

MONEY DEMAND FUNCTION

Money demand function is an expression to explain fundamental tenets of holding desired level of money and trade-offs between other interest bearing assets. Theory postulates that if money demand is stable then Monetary Policy Authority (MPA) may use this fact to stabilize money market disequilibrium since, stability of money demand equation is a necessary condition of successful money targeting regime. If the money demand is unstable and unpredictable then MPA will struggle to establish equilibrium in the money market via targeting money supply. By comparing the actual money stock with its long run equilibrium according to money demand, measures of excess liquidity are derived and are used to assess risks to future price stability. For monitoring the inflation process, a stable money demand function is extremely important, at least as a long run reference.

Conventional view on role of money is that, money is used for medium of exchange, store of value and speculative motives. In generic specification of real money balances is a function of scale variable (measure of transactions) and opportunity cost of holding money (attributed as the foregone earnings by not holding assets which are alternatives money). From a theoretical perspective, the concept of money demand is crucial for an appropriate interpretation of the monetary conditions in an economy. The money demand function links the monetary development to its fundamental determinants, such as the price level, real income and the opportunity costs of holding money (such as interest bearing assets).

In generic specification real money balances is a function of measure of transactions and opportunity cost of holding money, ascribed as yields on alternative assets in portfolio of representative agent. In order to not loose generality we start with general specification of money demand in a following way:

$$(m - p)_t = \delta_0 + \delta_1 y_t + \delta_2 w_t + \delta_3 i_t + \delta_4 \pi_t + \delta_5 e_t + \varepsilon_t$$

here m_t denotes nominal money balances taken in logs, p_t is the log of the price level, y_t is log of real income, representing the transaction volume in the economy, and w_t is log of real financial wealth. Opportunity costs of holding money are proxied by nominal

variables such as, i_t interest rate, log of nominal bilateral exchange rate to USD, i.e. e_t , and the annualized inflation rate, π_t . The latter one is expected to capture expected nominal rate of return on physical assets. The opportunity cost of holding money is the difference between the rate of return on assets alternative to money and the own rate on money. Since, own yield of money holdings is close to zero (cite), we may consider only opportunity cost variables in the equation. Analysis carried on quarterly basis. ε_t denotes error term and the index t denotes time.

Real income is expected to have positive impact on real money balances. Since, the money is a part agents' assets portfolio, yields on alternative assets, such as return on physical return, bonds and etc., are expected to exert negative impact on real money balances. In turn expected signs of the variables are as follows:

$$\delta_1 > 0, \delta_2 > 0, \delta_3 < 0, \delta_4 < 0, \delta_5 < 0$$

Throughout the empirical literature Error-Correction Mechanism (hereafter, ECM) became conventional tool to analyze money demand function. Since, there is no consensus on the proper specification of money demand in oil exporting countries, we will assume no *a priori* (strong) theoretical specification of the money demand equation. inclusion - exclusion principle will be the main tenet of our empirical strategy on choosing best model specification.