

(2011-1970) :

2 1

2011-1970

(2011-1970)

)

(

2011

1970

\_\_\_\_\_ 1

✉ moussaoui\_economie@yahoo.fr

\_\_\_\_\_ 2

✉ zirar\_somaya@yahoo.fr

.2013/5/29

2013/1/28

(M<sub>1</sub>)

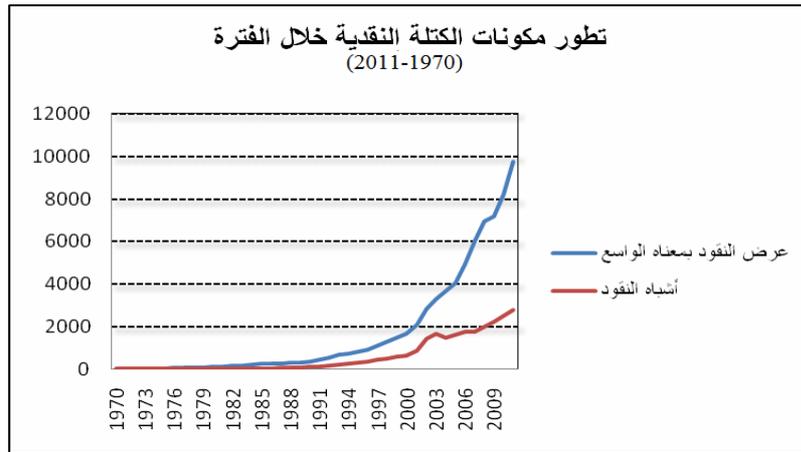
(2004 ) .

(M2)

M<sub>1</sub>

(M<sub>3</sub>)

M<sub>2</sub>



(2011-1970)

:(1)

.2012

1972

1971

30.3

1986

5.2 1989

155.7

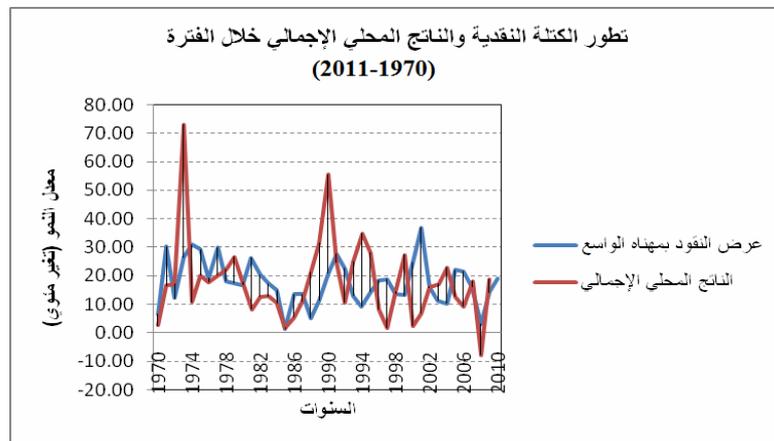
315.2

( )

1979 1974

(1977-1974)

16% 23.27% 11.4  
 1983 1982 1990  
 8.37% 1984  
 22.66%  
 30.61% 10.86% 2005 1998  
 :  
 07 2001  
 2003 2001  
 2011 2004 (2008) 2004  
 (1)  
 1976  
 43% 28.45%  
 50% 1981  
 (2)



(2011-1970) : (2)

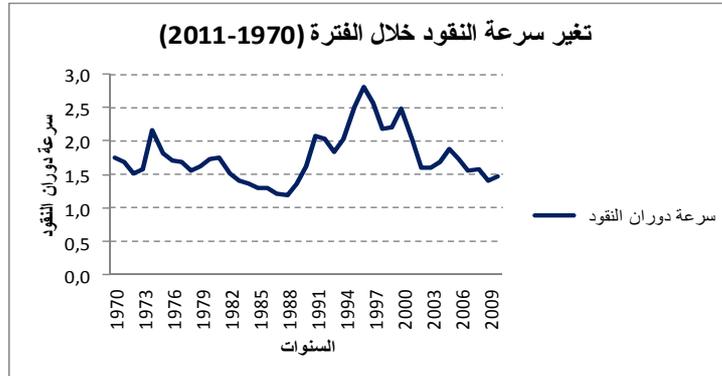
:  
 2012

(3)

(1973-1970) -1975)

(1990

(2011-2002)



(2011-1970)

:(3)

.2012

1974-1973

%26.6

%73.1

) 1975

1974

(2.3

%10.8

%31

(2005 )

1977

% 1.1

(%19.2)

1980 1979 1978

(%17.8)

1981

(1 =

(0.9)

(%16.7)

1982

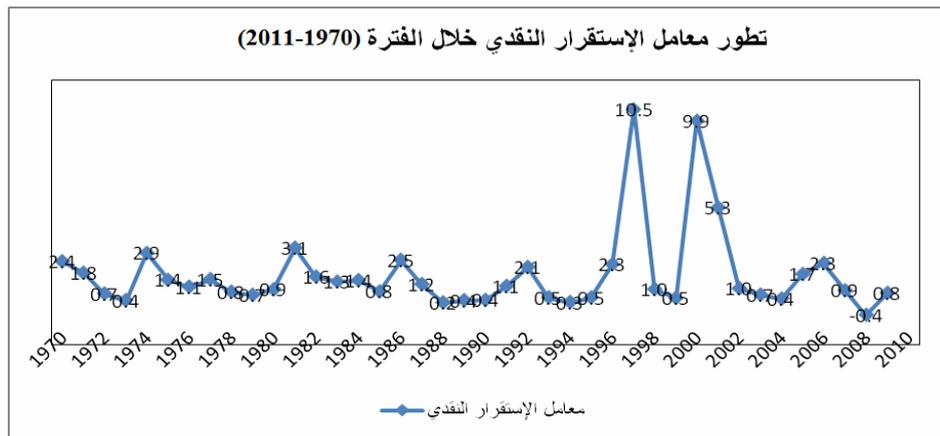
(%18.7)

(Bellal, 2010)

(%8.4)

1972-1970

1997 (%8.2) (%1.8) (%26.3)  
 1999 .  
 2000  
 (0.5) 1986  
 (%1.7)  
 2002 2001 1987 (%1.4)  
 (7.3) (7.1)  
 11 )  
 (1.1) 2003 ( (2.5)  
 0.2)  
 2005 2004 (1991 0.4 1989  
 (2011-2007) (%5.2) 1988 (%13.6)  
 1989  
 (Patricia ,Marston, 2011)  
 1992 (1.1 )  
 1993  
 (%24.7) (%10.7)  
 1998  
 (10.5)



(2011-1970)

:(4)

.2012

.(0.5-)

:

*Fisher*

(1956) *Friedman*

$MV = PT$

*Cambridge*

*M2*

:

$$M_t^d = f(r_m, r_b, r_e, P^e, h, Y_P) \quad (3)$$

*r*

*Y*

: *Keynes*

$$\frac{M^d}{P} = f(Y, r) \quad (1)$$

$r_b, r_e$  :

$r_e$

$P^e$

$Y_P$

$h$

(1956) *Tobin* (1952) *Baumol*

*Inventory Approach*

(2004) ) :

$$\frac{M_t^d}{P} = \frac{1}{2} \sqrt{\frac{2bY}{r}} = \frac{1}{2} \sqrt{2b}^{0.5} Y^{0.5} r^{-0.5} \quad (2)$$

:  $r$

$P$   
( $r_b, r_e$ )

$\frac{M_t^d}{P_b}$  :

$$\frac{M_t^d}{P} = f(r, Y_P, P^e) \quad (4)$$

(2)



(stationary)  
(level)

$$\frac{M_2}{P} = f(r, yr, ex, Inf, D) \quad (9)$$

(FM-OLS)

$$\frac{M_2}{P} = A'(Yr)^{\beta_1}(r)^{\beta_2}(ex)^{\beta_3}(Inf)^{\beta_4}e^{\beta_5 D}e^{U_t} \quad (10)$$

ADP

$$\ln\left(\frac{M_2}{P}\right)_t = \beta_0 + \beta_1 \ln Yr_t + \beta_2 \ln r_t + \beta_3 \ln ex_t + \beta_4 \ln Inf_t + \beta_5 D + U_t \quad (11)$$

(Unit Root test) : (1)

	ADF		P.P	
<i>Lnex</i>	***-4.1064	-0.4182	***-5.4546	-0.4035
<i>Lnr</i>	** -3.1717	-1.5688	***-3.6824	-1.3769
<i>lnYr</i>	***-3.9017	-1.4131	***-5.6636	-1.1488
<i>lnInf</i>	***-4.6442	-2.1720	***-5.6144	-2.1698
<i>LnM1</i>	***-3.2619	-1.2930	***-4.7931	-1.0722

	ADF		P.P	
$LnM2$	***-3.7182	-1.8951	***-4.9237	-1.4443
$Ln(M1/p)$	-2.4589	-1.1276	** -3.1008	-1.0263
$Ln(M2/p)$	*-2.8389	-1.0555	** -3.3792	-0.8417

1 5 10

\*\*\* \*\* \*

				Mackinon	ADF	
. 10	-2.6069	5	-2.9378	1	-3.6067	--
. 10	-2.6080	5	-2.9399	1	-3.6117	--
. 10	-2.6059	5	-2.9358	1	-3.6019	--
. 10	-2.6069	5	-2.9378	1	-3.6067	--

	ADF	
$\varepsilon_t$	** -3.3427	*** -7.4187
$U_t$	*** -4.3988	*** -6.6672

1 5 10

\*\*\* \*\* \*

				Mackinon	ADF	
. 10	-2.6080	5	-2.9399	1	-3.6117	--
. 10	-2.6092	5	-2.9422	1	-3.6171	--

$$\ln\left(\frac{M_1}{P}\right)_t = 0.666 + 1.133 \ln Y_t - 0.013 \ln r_t - \quad (11) \quad (8)$$

(FM-OLS)

$$- 0.500 \ln ex_t - 0.042 \ln Inf_t + 0.093 D \quad (12)$$

Phillips and Hansen

(Phillips,Hansen,1990)

Microfit 4

1 (1.133)

MI

	1.225		1.133
(0.021-)			(0.013-)
1			1
0.021			0.013
	(0.034-)		(0.042-)
	1	1	
	0.034	0.042	
(0.365-)			
(	) 1	(0.50-)	
0.365		) 1	
(0.014-)			(
			0.50
			(0.093)

**M2**

$$\ln\left(\frac{M_2}{P}\right)_t = 0.263 + 1.225 \ln Yr_t - 0.021 \ln r_t - 0.365 \ln ex_t - 0.034 \ln Inf_t - 0.014 D \quad (13)$$

(t)=	(2.160)	(38.289)	(-4.061)
(SE)=	(0.121)	(0.032)	(0.005)
	(-6.454)	(-2.077)	(-0.535)
	(0.056)	(0.016)	(0.027)

*M2 MI*

5  
1 (1.225)

)  $M1$  ( . : -  
( ) -

.M2

2008

2004

31

.6

2004

2005

.1

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## Estimating and Analyzing the Money Demand Function: The Case of Algeria (1970-2011)

*Mohammed Moussaoui<sup>1</sup>, Sumaya Zirar<sup>2</sup>*

### ABSTRACT

This study aims at exploring the determinants of the demand for money in Algeria. the demand for money as a function of real income, interest rate, inflation rate, exchange rate and a dummy variable to reflect the external shocks, has been estimated using the Fully-Modified OLS to measure the demand elasticities with respect to this variables for the period (1970-2011).

**Keywords:** Monetary Stability, GDP, Money Demand, Unit Root, FM-OLS, M2.

<sup>1</sup> Assistant Professor, Faculty of Economic Science, Management and Commercial Sciences, University of djillali Liabes, Sidi Belabbes, Algeria.

✉ moussaoui\_economie@yahoo.fr.

<sup>2</sup> Assistant Professor, Faculty of Economic Science, Management and Commercial Sciences, University of Abou Bakr Belkaid, Tlemcen, Algeria

✉ zirar\_somaya@yahoo.fr

Received on 28/1/2013 and Accepted for Publication on 29/5/2013.