

## 2- EXCHANGE RATE REGIMES

### Classification of Exchange Rate Arrangements and Monetary Frameworks

<http://www.imf.org/external/np/mfd/er/index.asp>

This classification system is based on members' actual, de facto, arrangements as identified by IMF staff, which may differ from their officially announced arrangements. The scheme ranks exchange rate arrangements on the basis of their degree of flexibility and the existence of formal or informal commitments to exchange rate paths. It distinguishes among different forms of exchange rate regimes, in addition to arrangements with no separate legal tender, to help assess the implications of the choice of exchange rate arrangement for the degree of monetary policy independence. The system presents members' exchange rate regimes against alternative monetary policy frameworks with the intention of using both criteria as a way of providing greater transparency in the classification scheme and to illustrate that different exchange rate regimes can be consistent with similar monetary policy frameworks. The following explains the categories.

#### Exchange Rate Regimes

##### *Exchange Arrangements with No Separate Legal Tender*

The currency of another country circulates as the sole legal tender (formal dollarization), or the member belongs to a monetary or currency union in which the same legal tender is shared by the members of the union. Adopting such regimes implies the complete surrender of the monetary authorities' independent control over domestic monetary policy.

##### *Currency Board Arrangements*

A monetary regime based on an explicit legislative commitment to exchange domestic currency for a specified foreign currency at a fixed exchange rate, combined with restrictions on the issuing authority to ensure the fulfillment of its legal obligation. This implies that domestic currency will be issued only against foreign exchange and that it remains fully backed by foreign assets, eliminating traditional central bank functions, such as monetary control and lender-of-last-resort, and leaving little scope for discretionary monetary policy. Some flexibility may still be afforded, depending on how strict the banking rules of the currency board arrangement are.

##### *Other Conventional Fixed Peg Arrangements*

The country (formally or de facto) pegs its currency at a fixed rate to another currency or a basket of currencies, where the basket is formed from the currencies of major trading or financial partners and weights reflect the geographical distribution of trade, services, or capital flows. The currency composites can also be standardized, as in the case of the SDR. There is no commitment to keep the parity irrevocably. The exchange rate may fluctuate within narrow margins of less than  $\pm 1$  percent around a central rate-or the maximum and minimum value of the exchange rate may remain within a narrow margin of 2 percent-for at least three months. The monetary authority stands ready to maintain the fixed parity through direct intervention (i.e., via sale/purchase of foreign exchange in the market) or indirect intervention (e.g., via aggressive use of interest rate policy, imposition of foreign exchange regulations, exercise of moral suasion that constrains foreign exchange activity, or through intervention by other public institutions). Flexibility of monetary policy, though limited, is greater than in the case of exchange arrangements with no separate legal tender and currency boards because traditional central banking functions are still possible, and the monetary authority can adjust the level of the exchange rate, although relatively infrequently.

### *Pegged Exchange Rates within Horizontal Bands*

The value of the currency is maintained within certain margins of fluctuation of at least  $\pm 1$  percent around a fixed central rate or the margin between the maximum and minimum value of the exchange rate exceeds 2 percent. It also includes arrangements of countries in the exchange rate mechanism (ERM) of the European Monetary System (EMS) that was replaced with the ERM II on January 1, 1999. There is a limited degree of monetary policy discretion, depending on the band width.

### *Crawling Pegs*

The currency is adjusted periodically in small amounts at a fixed rate or in response to changes in selective quantitative indicators, such as past inflation differentials vis-à-vis major trading partners, differentials between the inflation target and expected inflation in major trading partners, and so forth. The rate of crawl can be set to generate inflation-adjusted changes in the exchange rate (backward looking), or set at a preannounced fixed rate and/or below the projected inflation differentials (forward looking). Maintaining a crawling peg imposes constraints on monetary policy in a manner similar to a fixed peg system.

### *Exchange Rates within Crawling Bands*

The currency is maintained within certain fluctuation margins of at least  $\pm 1$  percent around a central rate-or the margin between the maximum and minimum value of the exchange rate exceeds 2 percent-and the central rate or margins are adjusted periodically at a fixed rate or in response to changes in selective quantitative indicators. The degree of exchange rate flexibility is a function of the band width. Bands are either symmetric around a crawling central parity or widen gradually with an asymmetric choice of the crawl of upper and lower bands (in the latter case, there may be no preannounced central rate). The commitment to maintain the exchange rate within the band imposes constraints on monetary policy, with the degree of policy independence being a function of the band width.

### *Managed Floating with No Predetermined Path for the Exchange Rate*

The monetary authority attempts to influence the exchange rate without having a specific exchange rate path or target. Indicators for managing the rate are broadly judgmental (e.g., balance of payments position, international reserves, parallel market developments), and adjustments may not be automatic. Intervention may be direct or indirect.

### *Independently Floating*

The exchange rate is market-determined, with any official foreign exchange market intervention aimed at moderating the rate of change and preventing undue fluctuations in the exchange rate, rather than at establishing a level for it.

## **Monetary Policy Framework**

The exchange rate regimes are presented alongside monetary policy frameworks in order to present the role of the exchange rate in broad economic policy and help identify potential sources of inconsistency in the monetary-exchange rate policy mix.

### *Exchange Rate Anchor*

The monetary authority stands ready to buy/sell foreign exchange at given quoted rates to maintain the exchange rate at its pre-announced level or range; the exchange rate serves as the nominal anchor or intermediate target of monetary policy. This type of regime covers exchange rate regimes with no separate legal tender; currency board arrangements; fixed pegs with and without bands; and crawling pegs with and without bands.

### *Monetary Aggregate Anchor*

The monetary authority uses its instruments to achieve a target growth rate for a monetary aggregate, such as reserve money, M1, or M2, and the targeted aggregate becomes the nominal anchor or intermediate target of monetary policy.

### *Inflation Targeting Framework*

This involves the public announcement of medium-term numerical targets for inflation with an institutional commitment by the monetary authority to achieve these targets. Additional key features include increased communication with the public and the markets about the plans and objectives of monetary policymakers and increased accountability of the central bank for attaining its inflation objectives. Monetary policy decisions are guided by the deviation of forecasts of future inflation from the announced target, with the inflation forecast acting (implicitly or explicitly) as the intermediate target of monetary policy.

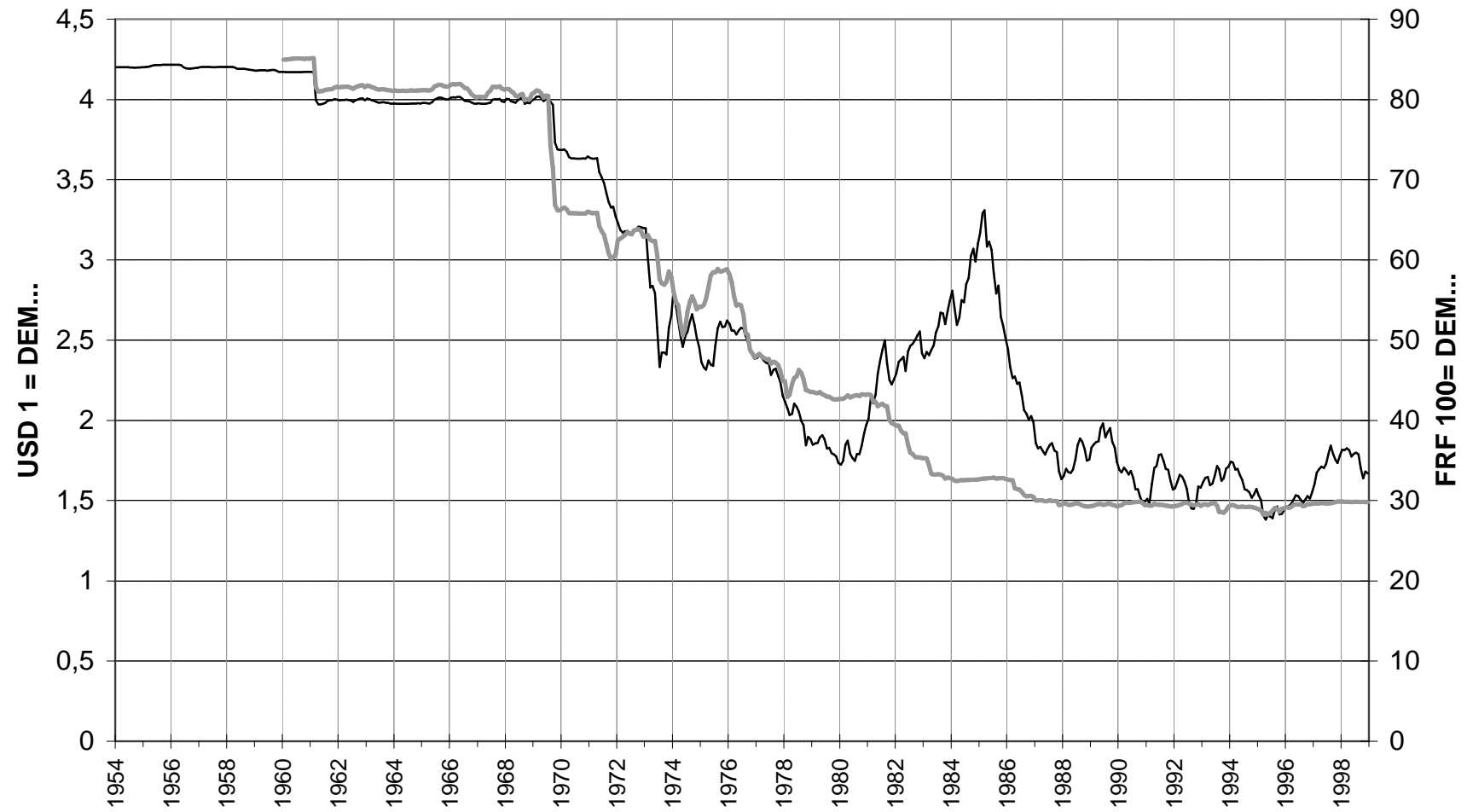
### *Fund-Supported or Other Monetary Program*

This involves implementation of monetary and exchange rate policies within the confines of a framework that establishes floors for international reserves and ceilings for net domestic assets of the central bank. Indicative targets for reserve money may be appended to this system.

### *Other*

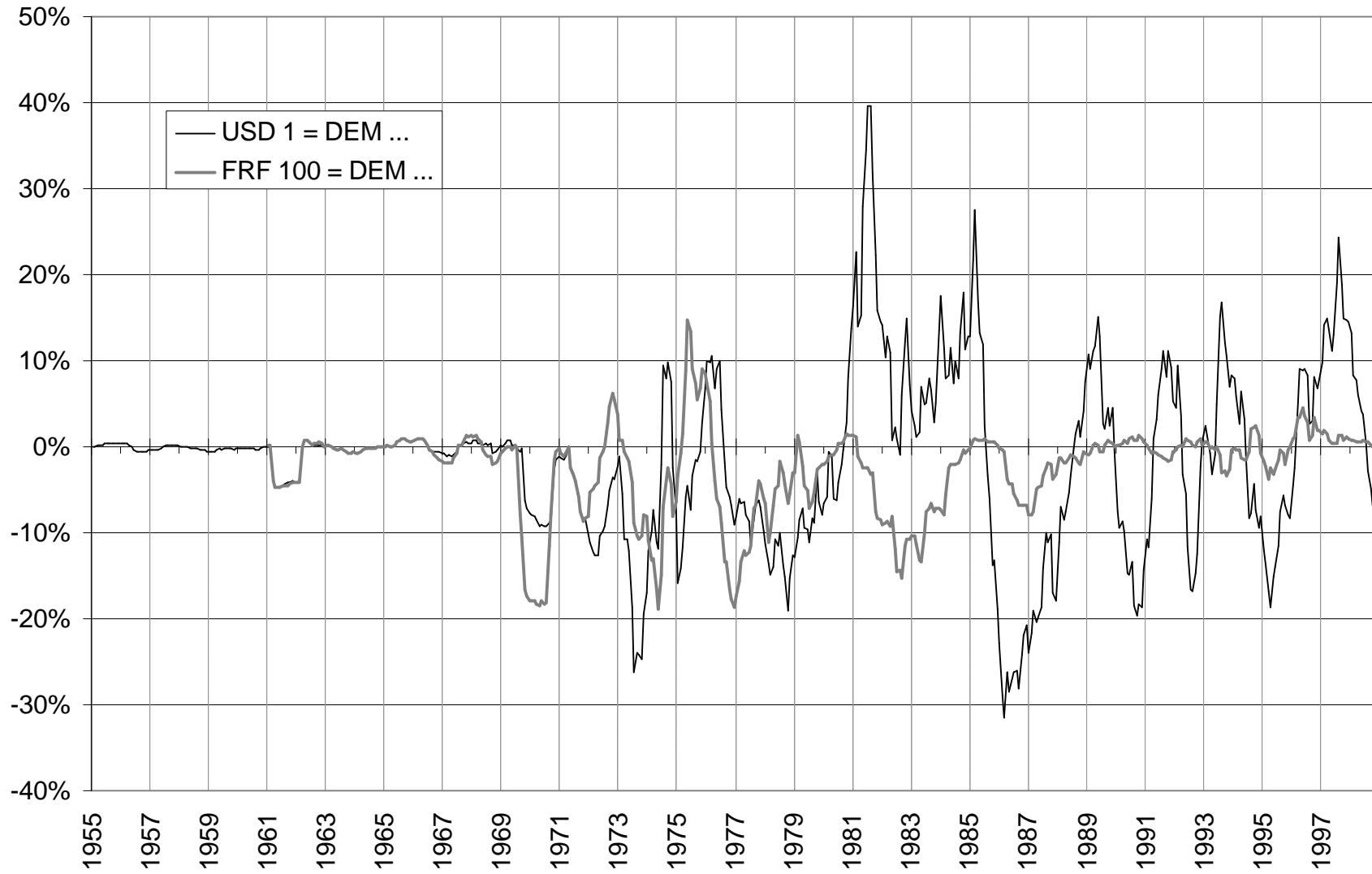
The country has no explicitly stated nominal anchor but rather monitors various indicators in conducting monetary policy, or there is no relevant information available for the country.

# The exchange rate of the Deutschemark against the US dollar and the French Franc – 1954 - 1998

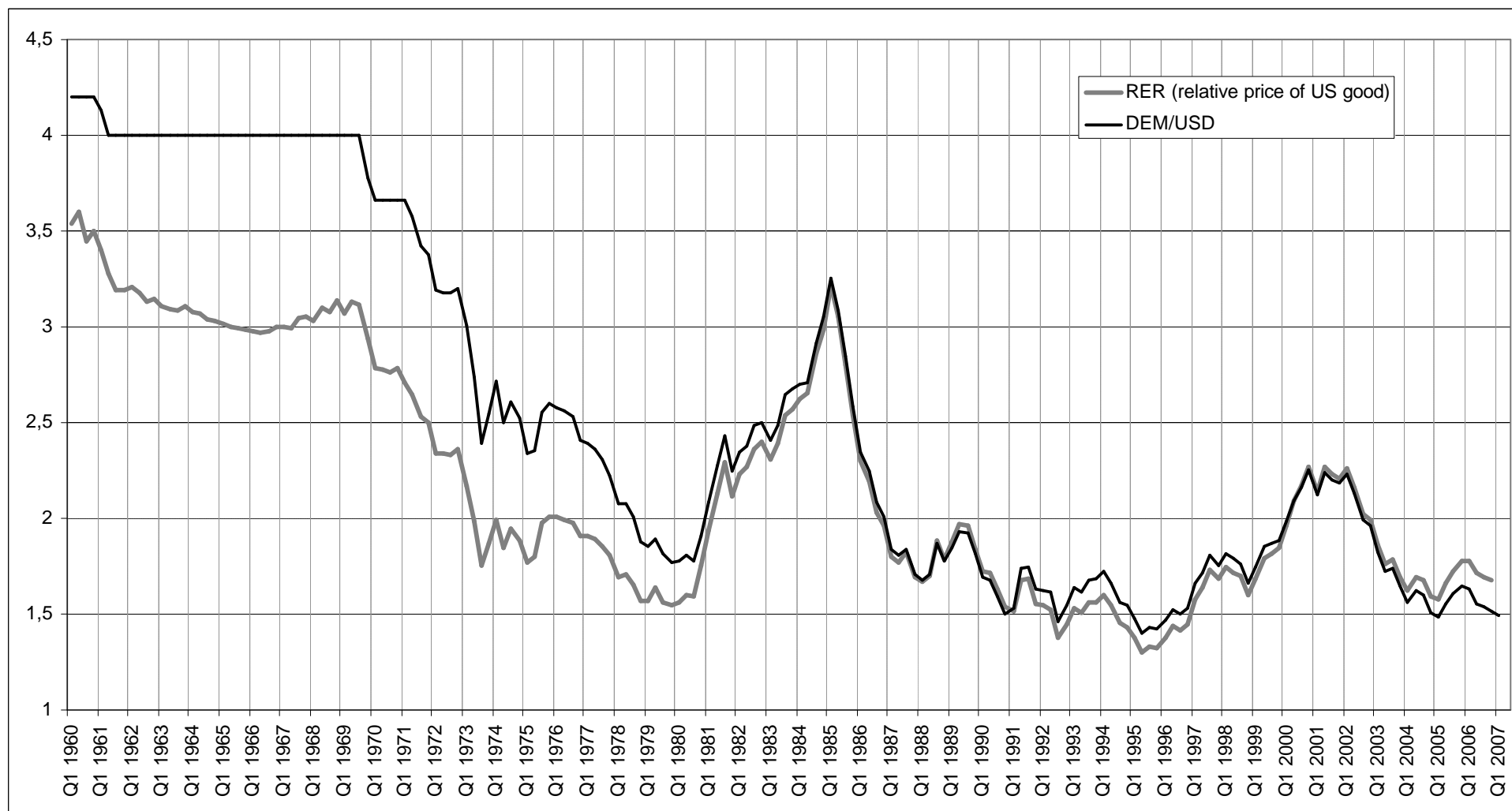


source : Bundesbank (Exchange rates on the Frankfurt exchange)

# The annual rate of appreciation of the Deutschemark against the US dollar and the French Franc – 1954 – 1998



## Nominal and real exchange rates: the US Dollar and the Deutsche Mark (Euro after 1999)

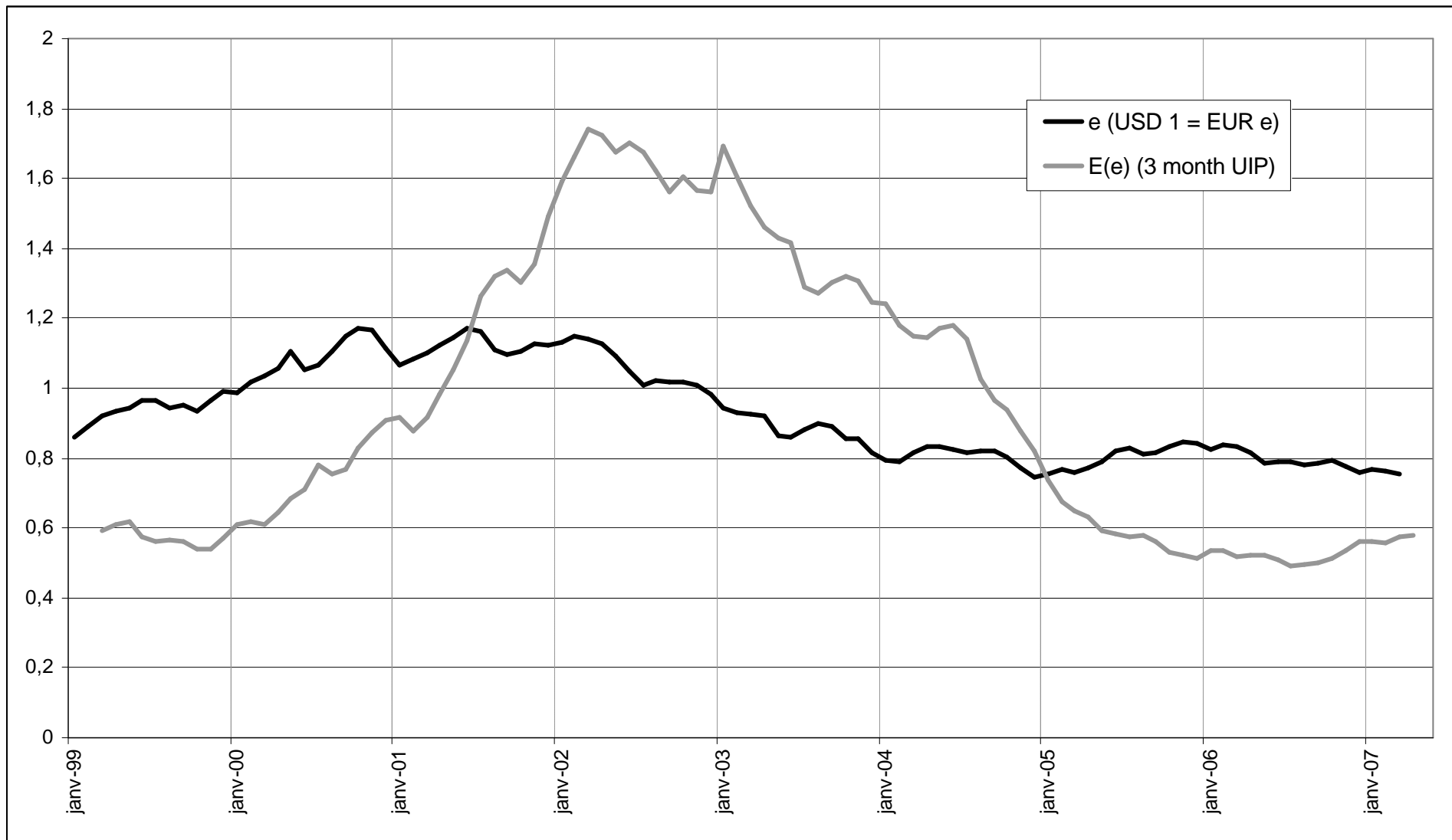


source : IMF

Real Exchange Rate computed using GDP deflator, 2000=100.

Nominal Exchange Rate: DEM / USD (1960-1998), 1,95583 \* EUR / USD (1999-2007)

### Uncovered Interest Parity: expected EUR/USD exchange rate



USD 1 = EUR e and  $E(e) = e (1 + r_s)/(1 + r_e)$  where interest rates are three-month LIBOR.