

THE IMPACT OF EXCHANGE RATE MOVEMENTS ON TRADE BALANCE IN NIGERIA'S OPEN-ECONOMY

1. INTRODUCTION

Opinions among economists on foreign exchange rate movements/volatility and uncertainty are divided. Some support fixed exchange regime while others place emphasis on floating exchange rate regime. In a fixed exchange regime, the government (or the central bank acting on behalf of the government) intervenes in the foreign exchange market so that the exchange rate is fixed administratively. In a floating exchange regime, the exchange rate is determined directly by market forces, and is liable to fluctuate continually as dictated by changing market conditions (Isard, 1999 and Kenen, 1995). Proponents of flexible exchange rate have argued that fixed exchange rates encourage speculative capital inflows. The economic policy implication is to pursue fully more flexible exchange rate regime (Fisher, 2001). In contrast proponents of fixed exchange rates have stressed the positive impact of exchange rate stability on the economic performance of the East Asian economies prior to the 1997/1998 economic crisis.

In the 1960s, Nigeria operated a fixed exchange rate regime and the currency was fixed at par with the British pound and it lasted till 1967 when the British pound was devalued. Rather than devalue, the monetary authorities pegged the currency to the US dollar, but imposed restrictions on imports via strict administrative controls on foreign exchange.

Following the international financial crisis of the early 1970s which led to the devaluation of the US dollar, Nigeria abandoned the dollar peg and once again kept faith with the British pound until 1973, when the new Nigerian naira was once again pegged to the US dollar. It was against this backdrop that the need to independently manage the exchange rate of the naira was firmly established. Hence in 1978, the monetary authorities pegged the naira to a basket of 12 currencies of Nigeria's major trading partners. However, the sharp fall in oil prices and consequent decline in foreign exchange receipts

were such that the economy could not meet its international financial commitments, persistent increase in imports coupled with declining external reserve position severely compromised the creditworthiness of the country abroad. To mitigate these developments, the Stabilisation Act of 1982 was implemented which led to accelerated depreciation of the naira. However, the overvaluation of the naira still persisted as the rate continued to be fixed administratively. The failure of the Stabilisation Act to address the economic problems (unpaid trade bills and accumulating payment arrears consequent upon the sharp fall in oil process) led to the introduction of the Structural Adjustment Programme (SAP) in July 1986.

The flexible exchange rate regime produced volatility and uncertainty in the naira exchange rate. This aroused a great concern as exchange rate movements, which stem from shocks in the financial markets, level of output, incomes amongst others, yield inconsistent results about its impact on the balance of trade. The trade balance is in a section of the balance of payments statement known as the current account. Exchange rate is an important factor in determining the nature of balance of payment whether deficit, surplus or balanced.

Fischer (1999, p. 79) argued that the primary responsibility for development rests with developing countries, which should emphasize: investing in people, improving the climate for enterprise, opening economies to international trade and investment, and getting macroeconomic policy right. The exchange rate was steady in the period 1975-1985 but has been volatile since 1986. The objective of this study is to examine the impact of exchange rate on the current account balance, that is, the trade balance in the period 1975-2010 to enable us capture both the pre-deregulation (pre-SAP fixed exchange rate regime) and deregulation (SAP and post SAP-floating exchange rate regime) periods.

The next section is devoted to Nigeria's trade balance and the exchange rate. Literature review is in the third section while section 4 deals with data and methodology as well as the results. Conclusions and policy recommendations are presented in the final section.

2. NIGERIA'S TRADE BALANCE AND EXCHANGE RATE

2.1 The Naira/US Dollar Exchange Rate

In the 1970s, following the increase in the world oil prices and with oil production expanding, Nigeria seemed to be on track to prosperity. Oil revenues allowed for large investment projects and programmes and rapidly rising government expenditures led to

increasing purchasing power for significant numbers of people. In 1980, with oil export revenues at US\$26 billion and a *per capita* GDP of US\$1480 Nigeria was considered a middle-income country and had easy access to international capital markets. The fall in oil production in 1981 (owing to OPEC quota changes) and the subsequent oil price decrease made it clear how dependent the economy and government budget had become on oil revenues. Initially, the government sustained its expenditures by increased foreign borrowing, rapidly building up foreign debt. However, soon after the 1982 international debt crises, Nigeria was cut off from the international capital market. In the face of falling oil revenues, the government maintained an overvalued naira exchange rate while resorting to discretionary foreign exchange controls which drove up the parallel market premium to over 100 per cent at times and damaged domestic industry and agriculture. Other price and interest rate controls, mandatory credit allocation schemes and commodity boards further distorted the economy.

Several episodes of highly expansionary monetary policy (1987-88 and 1990-94) associated with monetary financing of budget deficits fuelled high inflation. Throughout the 1980s and 1990s, much of public sector investment (which accounted for two-thirds of total investment during the period 1973-90) was directed to wasteful projects, resulting in low return on investments meagre productivity growth. The implementation of market reforms, a sizeable devaluation and tight fiscal and monetary policies (initially at least) under the Structural Adjustment Programme boosted economic growth. In the early 1990s, with oil prices and hence, government revenues declining, strong monetary financing of fiscal deficits drove up inflation, which reached 57.2 per cent in 1993 and 57 per cent in 1994. There was a sudden devaluation of the naira exchange rate from N9.9 per US dollar in 1991 to N22 in 1993 and N21.9 in 1994.

Since 1995 the macroeconomic environment has improved. Inflation came down from 72 per cent in 1995 to 8.5 per cent in 1997 – owing to a tightening of fiscal and monetary policies – and foreign exchange became available to the private sector at the autonomous foreign exchange market (AFEM) where the naira exchange rate depended on market forces. Another devaluation of the naira in 1995 (see Table 1) saw the official rate moving to N81.02/US dollar.

No doubt, the exchange rate policy objectives of SAP, by aiming at structural transformation, were in the right direction. Initially, following the introduction of the market-based exchange rate system, there were a few desired macroeconomic outcomes. But the impact of the exchange on the naira revenue of the government has been

TABLE 1 - *Nigeria: Foreign Exchange Rate Movements, 1981-2010*

Year	Official FEM Rate (N/\$)	Parallel FEM Rate (N/\$)	Year	Official FEM Rate (N/\$)	Parallel FEM Rate (N/\$)
1981	0.61	-	1999	92.3428	99.3
1982	0.6729	-	2000	100.8016	112.0
1983	0.7241	-	2001	111.701	132.36
1984	0.7649	3.25	2002	126.2577	137.12
1985	0.8938	3.79	2003	134.0378	141.99
1986	2.0206	4.17	2004	132.3704	140.8508
1987	4.0179	5.55	2005	130.6061	142.5592
1988	4.5367	6.05	2006	136.2796	137.1022
1989	7.3916	10.55	2007	125.881	127.4132
1990	8.0378	9.61	2008	118.8606	120.7124
1991	9.9095	13.04	2009	148.90	161.6432
1992	17.2984	20.03	2010	149.74	153.0638
1993	22.0511	36.23			
1994	21.8861	59.79			
1995	81.0228	59.79			
1996	81.2528	83.09			
1997	81.2528	85			

Note: FEM denotes foreign exchange market.

Source: (i) Central Bank of Nigeria Statistical Bulletin (December 2008 and 2010;

(ii) Central Bank of Nigeria Annual Report (2010).

phenomenal at the massive devaluation of the naira as a result of switching from imported to local inputs for manufacturers. A number of fundamental and secondary factors have contributed to the dwindling fortunes of the naira in all the foreign exchange markets (see Obadan, 2001 for details).

2.2 Foreign Trade Trend in Nigeria

Total imports, export earnings, as well as trade balance of Nigeria are shown in Table 2. Throughout the period net exports was negative only in 1981, 1982 and 1998. This is remarkable and satisfactory.

3. LITERATURE REVIEW

In order to get a better idea of changes in a country's competitive position over time a real effective rate index is compiled by authorities of most countries. The use of the term "effective" in describing exchange rate in the literature portends two different meanings. First,

it connotes “weighted average” and it is synonymous to multilateral real exchange rate (MRER). Second, it connotes incorporation of all forms of taxes charged on imports and exports.

TABLE 2 - *Nigeria's Foreign Trade (Naira Million)*

Year	Imports	Exports	Total Trade	Trade Balance
1981	13505.0	11478.0	24983	-2027
1982	10686.0	9569.5	20255.5	-1116.5
1983	7246.0	8425.6	15671.6	1179.6
1984	5084.0	10102.7	15186.7	5018.7
1985	6262.0	12785.4	19047.4	6523.4
1986	7791.0	9974.8	17765.8	2183.8
1987	16456.6	30151.4	46608	13694.8
1988	18429.6	33811.4	52241	15381.8
1989	37489.9	100476.0	137965.9	62986.1
1990	49794.9	99511.8	149306.7	49716.9
1991	76263.9	137226.1	213490	60962.2
1992	130649.7	2083442.2	2214091.9	1952793
1993	173660.6	241965.3	415625.9	68304.7
1994	170187.4	229867.1	400054.5	59679.7
1995	482182.7	718292.5	1200475.2	236109.8
1996	712422.6	902369.2	1614791.8	189946.6
1997	1019800.8	1214230.8	2234031.6	194430
1998	1027473.5	836233.8	1863707.3	-191240
1999	727926.5	1121840.5	1849767	393914
2000	926963.8	2440292.9	3367256.7	1513329
2001	1785338.4	2231285.1	4016623.5	445946.7
2002	1954406.9	2563707.7	4518114.6	609300.8
2003	3097607.4	3478515.5	6576122.9	380908.1
2004	2134795.8	3520846.2	5655642	1386050
2005	2813177.9	4664757.3	7477935.2	1851579
2006	4022227.0	8066037.7	12088265	4043811
2007	5912234.5	7091314.0	13003549	1179080
2008	4973922.0	9799693.1	14773615	4825771
2009	6383531.5	10063304.7	16446836	3679773
2010	8005374.4	11035794.5	19041169	3030420

Sources: (i) Central Bank of Nigeria Statistical Bulletin (December 2010);
(ii) Central Bank of Nigeria Statistical Bulletin, (December 2008);
(iii) Central Bank of Nigeria Annual Report (2010).

3.1 Link Between Exchange Rate and Trade Balance

The current account balance is the sum of the visible and invisible trade balance. The invisible trade balance shows the difference

between revenue received for exports of services and payments made for imports of services such as shipping, tourism, insurance and banking. In addition, receipts and payments of interest, dividends and profits are recorded in the invisible trade balance.

The relationship between exchange rate movements and the balance of trade is systematically analyzed in the balance of payment literature, using elasticity approach, absorption approach and monetary approach.

The elasticity approach provides an analysis of what happens to the current account balance when a country devalues its currency. The Marshall-Lerner condition which originates from this analysis provides the analytical grounds for the elasticity approach (Stern, 1980). The following is the Marshall-Lerner condition:

$$\frac{dCA}{dS} = M(\varphi_x + \varphi_m - 1) \quad (1)$$

The elasticity approach analyzes two effects: the price and volume effects. The price effect implies that if a currency is devalued, imports become more expensive. The price effect contributes to worsening of the domestic country's current account. On the other hand, the volume effect involves a situation where exports become cheaper which would encourage an increased volume of exports and the fact that imports become more expensive leads to a decreased volume of imports. The volume effect clearly contributes to improving the current account balance. The net effect depends upon whether the price or volume effect dominates.

The absorption approach arose as a consequence of the restrictive assumptions of the elasticity approach. The absorption approach examines the effects of exchange rate on domestic income and spending (absorption). This approach further asserts that the effects of devaluation on the current account balance will depend upon how it affects national income relative to how it affects domestic absorption. If devaluation raises domestic income relative to domestic absorption, the current account improves. However, if devaluation raises domestic absorption relative to domestic spending, the current account deteriorates.

3.2 Empirical Literature Review

Several studies have examined the effect of exchange rate on the trade balance. Lipumba (1997) provided empirical estimates of the impact of real exchange rate depreciation on the current account

balance and export performance. The depreciation of the real exchange rate improved the current account but the terms of trade movement had a larger impact on the balance of trade than it does on the real exchange rate. The depreciation of the nominal exchange rate is, however, associated with increases in inflation. Reinhart (1994) re-examined the role of relative price in trade and came up with the following findings:

- in accordance with standard microeconomic theory, income and relative prices are both necessary and sufficient to pin down steady state trade flows;
- relative price is a significant determinant of the demand for imports and exports;
- even though relative price has a predictable and systematic impact on trade, price elasticities tend to be low and in most cases, will be less than unity;
- industrial country income elasticities are well above those of developing country. This means that in a scenario of balanced growth, the developing country trade balance should improve.

Al-Abdelrazaq (1997) investigated the Jordanian dinar devaluation on the trade balance based on the elasticity approach to the balance of payment. He found that devaluation did not improve the trade balance, simply because the sum of demand elasticities for imports and exports is less than one. Also Cooper (1971) found that overall, a devaluation improves trade balance and balance of payments. In another study Kamin (1988) observed that the trade balance was improved by devaluation through its stimulation of exports. Similarly, Gylfason and Risager (1984) established that devaluation improved the balance of payment though not the trade balance. However, Miles (1979) found that devaluation did not improve trade balance, but rather it worsened the trade balance and the balance of payments. Ajayi (1975), Komolafe (1995), Egwaikhide *et al.* (1999) fitted import demand functions using Nigerian data and found import decisions are determined by the dynamics of foreign exchange availability.

Loto (2011) showed that devaluation/depreciation does not improve the trade balance whereas Ogbonna (2011) found that devaluation/depreciation improves trade balance and that the Marshall-Lerner condition holds for Nigeria.

Omojimate and Akpokoje (2010) observed a small positive effect of exchange rate reforms on non-oil exports through the depreciation of the naira. They also found that the structure of imports which

is pro-consumer goods remained unchanged even after the adoption of exchange rate reforms. Exchange rate reforms were found not to constrain imports as anticipated but rather stimulated imports, albeit insignificantly. Adubi and Okunmadewa (1999) found that exchange rate volatility has a direct negative effect on the level of agricultural export trade in Nigeria. They further pointed out that an increase in the exchange rate (that is, an appreciation of the local currency) decreases export earnings (in local currency) while an increase in export price increases export earnings. According to Egwaikhide *et al.* (1994) imports influenced by exchange rate, significantly explained revenue from import taxes.

4. METHODOLOGY, DATA AND ESTIMATION RESULTS

4.1 Data and Methodology

The data required for this study are time series data from 1975-2010 on: external reserves (EXR); money supply (MS); real gross domestic product (RGDP); trade balance (TB) and nominal effective exchange rate (NEER). The data were obtained from the Central Bank of Nigeria Statistical Bulletin (various issues) and Annual Report 2010, National Bureau of Statistics and academic journals.

Ordinary least squares statistical technique as well as co-integration and error correction techniques were also used. We are aware that nonstationarity of time series data of variables in a regression can lead to spurious results. Consequently, the data are subjected to the augmented Dickey-Fuller unit root test to determine their time series characteristics. Economic variables are said to be integrated of order zero, if the time series is stationary. Those that are differenced once to obtain stationarity are said to be integrated of order one.

Co-integration analysis á la Engle and Granger (1987), is concerned with long-run relationships among economic variables. Basically, if two variables are co-integrated, it implies that there is meaningful long-run relationship between them. Imposing long-run equilibrium conditions on the short-run dynamics can be explored using the Error Correction Model (ECM). The necessary condition for fitting an error correction representation is the existence of at least one co-integrating equation. The Johansen's (1988) approach is used to determine the number of co-integrating equations in the ECM.

4.2 The Model

From the economic literature, one important determinant of the balance of trade is exchange rate movements. Effective exchange rate implies nominal or real effective exchange rate in relation to a weighted basket of currencies. From economic theory it is believed that exchange rates have a linear relationship with balance of trade. As such (after augmenting with other explanatory variables) we have the following specification:

$$TB = \alpha_0 + \alpha_1 MS + \alpha_2 RGDP + \alpha_3 EXR + \alpha_4 NEER + \mu \quad (2)$$

where TB is trade balance, MS is money supply, RGDP is real gross domestic product, EXR is external reserves, NEER is nominal effective exchange rate, μ is a random error term, α_0 is the constant, and α_1 , α_2 , α_3 and α_4 are coefficients to be estimated. The *a priori* expectations are: α_1 and α_3 are less than zero where as α_2 and α_4 can be negative or positive.

The natural logarithm transformation of equation (2) is:

$$ITB = \alpha_0 + \alpha_1 lMS + \alpha_2 lRGDP + \alpha_3 lEXR + \alpha_4 lNEER + \mu \quad (3)$$

Equation (3) will be estimated if the results from equation (2) are not satisfactory.

We have the following hypotheses in relation to the explanatory variables:

- (a) Money supply: this is the M2 money supply. A deficit in the balance of payment signifies excess money supply relative to money demand, while a surplus balance of payment exists when there is excess money demand relative to supply (Pilbeam, 2006). This implies a negative relationship between trade balance and money supply.
- (b) External Reserves: in a fixed exchange rate regime, when the monetary authorities sell the domestic currency, it leads to a rise in the reserves in foreign currency. If the authorities buy the domestic currency, they do so with foreign currency and so the reserves fall. To prevent a devaluation of the currency, the authorities have to intervene to purchase the domestic currency and the external reserves start to decline. Thus we postulate a negative relationship between external reserves and trade balance.
- (c) Real Gross Domestic Product: a devaluation or depreciation of a currency definitely changes the level of income of domestic economic agents. According to the absorption approach to the balance of payments, the effects of devaluation on the current

account balance will depend on how it affects national income relative to domestic absorption. Depreciation that leads to a higher domestic income improves the current account balance. The Mundell-Fleming model sees income as absolutely raising absorption, hence, it concludes that the higher the level of national income the smaller will be any current account surplus. This leads to the postulation of positive or negative relationship between income growth and trade balance.

- (d) Nominal Effective Exchange Rate: from economic theory a depreciation of exchange rate brings about an improved trade balance. However, according to the elasticity approach and the absorption approach to the balance of payments this is only possible if the Marshall-Lerner condition is satisfied. A decrease in the NEER indicates depreciation in the value of the naira. This should make Nigeria's exports more competitive and therefore stimulate non-oil exports. In the same vein, a depreciation should result in an increase in the price of imports and therefore constrain imports demand. The expectations are both negative and positive relationships between trade balance and nominal effective exchange rate.

4.3 Results and Discussion

Table 3 shows the augmented Dickey-Fuller test results. Time series data on trade balance, external reserves, and nominal effective exchange rate are stationary at first difference whereas money supply and real GDP are stationary at levels. The covariance of MS and RGDP remain constant over time.

TABLE 3 - *Augmented Dickey-Fuller Unit Root Test Results*

Variable	At Level	At First difference	Order of integration	Lag Length
TB	-2.439867	-3.497942	I(1)	1
EXR	-1.367109	-2.726792	I(1)	1
MS	3.028248	0.010315	I(0)	1
NEER	-0.84233	-3.241531	I(1)	1
RGDP	3.110297	2.359389	I(0)	1

Source: Authors computation using EViews.

Given the outcome of the unit root test we are justified in testing for co-integration. Table 4 shows the test results from the Johansen

(1988) procedure revealing the existence of two co-integrating equations. The necessary condition to use the error correction model is the existence of at least one co-integrating equation.

TABLE 4 - *Johansen Co-integration Test Results*

Eigen value	Trace Statistic	5% Critical Value	Prob**	Hypothesized No. of CEs
0.908758	142.0247	69.81889	0.0000	None*
0.679750	65.40886	47.85613	0.0005	At most 1*
0.455204	28.97191	29.79707	0.0620	At most 2
0.244834	9.536916	15.49471	0.3180	At most 3
0.017064	0.536916	3.841466	0.4580	At most 4

Note: * denotes rejection of the hypothesis at 5 per cent. Trace statistic indicates 2 co-integrating equations at 5 per cent.

The parsimonious error correction model results (see Table 5) show that MS, NEER and RGDP have a negative relationship with

TABLE 5 - *Parsimonious Error Correction Model Results*

Dependent variable: D(TB)

Variable	Coefficient	t-statistic	Probability
C	-8581.325	-0.15517	0.8782
D(EXR)	0.594012	6.564608	0.0000
D(EXR(-1))	0.337219	3.151781	0.0050
D(EXR(-2))	0.304184	2.641818	0.0156
D(MS)	-.239332	-2.171115	0.0421
D(MS(-1))	-.563053	-4.560970	0.0002
D(NEER)	-1843.545	-0.712741	0.4842
D(NEER(-2))	-2483.592	-0.974851	0.3413
D(RGDP)	-0.480536	-0.411471	0.6851
D(RGDP(-1))	1.062095	0.898480	0.3796
D(RGDP(-3))	1.042468	0.842872	0.4093
ECM(-1)	-1.121418	-7.332414	0.0000

R-squared	0.952209	Mean dependent variable	11662.15
Adj R-squared	0.925924	S.D. dependent variable	764701.4
S.E. regression	208128.4	Akaike information criterion	27.60969
Sum squared resid	8.66E+11	Schwarz criterion	28.15935
F-Statistic	36.22615	Durbin-Watson statistic	2.00154
Prob (F- statistic)	0.00000		

trade balance. However, at lag 1 and 3, RGDP is positive implying that although their current impact on trade balance is negative, over

time RGDP has a positive impact. Similarly, EXR and its lags (1 and 2) are positively related to trade balance implying that in both the short-run and long-run EXR has a positive impact on trade balance. The coefficient of the error correction has the expected sign and is statistically significant. The speed of adjustment of the variables in the long-run to attain equilibrium is approximately 100 per cent. MS, NEER and RGDP in the short-run conform to *a priori* expectations but only RGDP negated *a priori* expectations in its lags. This also implies that an increase in RGDP does not lead to increase in absorption. Devaluation of the currency brings about a deficit in the trade balance. This is say the Marshall-Lerner condition in the Nigerian economy during the period of study. We confirm the cointegration relationship since the coefficient of ECM(-1) is significantly different from zero. The model has a good fit as 93 per cent of the variation in the trade balance is explained by the independent variables. The overall model is statistically significant with an F-statistic of 36.23 and the prob (F-statistic is 0.000). There is no serial correlation since the Durbin-Watson statistic is 2.

5. CONCLUSIONS AND IMPLICATIONS

This article provides empirical evidence on the impact of exchange rate movements on Nigeria's trade balance using modern econometric procedures. External reserves and real GDP are positively related to trade balance. NEER has a negative but statistically insignificant relationship with trade balance. This implies that devaluation increases current account balance. The negative impact of real GDP on trade balance portrays that increases in income leads to increases in absorption. Thus for the study period, higher levels of national income meant higher levels of importation of goods and services. Exchange rate movements and money supply are major factors in the determination of trade balance in Nigeria.

The government should encourage production, trade and commercial policies that will lead to sustaining a stable effective exchange rate. The government should estimate the level of the marginal propensity to absorb in the domestic economy so that the behaviour of individuals concerning the importation of goods and services will be effectively checked.

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ABSTRACT

The objective of this study is to examine the impact of exchange rate on Nigeria's trade balance. Time series data on trade balance, external reserves, exchange rate, money supply and real GDP were used in the analysis and the data were subjected to unit root tests to determine their time series characteristics. Modern econometric procedures were used to provide empirical evidence. The error correction model results show that money supply, effective exchange rate and real GDP are negatively related to trade balance. Also external reserves is positively related to trade balance. Exchange rate movements and money supply are major factors in the determination of trade balance in Nigeria. The model has a good fit and 93 per cent of the variation in the trade balance is explained by the independent variables. Policy makers should encourage production, trade and commercial activities that will lead to sustaining a stable effective exchange rate.

Keywords: Exchange Rate, Trade Balance, Real Growth, Money Supply
JEL Classification: C01, C22, E51, F14, F31, F43

RIASSUNTO

L'impatto delle variazioni dei tassi di cambio sulla bilancia commerciale della Nigeria

Lo scopo di questo studio è esaminare l'impatto dei tassi di cambio sulla bilancia commerciale della Nigeria. Sono stati usati nell'analisi dati *time series* sulla bilancia commerciale, le riserve esterne, i tassi di cambio, la liquidità e il PIL lordo e i dati sono stati sottoposti a test di radice unitaria per determinare le loro caratteristiche. Avanzate procedure econometriche sono state applicate per fornire evidenze empiriche. I risultati dei modelli di correzione dell'errore mostrano che la liquidità, il tasso di cambio effettivo e il PIL reale sono negativamente correlati al saldo della bilancia commerciale. Inoltre le riserve esterne sono positivamente correlate alla bilancia commerciale. Le variazioni dei tassi di cambio e la liquidità sono i fattori maggiormente determinanti nella bilancia commerciale nigeriana. Il modello è robusto e il 93 per cento delle variazioni nella bilancia commerciale sono spiegate dalle variabili indipendenti. La politica economica dovrebbe incoraggiare la produzione, il commercio internazionale e le attività commerciali che portano a sostenere un tasso di cambio reale stabile.