex-post Topping Up
Deposit Savings



Historic Returns to Savings (1)

- Time frame: up to 3 decades
- Location: 28 countries (Africa, Asia, LAC)
- Definition: inflation-adjusted (CPI) bank deposit rate
- Source: IMF International Financial Statistics

Historic Returns to Savings (2)

Investment returns using inflation-adjusted bank deposit rates (left scale ■)

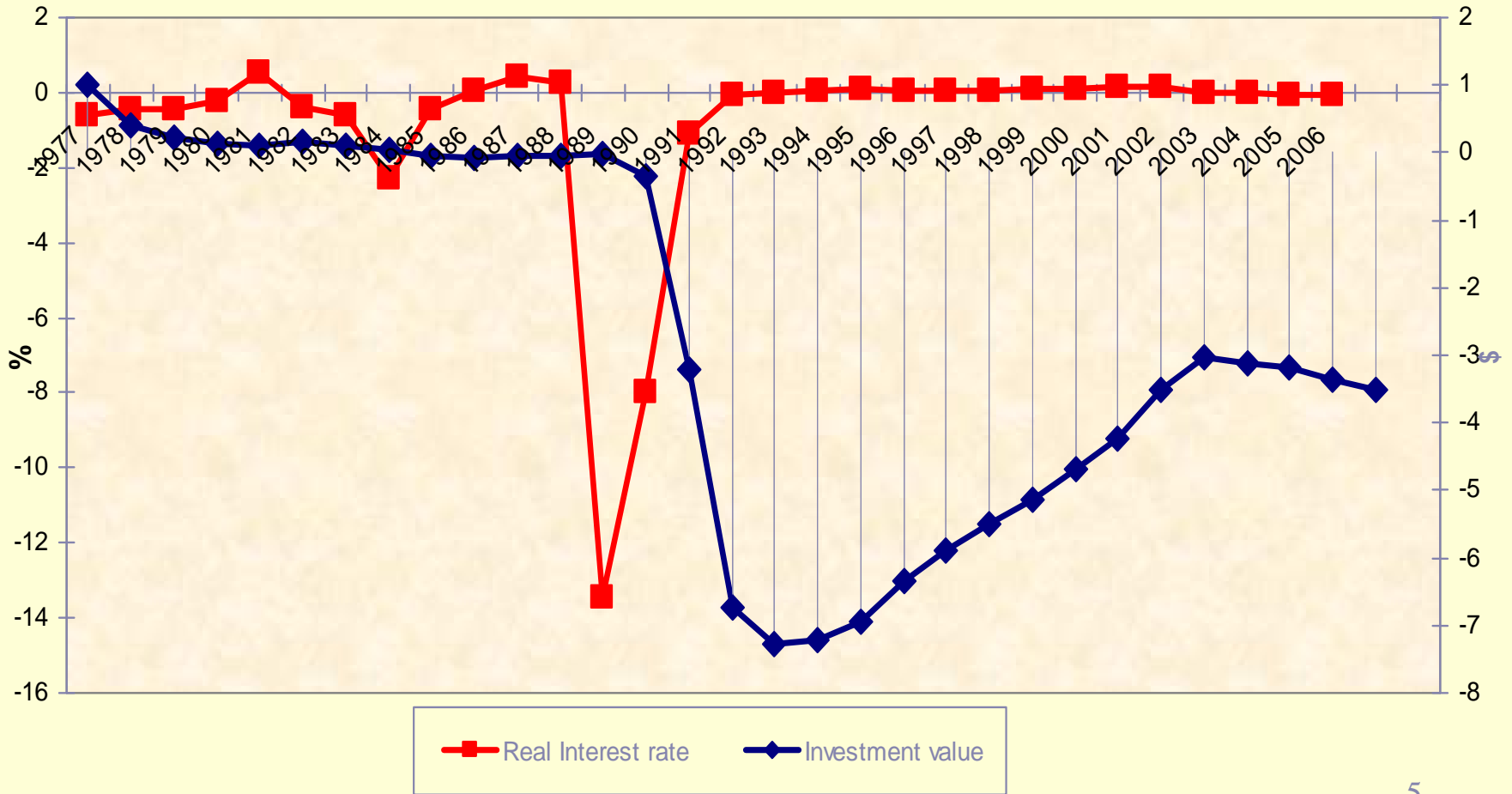
Investment value: saver's position traced from start of series (\$1 at right ◆)

Real rate: inflation-adjusted interest rate

$$r_{real} = \frac{(1+r_{nom})}{(1+\Delta CPI)} - 1$$

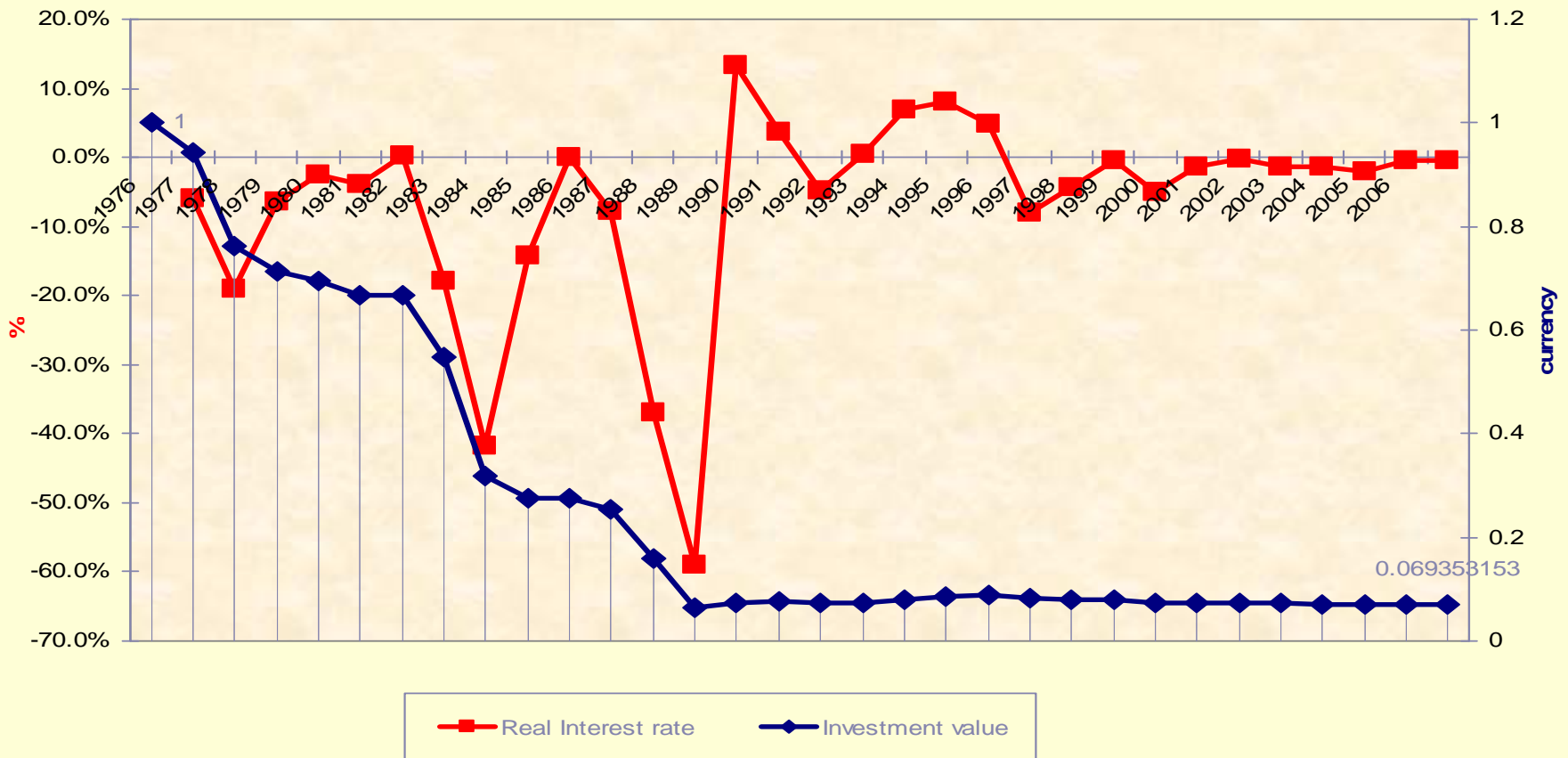
ARGENTINA 1 to 0.14

ARGENTINA - Real Interest Rates and Investment Value over Time



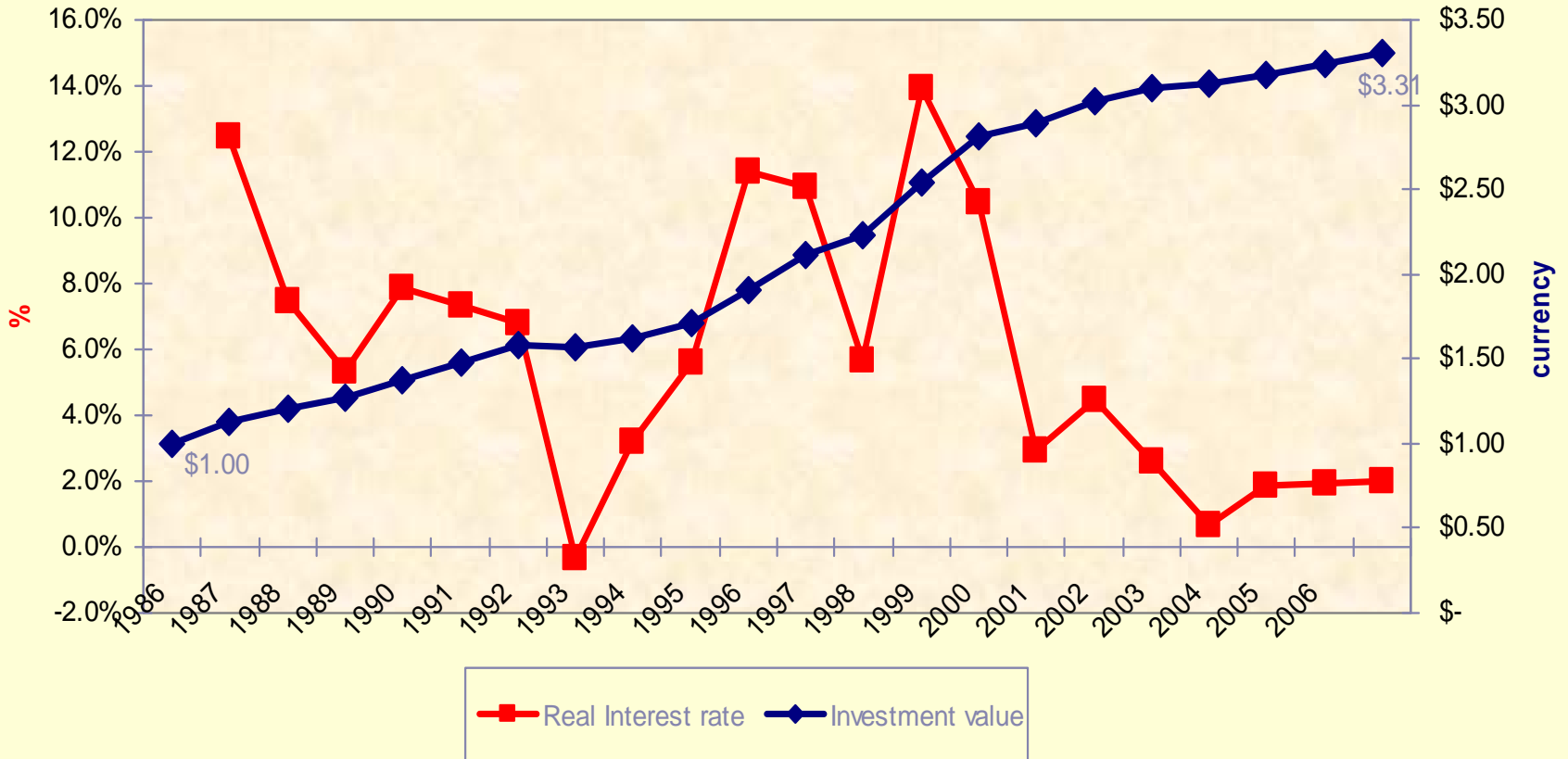
MEXICO 1 to 0.1

Mexico - Real Interest rates and Investment value over time



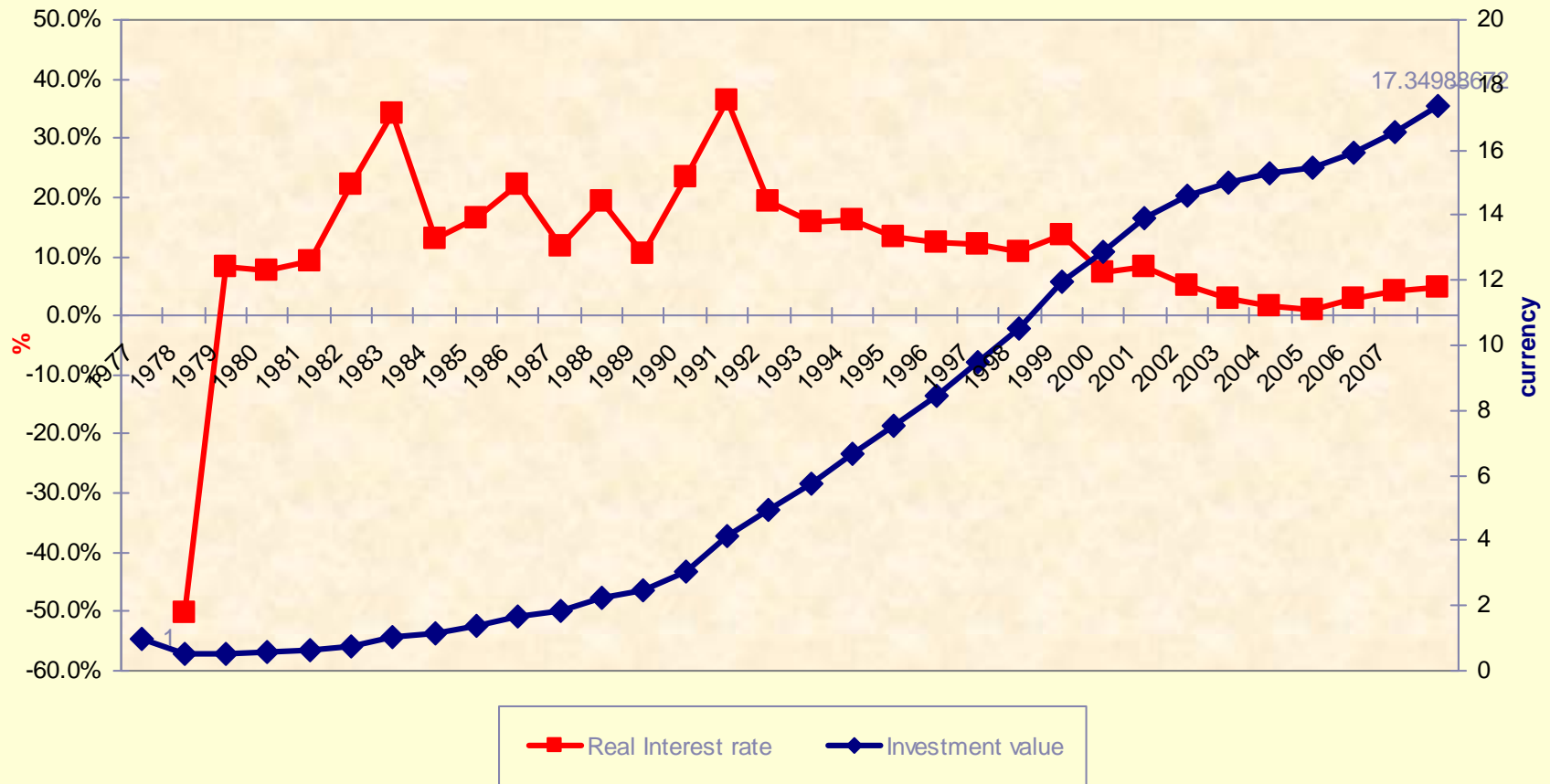
COLOMBIA 1 to 3.4

Colombia - Real Interest rates and Investment value over time

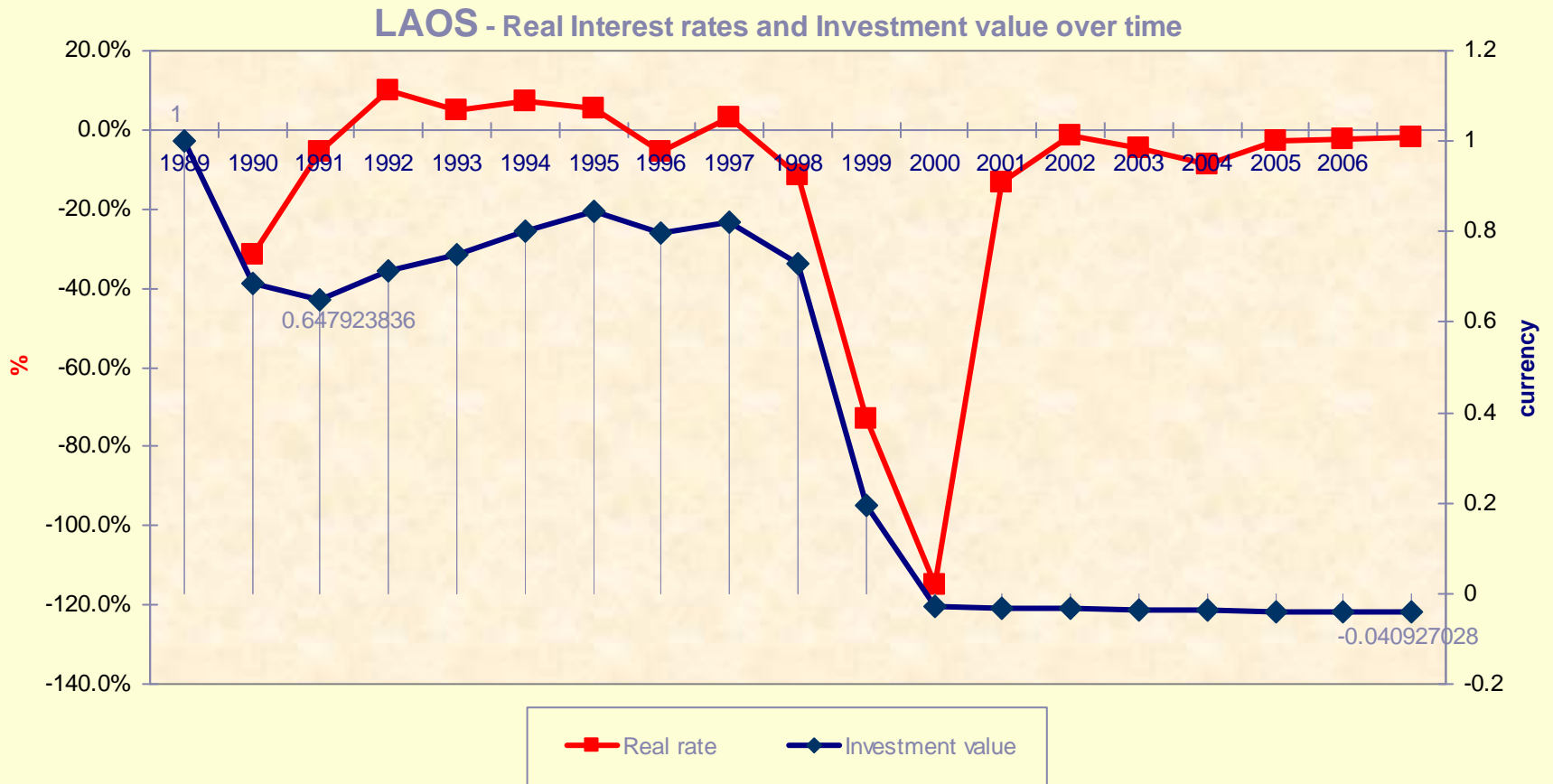


CHILE 1 to 17

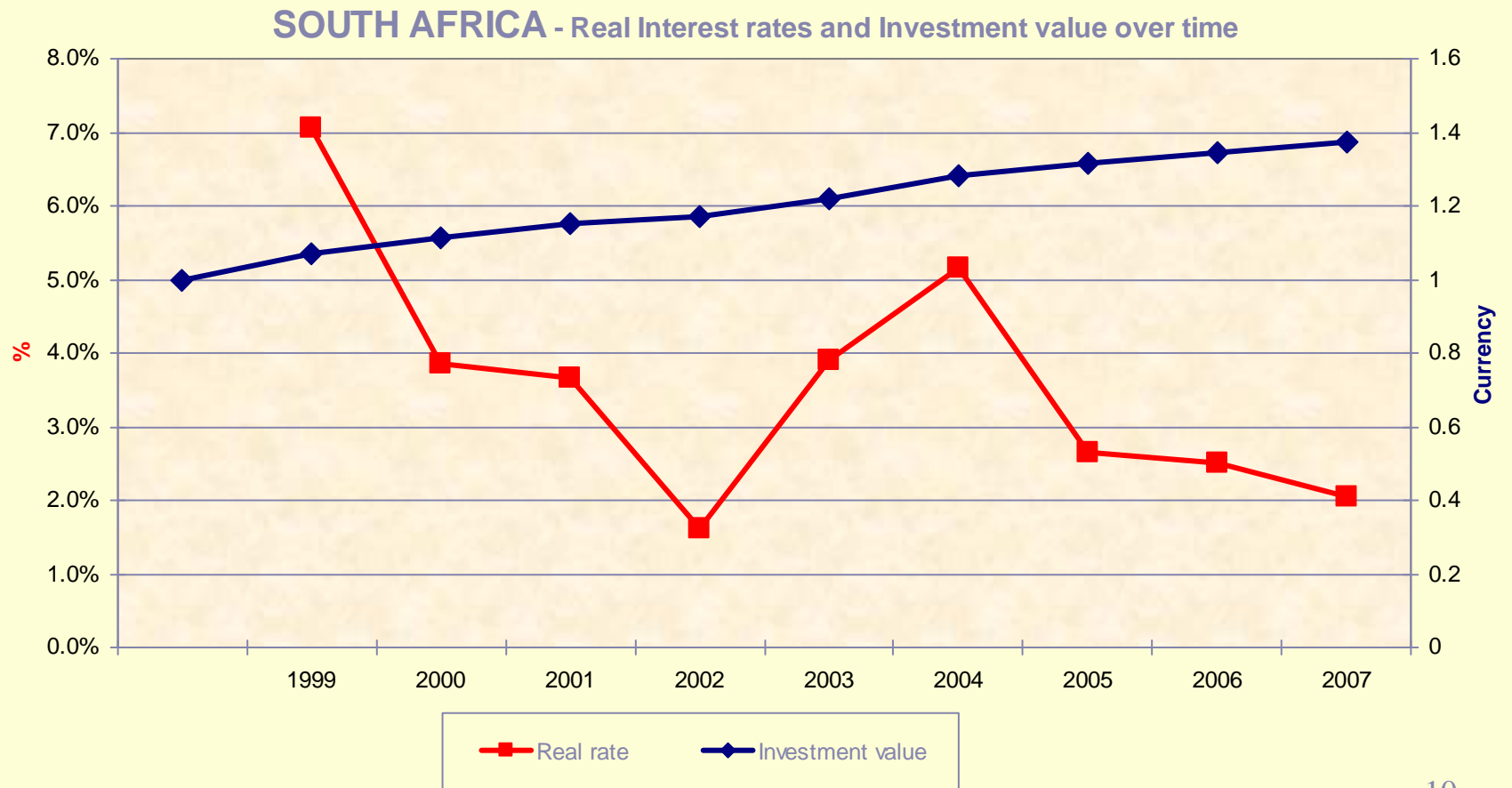
Chile - Real Interest rates and Investment value over time



LAOS 1 to 0

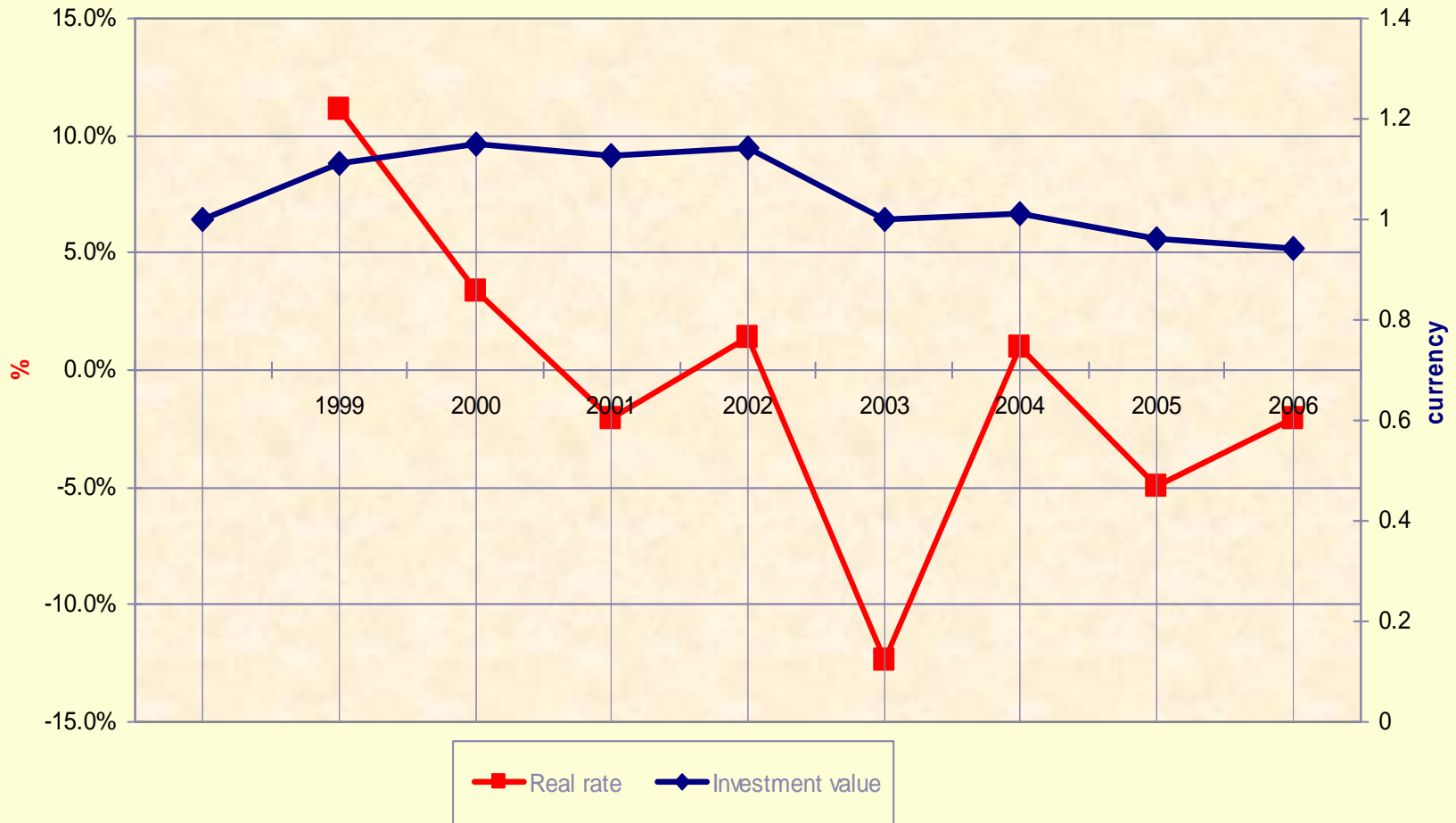


SOUTH AFRICA 1 to 1.4



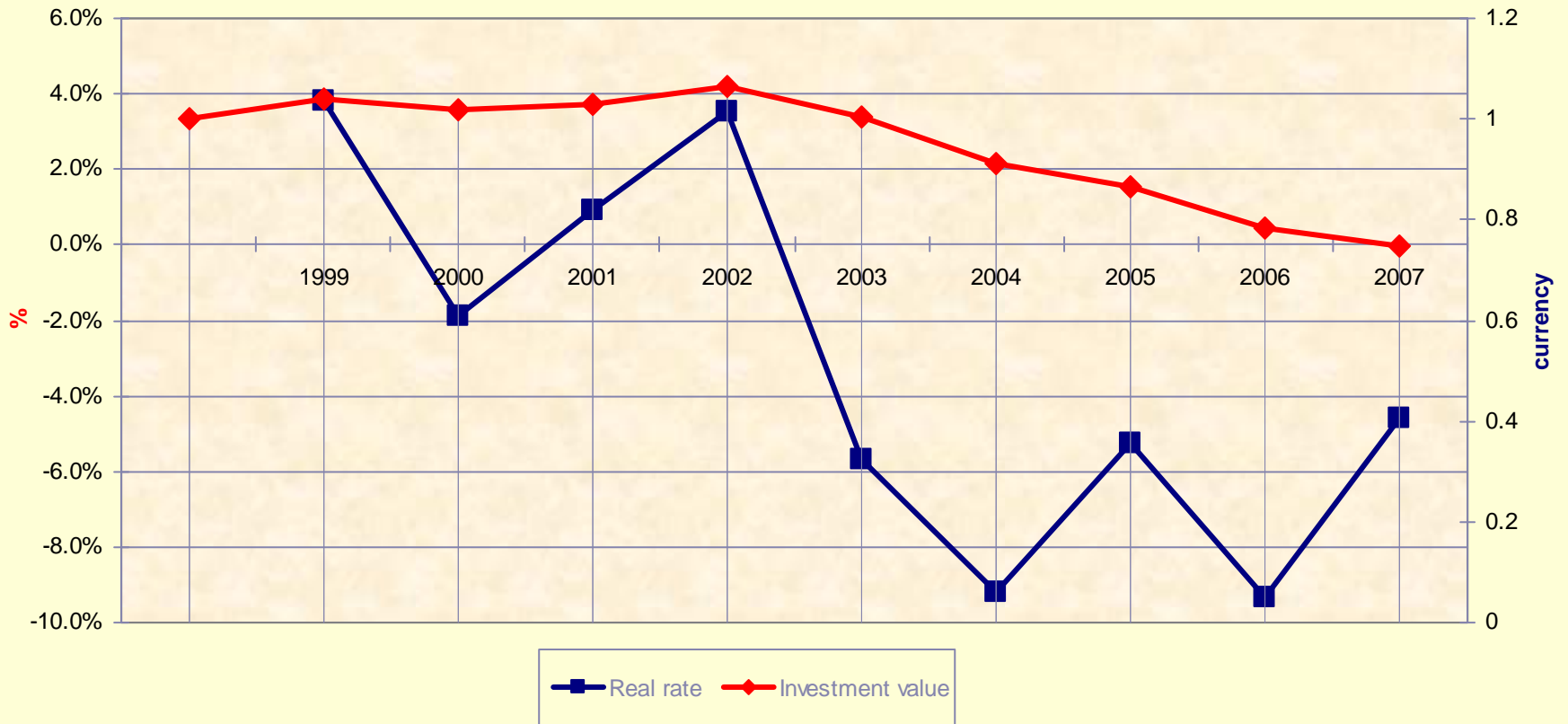
GHANA 1 to 0.95

GHANA - Real Interest rates and Investment value over time



KENYA 1 to 0.4

KENYA - Real Interest rates and Investment value over time






Case I

Ex-ante Hedging through Insurance

Economies of scale: Market responses
for the short and medium term for the
middle class and well-to-do




Long-term Financial Issues

Society's “conveniently large lump sum”
(Stuart Rutherford)

● Long-term savings

- support society's capital accumulation
- can address challenges low-income families face in accumulating assets
- produce private and social benefits
 - Private: security in old age, protection against catastrophic events, education expenses, intergenerational asset transfer
 - Social: lending and investment, institution building, infrastructure improvements



Long-term Financial Issues

- Long-term products face a variety of risks:
- On a macro level:
 - Hyperinflation and currency collapse
- On a micro level
 - Capital markets are inadequate for institutional investments
 - Asset default risk/interest rate risk
 - Inadequate reserves
 - Asset/Liability mismatches



Macroeconomic Risk

- Inflation wipes out a life's savings
(Argentina, Laos, Mexico as examples)
- Sharp devaluation increases inflationary pressure as prices of imports and services rise sharply.
- High deficits create lack of trust in a country's ability to service debt, leading to currency collapse



On a Micro Level...

- Risk is closely associated with risk management and financial market structure
- Inadequate/inefficient financial markets prevent accumulated capital from being invested in a desired time frame
- Matching durations off-shore are required



Pricing Risk/Product Design

- Interest rates reflect risk for long-term products
- Future claims have to be accurately discounted
- If the discount rate is too low present value of future costs/product becomes prohibitively high
- If discount rate is too high low PV of premiums is not viable if interest rate is not achieved
- If guaranteed payouts cannot be matched in the market, interest rate mismatch leads to significant asset/liability mismatches



Capital Requirements & Reserves

- Microinsurance providers offering long-term products must accrue sufficient capital to manage risks associated with their operations
- Actuarial modeling techniques should be used to calculate long-term capital requirements
- Microinsurance programs must maintain sufficient reserves, defined as the present value of future liabilities/obligations less the present value of future premiums



Asset Default Risk

- Asset default is linked to financial infrastructure and investment opportunities
- High risk = high return
- If investment is too safe
 - > erosion of portfolio
- If investment is too risky
 - > asset default becomes likely



Potential Resolution

Specialized Swap Counterparty (TCX) and Offshore Investment Vehicle

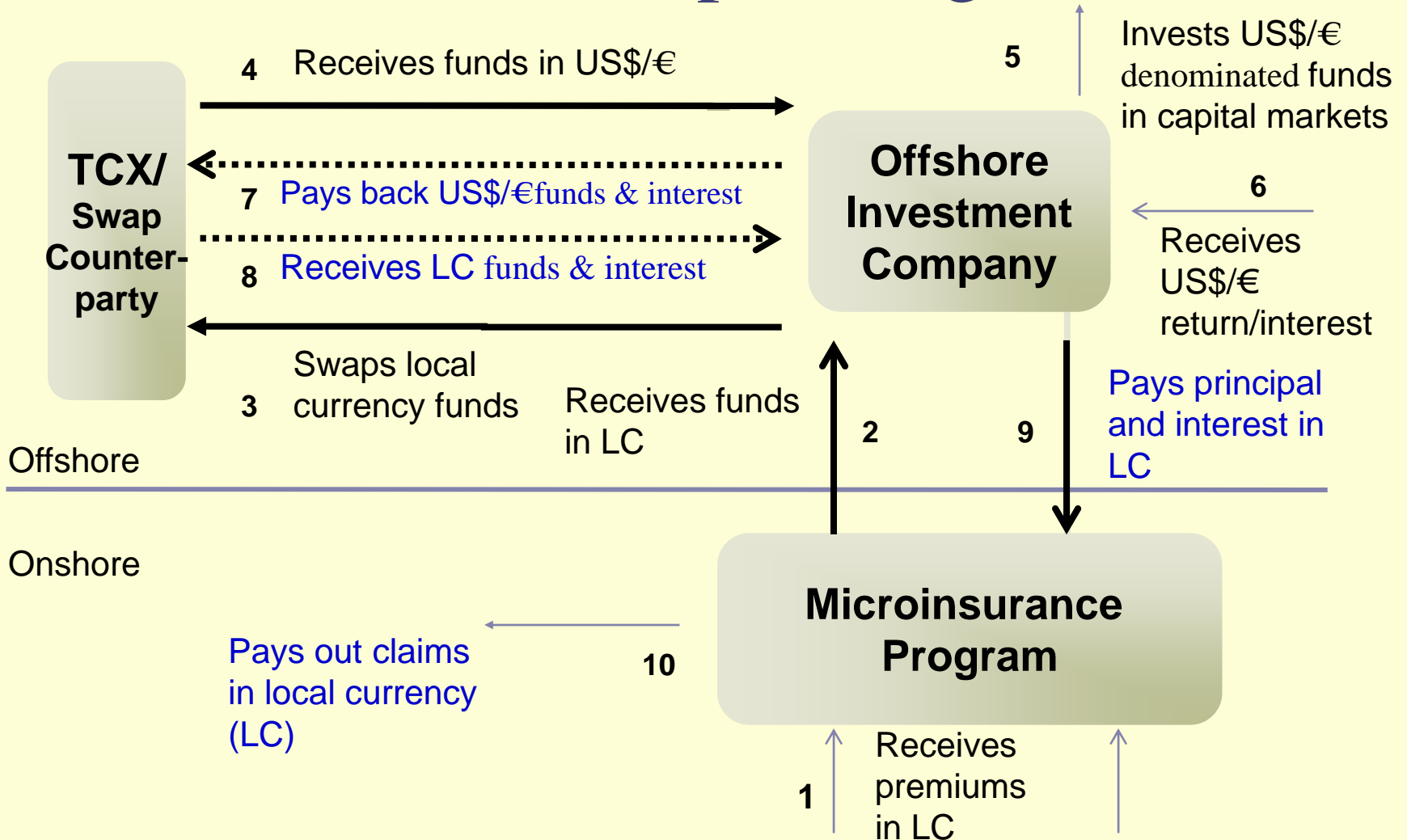
● Offshore Investment Vehicle

- Swaps the LC received
- Invests in foreign currency denominated instruments
- Generates returns in hard currency
- Matches duration using instruments not available in domestic markets

● The Currency Exchange Fund (TCX)

- The Currency Exchange Fund is a special purpose fund launched by several development finance institutions to hedge currencies and maturities not widely traded, if at all, by regular market participants

Innovative Swap through TCX





Case II


Ex-post Topping Up Deposit Savings

Donor-driven participatory savings
for the poor and not-so-poor
after a local currency meltdown
(Is this a useful actuarial exercise?)



Objective

- Protection against “catastrophic” loss of local currency (LC) value
 - Partial top up following LC meltdown
 - Withdrawals after a “long” holding period
 - Payouts could create a slightly more nearly equal distribution of wealth in society




Structure for Savings Protection (1)

- Country-specific, fitting local conditions
- Driven by donor funds – the “top up”
- Based partly on depositors’ contributions
- Limited sums covered – caps required given the unknown scale of possible losses



Structure of Savings Protection (2)

- Top up based on trigger points
 - Loss of LC value
 - At will by saver beyond maturity
 - Saver's choice of currency when top up received
- No restrictions on early withdrawals
 - Deposits returned on demand
 - At par with interest, small fee only



Structure of Savings Protection (3)

- Collected in tranches, e.g., 3-years or longer maturity beyond insurable horizon
 - No top ups until maturity
 - Averts “piling in” when early crisis starts
- No final maturity after trigger date
 - Perpetual compounding in local currency




Institutional Issues -- Eligibility

- Eligibility criteria for retail clients
 - Interest bearing account with a participating savings institution
- Verification of identity?
- Excluding the rich?
 - Geographic segregation – area of residence?
 - Tax records?
 - Targeting group-based membership institutions?




Institutional Issues – Distribution

- Local participating savings intermediary must
 - Be a licensed financial institution
 - Meet prudential standards
 - Be subject to independent audit



Institutional Issues – Control (1)

- Funding and administration
 - Top ups held off-shore
 - Operations center in a financially safe country
 - Covers up to a cap
- Start-up funding for top up
 - Central bank gold reserves
 - Foundations
 - Donors – international and bilateral



Institutional Issues – Control (2)

- Oversight Committee – World Bank, etc
- Governing Board –
 - Composition to be determined, but
 - No beneficiary countries may be represented
 - 7-year observer seat for the US :- (