Exchange Rate Regimes and Economic Growth in Developing Countries: An Empirical Study Using Panel Data from 1980 to 2013

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Abstract. The ideal exchange rate regime is a crucial element in the process of directing economic policies in any country because of its impact on economic performance. It plays a clear role in determining the ability of the economy to face many crises and shocks, whether real or financial, and achieve good growth rates that push the economy forward. The exchange rate regimes are an element of modern financial thinking because they are important in adjusting and settling the balance of payments and maintaining the stability of economic growth rates in developing countries, which are characterized by chronic structural deficit according to the macroeconomic policies in the field of development.

The exchange rate regimes included several ratings ranged from the official classification of the IMF to de jure, which expressed what governments officially declare in relation to their exchange rate regimes, and the actual de facto classification that countries actually apply. Governments may announce their adoption of an exchange rate regime In practice, while in practice it is applying another regime, his is due to several reasons, including the fear of floating. Some countries may officially declare their adoption of floating exchange rate regimes, but they are actually adopting the fixed exchange systems for fear of the effects of floating exchange rate or so-called fear of floating, which is often accompanied by a decrease in the value of the currency (Calvo and Reinhart). So, one of the most important aspects of choosing exchange rate regime is its impact on economic growth.

Thus, the main concern of this paper is to examine the impact of the exchange rate regimes on economic growth in developing countries. Through exposure to the various theoretical and empirical literature that addressed the subject. In order to achieve this target, we used an econometric study using time-series data (Panel Data), a sample consisting of about 38 developing countries during the period from 1980 to 2013 relying on two types of exchange rate regimes: fixed and intermediate regimes according to the new classification of Reinhart and Rogoff (2008 and 2010).To estimate this model was used the Panel Fully Modified Least Squares (FMOLS) in order to know any regimes is the best in terms of economic growth. Our results suggest that there is a positive relation between exchange rate regime and economic growth with a preference for fixed exchange rate regimes in achieving the highest growth rate.

Keywords: Exchange rate regime, Economic growth, Classifications of exchange rate regimes, Panel data, abstract

1 Introduction

The theory of exchange rates has been the focus of academic research since the seventies of the 19th century. Indeed, many studies have been carried out with the aim, on the one hand, of determining the main powers of control in the foreign exchange markets, which explains the sharp fluctuations in exchange rate regimes.

Moreover, according to some economists, exchange rate volatility is attributed to many factors that vary according to the time series. Indeed, there are not only determinants that affect the stability of long-term exchange rates, such as inflation. But also, other factors that influence in the short term such as capital flows. Therefore, identifying the ideal exchange rate regime is an important step on the one hand, in order to improve macroeconomic performance. On the other hand, in order to lessen the onset of financial crises, especially currency crises. In this perspective, several theories emerged to try to highlight the determinants that make it possible to choose the ideal exchange rate regime and appropriate to the situation Economic system of each country. In addition, exchange rate regimes can be categorized in different ways. On the one hand, the so-called "jury" classification, official or declared to the International Monetary Fund. This classification represents official government statements regarding the exchange rate regime adopted in the country. On the other hand, the actual "de facto" classification which represents the exchange rate regime actually adopted by the authorities. For governments are likely to announce that they formally apply one of the two exchange rate regimes previously cited. While in reality they are applying another exchange rate regime for many reasons. The adoption of the floating exchange rate regime is often accompanied by a decline in the value of the currency (Calvo and Reinhart). For this reason, some countries formally announce the adoption of a Floating exchange rate but in fact they apply a fixed exchange rate.

Although the analytical studies criticized the actual classification methods, they highlighted the impact of exchange rate regimes on macroeconomic performance (inflation and economic growth).

In addition, many studies have been carried out on the relationship between exchange rate regimes and economic growth. On the other hand, the results of these studies have been contradictory and not convergent on the impact of fixed, floating or intermediate regimes on economic growth in countries. Some of these studies have found an obvious effect on growth. While for others the results suggest that the relationship between exchange rate regimes and growth is weak or non-significant. Considering, on the one hand, the ambiguity that characterizes the relationship between the rate regime and economic growth. On the other hand, the difficulty of choosing the adoption of the optimal exchange rate regime which allows the growth of economic growth. The identification of exchange rate regimes on economic growth in developing countries is important.

From this perspective, and in order to determine the optimal exchange rate regime that supports the growth of economic growth, this paper attempts to analyze the effect of exchange rate regimes on the economic growth in developing countries.

In order to answer our problematic we have proposed the following hypotheses:
- The type of the exchange rate regime (fixed, intermediate) has a significant impact on economic growth in developing countries.
- The economies of countries adopting fixed exchange rate regimes are characterized by a higher rate of economic growth than countries with intermediate rates.

2   Literature Review on Exchange Rate Regimes

According to economic theory, the type of exchange rate regime does not affect the equilibrium of real values of variables in the long run. On the other hand, it can affect the process of adjusting the value of these variables. Moreover, the relationship of the exchange rate regime to economic growth can be seen through the impact of the exchange rate regime on speed Economic shocks targeting the domestic economy.

Economic growth is a complex phenomenon affected by several variables such as social, economic, political, and cultural, etc. However, the literature that deals with the relationship between exchange rate regimes and economic growth has provided some of the arguments for the existence of a relationship between exchange rate regimes and economic growth. Indeed, floating exchange rate regimes can affect growth in the medium term directly by absorbing and / or curbing the shocks to which the economy is exposed. As a result, it so quell the fluctuations that occur in economic growth rates as they can also indirectly influence economic growth. They can influence the main determinants of economic growth, such as investment, foreign trade, financial sector development and foreign capital flows. Moreover, suppose there is an external shock represented by the deterioration of the terms of trade. However, foreign demand for local currency will decline. This, in turn, leads to lower exchange rates in local currencies relative to foreign currencies. As a result, there is an increase in exports and a decrease in imports (depending on the elasticity of demand for exports and imports).

However, the effect of this exchange rate regime has, on the one hand, isolated the shocks for the real sector. On the other hand, reduces the volatility of growth rates. In addition, other studies argue that floating exchange rate regimes cripple economic growth. Indeed, the nominal exchange rate undergoes many fluctuations under these schemes. Moreover, exchange rates sometimes do not reflect the real power of supply and demand for money, because other factors intervene, such as speculation. Therefore, using monetary policy as a means to mitigate the fluctuations in economic cycles is only effective if this monetary policy is credible. Indeed, Hausmann and others have concluded that in Latin America, which uses the floating exchange rate regime, the use of monetary policy to curb shock cycles leads to the deepening of these shocks rather than the absorptions And mitigate their impact on economic growth.

3 Empirical Evidence

The process of choosing between different exchange rate regimes and how these systems affect macroeconomic variables is considered to be a controversial issue among researchers and those interested in macroeconomic policy.

The literature differed between them regarding the relationship between exchange rate systems and economic growth, and what is the nature of this relationship.

The literature did not provide the decisive choice for the system which works to increase the economic growth rates as well as the possibility of absorbing shocks that will increase fluctuations in this rate, which called for research through the applied studies that dealt with the subject, and will review the most important applied studies that Which dealt with the relationship between exchange rate regimes and economic growth.

Some theoretic and empirical studies that examined the relationship between the exchange rate system and economic growth failed to distinguish a clear link between economic growth and the exchange rate system, and the results were ambiguous, sometimes inconclusive and contradictory. This may be

due to the fact that most of this research is based on the official classification declared by the countries, which is different from the actual classification applied as a result of pressures on the economy, fear of floating, or fear of announcing the exchange rate.

In theory, the nature of the exchange rate system does not affect long-term real variables. Mundell (1963) points out that the exchange rate returns to its equilibrium value after any economic shock, regardless of the exchange rate regime.

In a previous study by Baxter and Stockman (1989) on a sample of 49 countries to compare the behavior of some major economic groups (production, consumption, foreign trade, and real exchange rates) during the period raging from 1946 to 1986. The researchers found that there is no systematic difference With regard to the behavior of these economic groups in light of the difference of exchange systems applied. Similarly, Mills and Wood (1993) based on the experience of Britain between 1855-1990 proved that there was no effect of the exchange rate regime on economic growth. The Rose study (1994) drew similar conclusions from the case study of Germany between 1960 and 1992. Rose, Flood (1995) analyzing the evolution of the main macroeconomic variables of a sample that included nine countries in the Organization for Economic Co-operation and Development (OCDE) during the period from 1975-1990 to various exchange rate systems has no significant effect on the volatility of macroeconomic variables.

A study of Ghosh, Gulde, Ostry et Wolf (1997) of a sample of 136 countries during the period of 1960 to1989, find that countries that adopt fixed exchange rate regime recorded low growth rates compared to countries that adopt flexible exchange rate regimes. Differences in economic growth rates and fluctuations in production volume due to differing exchange rate regimes. By using the same data from the period of 1975 to1996, IMF (1997) concludes to the same results. Ghosh and Gulde et Wolf (2003) re- examined the effect of exchange systems on inflation and the economic growth of a sample of 165 countries in 1973-1999. The study found that fixed exchange systems recorded a low rate of inflation compared to countries that adopt systems and there was no statistically significant relationship between exchange systems and economic growth.

Most of these studies were based on the official classification of the International Monetary Fund, which resulted in the lack of strong results regarding the impact of exchange rate regimes on economic growth, which led some researchers to use other classifications to study the relationship between the exchange rate system and economic growth. Thus,Bailliu, Lafrance and Perrault (2001), using their own classification for a sample of 25 emerging countries during the period 1973-1998,noted that floating exchange rate regimes were accompanied by faster economic growth, but only in the case of relatively open countries with international capital flows and developed financial markets ,also countries that have a flexible system and have a developed financial sector that can absorb exchange rate shocks.

Similarly, Yeyati and Sturzenegger (2003) using annual data of 183 countries during the period 1974-2000, noted that the pegged exchange regimes are associated with lower growth in the developing countries, whereas in industrialized countries, it was found that the exchange rate regime has no significant effect on growth. Rogoff, Husain, Mody, Brooks and Oomes (2003) analyse the behavior of real GDP of 160 countries during the period 1940-2001. When the whole sample was studied, no strong correlation was found between exchange rate flexibility and economic growth This is regardless of the type of classification used in the study. However, when studying each sample separately, the researchers found that exchange rate elasticity is negatively correlated with economic growth, but this effect was not statistically significant. For emerging economies, the impact of exchange rate flexibility on economic growth has been very ambiguous. For developed countries, the free float regime is the best for economic growth.

In 2004, Mody and Rogoff Husain studied a sample of 158 countries, including developing countries, emerging markets, and developed countries from 1970-1999, based on the RR classification (Reinhart and Rogoff classification) and the International Monetary Fund classification. The choice of the exchange rate regime depends mainly on the level of economic development. The researchers also conclude that for developing countries the fixed exchange rate system is linked to a low growth rate without affecting growth. For floating regimes, these countries (developing countries) have high inflation and are not linked to a better growth rate. As for emerging markets and developed countries, the adoption of flexible exchange rates increases inflation without achieving growth gains (banking crises and currency crisis).

In 2004, Reinhart and Rogoff (2004) used monthly data for 153 countries and created a new classification of the exchange rate regimes actually applied, known as the RR, relative to the names of the researchers, taking into account the parallel market of the exchange rate The methodology of this classification examined the relationship between exchange rate systems and economic growth. The researchers concluded that exchange rate arrangements are of little importance in terms of their impact on growth, trade and inflation. Larrian (2005) examined the relationship between exchange rate systems and the performance of the economy in 174 countries in the period 1974-2000. The study concluded that countries that implement exchange rate regimes are better in terms of economic growth rates Compared with other exchange rate regimes. - Chaker Aloui, Haithem Sassi, 2005 for 53 countries from 1973-1998 involving 20 emerging countries, 20 developed countries and 13 developing countries using the official FMI classification. The study concluded that it is important to consider the monetary policy that supports the exchange rate system to achieve good growth rates in developing and emerging countries.For developed countries, there are other factors that affect growth such as exchange rate fluctuations.

Based on other types of non-IMF exchange rate classification systems, some recent empirical studies have confirmed a strong correlation between the nature of the exchange rate regime and economic growth.

4 Methodology and results

Due to the lack of some data in 38 developing countries ,our study covers the following: a sample of MENA countries, a sample of African countries , A sample of countries in Latin America and the Caribbean, a sample of Asian countries.

Our main objective is to test the impact of exchange rate regimes on economic growth in the developing country and to know which systems are the best and which can achieve higher economic growth in developing countries .Accordingly, and as far as our data is concerned, based on annual data, the variables that have been chosen in our study are the following: Gross Domestic Product (GDP), Investment as a percentage of GDP. (INVGDP), The growth rate of the money supply (M2), Domestic credit to the private sector (% of GDP) (FD), Public expenditure as a percentage of GDP (GGE), The commercial opening rate (OPEN), Political Stability (POLSTAB).

In addition, the dummy variables that represent the type of exchange rate regime are also included:
INT: the dummy variable relating to the intermediate exchange rate regime.
FIX: the dummy variable relating to the fixed exchange rate regime.

Consequently, we have found that some countries could be classified as having intermediate regimes or at least the exchange rate behave in such for all the period of study. For the other countries there

was a tendency to move to fixed regimes. Thus our sample falls within two main categories: fixed regimes and intermediate regimes.

In addition, using the empirical models of economic growth, the following application of the dynamic model of time series data.

$$y_{i,t} = \alpha_i + \beta_1 FD_{i,t} + \beta_2 M2_{i,t} + \beta_3 GGE_{i,t} + \beta_4 INVGDP_{i,t} + \beta_5 OPEN_{i,t} + \beta_6 POLSTAB_{i,t} + \beta_7 INT_{i,t}$$
$$+ \beta_8 FIX_{i,t} + \varepsilon_{i,t}$$

- **Sources of study data**:

Data are taken from World Bank Statistics (WDI), International Monetary Fund (IFS), Freedom in World / Heritage Foundation, United Nations Conference on Trade and Development (Unctad). As for the sources of the variables data for the systems, we chose the actual (real) classification of the exchange rate systems according to the Reinhart and Rogoff tax scheme (2008) and (2010), which is one of the latest classifications related to the exchange rate systems, Specified in the parallel market.

- **Steps in the estimation model and analysis of results:**

1. The Hausmann test :

The Hausmann test is carried out to determine the appropriate model for our study (fixed effect or random effect), the following table shows the results obtained by this test.

Table 01: Hausman test results

The value of the test (Chi-Square.Statistic)	22.362696
P-Value	**0.0043***

Source: Our calculates under Eviews 9.
* Statistical significance level of around 5%.

Based on the results of the Hausman test, on the one hand, the probability value is less than 5%. On the other hand, the test value for Chi-Square.Statistic is greater than the tabular value when the degree of freedom is equal to 8. Indeed, this result represents the number of independent variables. This means that there is a correlation between the effects of countries and the explanatory variables that allow us to accept the fixed effects model as an appropriate model for the sample studied.

2. LLC, IPS, Fisher ADF tests for unit roots:

The next step in our data analysis is to test the stability of the CT series. Indeed, the following table shows the results of the LLC, IPS and Fisher-ADF tests, which allow us to detect the properties of the time series and the categorical variables to the model. And this by testing the appropriate deceleration periods in a standard AIC manner for each variable separately. The following table shows the results.

Table 02: The results of the unit root tests:

Statistical Test	Number of observation	GDP	FD	M2	GGE	INV	OPEN	POLSTAB
LLC Adf-stat	1231	-20.8775 (0.0000)	0.63753 (0.7381)	0.64230 (0.7397)	-3.28941 (0.0005)	-5.62315 (0.0000)	-2.16518 (0.0152)	-5.38433 (0.0000)
IPS Adf-stat	1231	-22.8775 (0.0000)	1.14331 (0.8735)	-0.86221 (0.1943)	-3.87208 (0.0001)	-6.04945 (0.0000)	-3.50565 (0.0002)	-4.53352 (0.0000)
ADF Fisher	1231	652.961 (0.0000)	80.3788 (0.8795)	97.5526 (0.0486)	126.239 (0.0003)	158.521 (0.0000)	121.205 (0.0008)	139.710 (0.0000)

Source: Our calculates under Eviews 9.
N.b: probabilities are between parentheses.

The first value in the table represents the t-statistic, while the values in parentheses represent the value of a statistical probability for each variable. Indeed, the results show the absence of the unit root for each of the GDP, GGE, INV, OPEN, POLSTAB, which reflects the stability of these variables at level. According to test I (1) we observe the stationarity of our variables.

3. Cointegration test:

The presence of some integrated variables of the same class leads us to test the simultaneous integration relations between these variables using the Pedroni test, which is based on the unit root estimated for residue tests. Table 6 shows the results of this test.

Indeed, the results of the simultaneous integration indicate the presence of an integration in the long-term relation between the variables studied in the same class. This leads us to accept the hypothesis and therefore the existence of long-term relationships between these variables.

03: The results of the cointegration test

	Pedroni Test		
	Com.AR	**Statistic**	**Statistic weighted**
FD	**V-stat**	-0.554767	-1.164649
	RHO-stat	-0.452091	-1.370844
	PP-stat	-3.449681	-4.957781
	ADF-stat	-4.696777	-6.971180
M2	**Indiv.AR**	**Statistic**	**Probab**
	RHO-stat	1.786572	0.9630
	PP-stat	-2.004678	0.0225
	ADF-stat	-2.421035	0.0077

Source: Our calculates under Eviews 9.

4. The Cointegration Estimation with Panel Fully Modified OLS (FMOLS) Method

 is the correction of nonlinearity using the ordinary least squares method.

Indeed, this method is created by researchers Phillips and Hansen (1990) and Phillips (1995) in an attempt to get rid of bias at the second level. The basic idea of this method is to obtain a non-

asymptotic intermediate is approximate to the normal distribution. The following table shows the results.

04: Estimation of model parameters using the FMOLS method

The explanatory variables	Regression Coefficient	Standard Error	T-Statistic	Probability
The dependent variable is the growth of gross domestic product per capita (GDP) , R-square = 0.969969, Observations = 132
FD	-0.011509	0.073577	-0.156427	0.8760
M2	0.022066	0.085554	0.257916	0.7969
GGE	-0.302074**	0.121693	-2.482268	0.0144
INV	0.108650*	0.055809	1.946833	0.0538
OPEN	0.009636	0.039259	0.245460	0.8065
POLSTAB	0.911036	0.676463	1.346764	0.1805
INT	2.409740**	1.037900	2.321746	0.0219
FIX	3.190699**	1.370567	2.328013	0.0215

(***) (**) (*) Designate respectively the level of significance of 1%, 5%, 10%

According to the results presented in the table above, we find that the relationship between the explanatory variables and the dependent variable is powerful, thanks to the correlation coefficient R = 0.969969, which is close to its 1% value.

Moreover, it is clear that our results are consistent with economic theory. This concerns both public expenditure, investisments and the two intermediate and fixed exchange rate regimes. Except the parameters of the lending variables granted to the private sector, the trade openness, the money supply and variables political stability.

Indeed, public spending is significantly at the 5% level. Hence, an increase in public spending leads to a decline in economic growth rates. This explains why there is an inverse relationship between these two variables, so that the increase in the public expenditure rate of a unit is offset by a decrease in the rate of economic growth to 0.302074 units. Indeed, this results is consistent with economic theory and with the studies of Barro and Sala-i-Martin (1995) and Balliu Al (2002), Levy-Yevati Sturzenegger (2002).

addition, public consumption indirectly affects growth by influencing private sector decisions. Indeed, this result is consistent with the study by Barro (1995). According to this study, government consumption as a percentage of GDP, and spending are negatively associated with economic growth.

As for investment, the coefficient is significantly positive at the 10% threshold, which means that there is a direct correlation between investment and growth rate so that when investment increases by one unit growth Economic growth of 0.108650 units. Our result also joins economic theory. If the increase of the investment creates an increase in production within the country this leads to the development of economic growth Levy-Yeyati, study Sturzenegger (2003). Moreover, with respect to the intermediate and fixed exchange rate regimes, the results of the study support the hypothesis that the effect of the exchange rate regime on economic growth in the " Study sample.

This means that countries that adopt a fixed exchange rate regime for a given year will achieve an increase in the gross domestic product (GDP) rate of growth per capita, unlike countries that adopt the intermediate exchange rate regime. These results are in line with those of H. Sassi, C. Aloui (2005), Gosh (1997), Frankel (1997), Rose (2000). This result also allows us to conclude that these countries were vulnerable to monetary crises and thus show the importance of adopting the fixed exchange rate regime.

In addition, the coefficient of the variable relative to the two types of exchange rate regime is positive and statistically significant at the 5% threshold.

In addition, the coefficient of the variable in the fixed exchange rate regime is higher than in the intermediate exchange rate regime.

On the other hand, the results obtained in this study show, on the one hand, that there is a positive relationship between the exchange rate regime and economic growth. On the other hand, these countries can reduce the risk through a strong trade openness, which can favor negative external shocks, especially when the exchange rate is fixed.

Conclusion

The objective of this study is to identify the effect of exchange rate regimes on economic growth in developing countries. Indeed, the study was carried out on a sample of 38 developing countries, while exploiting data covering a 33-year study period from 1980 to 2013.

Based on the classification of the real exchange rate regimes with reference to the work of the Reinhart and Rogoff method, 2008 and 2010 we arrived at the following results:

The types of the exchange rate regime affect economic growth in the developing contries thet make up our sample. Indeed, the results show that there is a positive effect of the fixed and intermediate rate on economic growth.

- Compared to intermediate exchange rate regimes, fixed exchange rate regimes favor economic development by increasing the rate of economic growth in developing countries.
- Fear of the effects of the floating regime is among the most important reasons why developing countries do not declare the real regime adopted. Whereas they apply a fixed or intermediate exchange rate regimes.

Finally, we can say that the adoption of the exchange rate regime is one of the most important economic policies applied by the countries that allow them to increase economic growth rates. Moreover, although the results of previous studies were contradictory and different, the manner of classification adopted, the study period and the sample differed from one study to another. Finally, it remains difficult to determine an optimal exchange rate regime for each country.

References

Achy L and K Sekkat, (2003), "The European Single Currency and MENA's Exports

Bailliu, J., Lafrance, R., and J.-F. Perrault (2001), "Exchange rate regimes and economic in emerging markets", actes d'un colloque tenu à la Banque du Canada,novembre 2000, Bank of Canada, Ottawa, 347-377.

Atish R. Ghosh, Marco Terrones and Jeromin Zettelmeyer,(2008)," Exchange Rate Regimes andExternal Adjustment: New Answers to an Old Debate",Research Department International Monetary Fund.

Baxter. M, Stockman. A, « Business cycles and the exchange rate regime: some international evidence»,Journal of Monetary Economics, Vol.23, n°03, 1989.

Broda, Christian , (2001) , " Currency Unions Coping with Terms-of-Trade Shocks: Pegs versus Floats ",Department of Economics, Massachusetts Institute of Technology, VOL. 91 NO. 2

Bubula A. and I. Ötker-Robe (2002), "The evolution of exchange rate regimes since 1990: evidence from de facto policies", IMF Working Paper, no.02/155.

Calvo, G. and C. Reinhart (2002), " Fear of Floating ",Quarterly Journal of Economics ,v107(2,May), 379-408.

Calvo, G. and F. Mishkin (2003), " The mirage of exchange rate regimes for emerging countries ", NBER,Working Paper No. 9808.

Cartapanis. A, « Le déclenchement des crises de change: qu'avons –nous appris depuis dix ans ? », Document de travail CEFI, mai, 2000.

Chaker ALOUI et Haïthem SASSI, « Régime de change et croissance économique : une investigation empirique » , La Doc. française : Économie internationale, ISSN 1240-8095.

Chinn, Menzie and Eswar Prasad, (2003), "Medium-Term Determinants of Current Accounts in Industrial and Developing Countries: An Empirical Exploration," Journal of International Economics 59(1) (January 2003).

Corden, W.M. (1994), Economic Policy, Exchange Rates, and the International System , Chicago, University of Chicago Press. Drazen, A. (1999)," Political Contagion in Currency Crises",NBER Working Paper , 7202.

David Romer, « Macroéconomie approfondie », Traduit par Fabrice Mazerolle, Paris, Ediscience international, 1997.

Debraj Ray, « Development economics », New Jersey, Princeton University Press, 1998.

Dellas, H., P.A.V.B. Swamy, and G.S. Tavlas (2002), "The Collapse of Exchange Rate Pegs," The Annals of The American Academy of Political and Social Science, 579.

Dickey, D. A., and Fuller, W. A., " Distribution of the Estimators for Autoregressive Time Series with a Unit Root". Journal of the American Statistical Association , Vol.74, (1979), 427-431.

Dielman, « Pooled Cross-Sectional and Time Series Data Analysis », Texas Christian University, USA, 1989.

Dominique Plihon, « Les taux de change», édition la découverte, Paris, 2001.

Edwards, S. and M. A. Savastano,(1999), "Exchange Rate in Emerging Economies: What do we Know? What do We Need to Know", NBER ,Working Paper ,no. 7228.

Fischer, S. (2001), "Exchange Rate Regimes: Is the Bipolar View Correct?" IMF , paper prepared for delivery as the Distinguished Lecture on Economics in Government at the Meetings of the American Economic Association, New Orleans, 2001.

Frankel, J (2003):"Experience of and lessons from exchange rate regimes in emerging economies",BER Working Paper, no 10032, October.

Ghosh, A.R., A.M. Gulde, J.D. Ostry, and H.C. Wolf (1997), "Does the Nominal Exchange Rate RegimeMatter," NBER Working Paper Series, No. 5874.

Hausmann, R., M. Gavin, C. Pages-Serra, and E. Stein.(1999)." Financial Turmoil and the Choice of an Exchange Rate Regime". Working Paper No. 400. Washington: Inter-American Development Bank.

Husain, A., Mody, A. and Kenneth Rogoff, K. (2005), "Exchange Rate Regime Durability and Performance in Advanced and Developing Countries," Journal of Monetary Economics Vol. 52.

Johansen, S. and K. Juselius, (1990) "Maximum Likelihood Estimation and Interference on Cointegration with Application to the Demand for Money", Oxford Bulletin of Economic and Statistics, 52, 169-210.

Johansen, S., (1991), "Estimation and Hypothesis Testing of Cointegration Vectores in Gaussian Vector Autoregressive Model", Econometrica, 59, 1551-580.

Jona J.Klein, "Money and Economics "Fourth edition, New York ,Harcobirt Brace ovanovich,Inc,1978.

Jose G. Montalvo , " Comparing Cointegrating Regression Estimators: Some additional Monte Carlo results ", Economics letters 48(1995) 229-234 .

Kamar, Bassem and Damyana Bakardzhieva, (2003) "Economic Trilemma and Exchange Rate Management in Egypt", Paper presented at the 10th Annual Conference of the ERF, December 16-18, 2003, Marrakesh.

Kamar, Bassem, (2004)" de facto Exchange Rate policies in the MENA region: toword deeper cooperation " Paper Presented for the 11th Annual Conference of The Economic Research Forum for the Arab Countries , Iranand Turkey 16 th -18 th ,Beirut , Lebanon.pp.1-24.

Kindleberger ,Charles ,(1976) : "Lessons of Floating Exchange Rates" in K ,Burnner and A.H.Meltzer, eds., Institutional Arrangements and the Inflation Problem , Carnegie-Rochester Conference Series on Public policy , Journal of Monetary Economics ,VOL.3.

Klein, John J. (1970). "Money and the Economy", 2nd Ed. Harcourt, Brace & World, Inc., New York.

Kodres, L., and Pritsker, M., (2002), Calvo and Mendoza, (2000); Obstfeld, M., (1996) .

Larrian B. and Francisco Parro G.,(2005)," Do Exchange Rate Regimes Matter? Evidence for Developing Countries ", available at

Lars E.O. Svensson "Exchange rate target or inflation target for Norway?" Scandinavian University Press (Universitets for laget AS), Oslo, September 1997 .

Laursen, S. and Metzler, L. A. (1950)." Flexible exchange rates and the theory of employment", Review of Economic and Statistics, 32.

Levin. A, Lin .C and Chu. C, 2002, « Unit root test in panel data: Asymptotic and finite sample.

Matthew B. Canzoneri, Robert E. Cumby and Behzad T. Diba ,(2000), " Fiscal Displine and Exchange Rate Systems " Economics Department, Georgetown University .

Menzie D. Chinn and Hiro Ito,(2006)," Current Account Balances, Financial Development and Institutions: Assaying the World "Savings Glut", The Twelfth Dubrovnik Economic Conference.

Menzie D. Chinn; Shang-Jin Wei,(2009)," A Faith-based Initiative Meets the Evidence: Does a Flexible Exchange Rate Regime Really Facilitate Current Account Adjustment?".

Michel Bialés ; Remi Leunion ; et les autres : Notion Fondamentales d'économie, Edition Foucher, Paris, 1998.

Michel LUBRANO, cours des séries temporelles, chapitre IV : tests de racine unitaire, Université de Paris , Septembre 2008.

Mills. T, Wood. G, « Does the exchange rate regime affect the economy? », Federal Reserve Bank of ST Louis,Vol. 75, n°75, 1993.

Mishkin., 1998, " International Experiences with Different Monetary Policy Regimes ", institute for international economic studies Stockholm University, Seminar Paper No. 648.

Mishkin., 1998, " International Experiences with DifferentMonetary Policy Regimes ", institute for international economic studies Stockholm University, Seminar Paper No. 648.

Mohamed Daly Sfia, « le choix du régime de change pour les économies émergentes », MPRA Paper Munich Personal Repec Archive FSEG Tunis May 2007 , No. 4075 .

Montalien,T., «Quelle Stratégie De Change Dans Les Economies En Developpement ? » Revue Monde Et Développement, Tome 33, Année 2005, Université Orelaus.

Morsy. Hanan ,(2009)," Current Account Determinants for Oil-Exporting Countries", IMF Working Paper .

Mundell, Robert (1961). "A Theory of Optimal Currency Areas." American Economic Review , Vol.51 No. 4.

Mundell, Robert (1963). "Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates" Canadian JE. 29.

Murat Yildizoglu, « Note sur la croissance économique à partir de (Easterly 2002) », octobre 2003.

Mussa, Michael, (1986), "Nominal Exchange Rate Regimes and the Behavior of Real Exchange Rates: Evidence and Implications," Carnegie-Rochester Conference Series on Public Policy , Vol. 25 (Autumn).

Obstfeld, M., and K. Rogoff (1995), "The Mirage of Fixed Exchange Rates," NBER Working Paper Series, No. 5191.

Obstfeld, Maurice, and Alan Taylor (2002). "Globalization and Capital Markets." National Bureau of Economic Research, Working Paper Nº. 8846, forthcoming in the NBER conference volume edited by Michael Bordo, Alan Taylor, and Jeffrey Williamson.

Pahlavani, and Saleh (2009). "Budget Deficit and Current Account Deficits in the Philippines: A Casual Relationship ." American journal of Applied Sciences,6(8) :1515-1520.

Pedroni. P, « Panel cointegration: asymptotic and finite sample properties of pooled times series tests with an application to the PPP hypothesis », Econometric Theory, 20, 2004.

Peter B.Kenen "Fixed versus Floating Exchange rates, (2000)" Cato Journal , Vol. 20, No. 1.

Phelps, Edmund. 1973. Inflation in the Theory of Public Finance. Swedish Journal of Economics. 75(March): 67- 82.

Phillips, P.C.B and Perron, P., "Testing for a Unit Root in Time Series Regression", Biometrika, Vol.75, (1988),335-346.

Régis Bénichi, Marc Nouschi, « La croissance aux XIXème et XXème siècles », 2éme édition, édition Marketing, Paris, 1990.

Regis Bourbonnais, 2009, « Econometrie », 7ème édition, Donod, Paris.

Reinhart, C. and K. Rogoff (2002): "The Modern History of Exchange Rate Arrangements: A Reinterpretation" ,National Bureau of Economic Research , 8963 .

Reinhart, C. M. y Rogoff , K. "The modern history of exchange rate arrangements: a reinterpretation", Quarterly Journal of Economics, No119, 2004.

Reinhart, C. M. y Rogoff , K. "The modern history of exchange rate arrangements: a reinterpretation", Quarterly Journal of Economics, No119, 2004.

Rogoff,K.S.,   Husain,A.M ,Mody,A,Brooks,R.,Oomes,N,2003"Evolution   and   Performance   of Exchange Rate Regimes",International Monetary Fund,Working Paper N 243.

Rogoff. K, « Perspectives on exchange rate regimes », International Capital Flows, ed. by Martin Feldstein, University of Chicago Press, Chicago, 1999.

Rogoffk, Hussain M, Mody A, Brooks R" Evaluation and performance of exchange regimes"international capital Flows edition by Martin Feldstein, University of chcago Press.

Rupa Duttagupta and Guillermo Tolosa (2006) , " Fiscal Discipline and Exchange Rate Regimes: Evidence from the Caribbean Prepared by Rupa Duttagupta and Guillermo Tolosa" , IMF Working paper , 119 .

Sabine Herrmann,(2009)," Do we really know that flexible exchange rates facilitate current account adjustment?Some new empirical evidence for CEE countries" Deutsche Bundesbank, Discussion Pap er , Series 1: Economic Studies .No 22/2009.

Sahbaz. Ahmet ; Ayse . Pehlivan (2002), " Recent Debates on Exchange Rate Regimes for Emereging Markets", The central Bank of the Republic of Turkey.

Salanie.B, Guide pratique des series temporelles, Economie et Prévision, 1999.

Simon Sovilla and M.Carmen Ramos-Herrera, 2014 "Exchange Rate Regimes and Economic Growth: an empirical evaluation ", Working Papers on International Economics and Finance , DEFI 14-01.

Slavi T. Slavov,(2009)," Structural Current Account Imbalances: Fixed Versus Flexible Exchange rates? ".

Svensson, Lars E.O. (1994a), "Fixed Exchange Rates as a Means to Price Stability: What Have We Learned?" EEA Alfred Marshall Lecture, European Economic Review 38.

Svensson, Lars, 1995, "The Swedish Experience of an Inflation Target," in Inflation Targets , edited by Leo Leiderman and Lars Svensson (Centre for Economic Policy Research: London).

Tahar Ben Marzouka et Mongi Safra, " Monnaie et finance internationale : Approche macro – économie ", Economica – paris - 1994, p: 70.

Tornell, A., and A. Velasco, (1995), "Fixed or Flexible Exchange Rates: Which Provides More Fiscal Discipline?" NBER Working Paper No. 5108.

Velasco. Andrés ,(2000) , "Exchange-rate Policies for Developing Countries: What Have We Learned? What Do We Still Not Know?" United Nations , center for international development Harvard University , G-24 Discussion Paper Series.

Walters, Allan (1986), Britain's Economic Renaissance, Oxford University Press, Oxford .

Williamson. J, « Designing a middle way between fixed and flexible, exchange rates», Working Paper No. 49.ECES, 2000, p.12.

WWWtest.aup.edu/lacea205/system/step2_php/papers/larrian_parro.pdf.

Yeyati Eduardo Levy ; Federico Stuzengger ; Iliana Reggio (2006). "ON Endogeneity of Exchange Rate Regimes" Harvard University ,Faculty Research working paper series.

Yeyati Eduardo Levy and Frderic Sturzengger ,(2007) "The Effect of Monetary and Exchange Rate Policies on Development", Handbook of Development economics .

Yeyati, E. and F. Sturzenegger (2000), "Exchange Rate Regimes and Economic Performance", IMF Staff Papers , vol. 47.

Yeyati, E. and F. Sturzenegger,(2007), "Fear of Floating in Reverse: Exchange Rate Policy in the 2000s", Manuscript in progress .

Yeyati, E. and Sturzenegger, F. (2005)"Classifying Exchange Rate Regimes: Deeds vs. Words", European Economic Review, Vol.49.

Yeyati, E. and Sturzenegger, F.(2003) "A de facto Classification of Exchange Rate Regimes: A Methodological Note" forthcoming American Economic Review.

Yeyati, E., and F. Sturzenegger , (2000b), To Float or toTrail: Evidence on the Impact of Exchange Rate Regimes," CIF Working Paper No. 01/2001 Buenos Aires: Universidad Torcuato Di Tella . Available via the Internet: http://www.utdt.edu/~ely/growth_final.pdf.

Yeyati, E., and F. Sturzenegger, (2003), "To Float or toFix: Evidence on the Impact of Exchange Rate Regimes on Growth," American Economic Review, Vol. 93, No. 4 (September).

Yeyati., E. (2005), "Exchange Rate Regimes in the 2000s: A Latin American Perspective ", prepared for the Conference on A New Economic Development Agenda for Latin America, Salamanca, October 8-9.

Yves Simon, Samir manai « technique financiere internationale » , 7 eme édition , Economica, Paris, P182.

Zulfiqar Hyder and Adil Mahboob ,(2006) , "EquilibriumReal Effective Exchange Rate and Exchange Rate Misalignment in Pakistan ",State Bank of Pakistan SBP Research .