World Academy of Science, Engineering and Technology
International Journal of Economics and Management Engineering
Vol:8, No:9, 2014

Currency Boards in Crisis: Experience of Baltic Countries

Gordana Kordić, Petra Palić

Open Science Index, Economics and Management Engineering Vol:8, No:9, 2014 publications.waset.org/9999374.pdf

***Abstract*—**The European countries that during the past two decades based their exchange rate regimes on currency board arrangement (CBA) are usually analysed from the perspective of *corner solution* choice's stabilisation effects. There is an open discussion on the positive and negative background of a strict exchange rate regime choice, although it should be seen as part of the transition process towards the monetary union membership. The focus of the paper is on the Baltic countries that after two decades of a rigid exchange rate arrangement and strongly influenced by global crisis are finishing their path towards the euro zone. Besides the stabilising capacity, the CBA is highly vulnerable regime, with limited developing potential. The rigidity of the exchange rate (and monetary) system, despite the ensured credibility, do not leave enough (or any) space for the adjustment and/or active crisis management. Still, the Baltics are in a process of recovery, with fiscal consolidation measures combined with (painful and politically unpopular) measures of internal devaluation. Today, two of them (Estonia and Latvia) are members of euro zone, fulfilling their ultimate transition targets, but de facto exchanging one fixed regime with another.

The paper analyses the challenges for the CBA in unstable environment since the fixed regimes rely on imported stability and are sensitive to external shocks. With limited monetary instruments, these countries were oriented to the fiscal policies and used a combination of internal devaluation and tax policy measures. Despite their rather quick recovery, our second goal is to analyse the long term influence that the measures had on the national economy.

***Keywords*—**Currency Board Arrangement, internal devaluation, exchange rate regime, Great recession.

I. Introduction

CURRENCY Board Arrangement has been a rather controversial exchange regime for decades of its use in a "modern" version, not only because of its commitment to a hard fix. Its' rigidity does not contribute to the economic development while one of the main demands for a central bank is maintenance of a foreign currency coverage (generally is at least 100% of broad money supply). This rule limits the central banks' ability to create money above the foreign reserves. Consequently, the central banks' activities are reduced while its structure is described in literature as simple and transparent, developing a mechanism to avoid the political pressures [1]. That is why it is usually entitled a *warehouse* institution that only ensures the parity between reserve and national currency. So, although a CBA is considered a sovereign monetary system with independent national central bank, in practice it is a passive institution, significantly different from the modern central bank. Comparison between the two institutions is provided in [2]. These restrictions are compromises made in order to retain the stability of national monetary system. The European CBAs' are now euro zone members and/or accession countries that used the hard fixed regime during the most of their transition period.

The rigid internal rules leave the CBA seriously vulnerable to external shocks. Stability of main monetary indicators (interest rates, inflation) might hide the structural weaknesses. That is one of the reasons why CBAs have seriously limited manoeuvre space in terms of crisis, while the measures are usually connected with the unpopular, painful restrictions designed in order to fiscally consolidate the state. Since hard fixers are not able to adjust the level of national exchange rate and improve export competitiveness, the solution on disposal is internal devaluation. In other words, lowering the prices (primary the price of work (wages and pensions)) and widening the tax burden aimed at improving the national competitiveness while the exchange rate remains stable.

The international economic environment till 2007 was stable and, in combination with internal stability and positive perspective of European Union membership, generated strong capital inflows in observed countries contributing to the GDP growth. But the Great recession caused sharp GDP declines, raising unemployment, budget cuts, adjustment in the real sector and restriction measures. Still, the nominal exchange regimes in observed countries remained unchanged while the other channels were used for adjustment. Despite the signs of recovery, consequences are long term and visible in many, not just economic, aspects.

II. Currency Boards in Unstable Environment

A. Theoretical Background of the Currency Board Arrangement as an Exchange Rate Regime

As a typical hard fixed regime, according to the simple version of impossible trinity model currency board arrangement (CBA) gives up the national monetary sovereignty in order to import stability in terms of free capital market. CBA is based on the commitment to the exchange rate stability and full convertibility of national currency with FX reserves [1], [2]. This is not a widely used system, at least not as a *de jure* commitment. In *de facto* classification it can be observed also within the managed floating regimes that has exchange rate stability as an intermediate goal, as in [3]. Still, the CBA should not be considered a variant of dollarization, although the level of unofficial dollarization in these countries

Gordana Kordić, Ph. D. is with the Faculty of Economics and Business, University of Zagreb, Zagreb, 10 000 HR (e-mail: gkordic@ efzg.hr).

Petra Palić, M. A. is with the University College Nikola Zrinski, Zagreb, 10 110 HR (e-mail: petrapalic@yahoo.com).

is usually rather high. The motivation for CBA introduction (instead of official dollarization) is an attempt to, at least partially, use the potentials of monetary sovereignty. Ideally, it would be widen later but in practice the CBA is usually just a phase towards the monetary integrations. Remaining national central bank and a national currency, as visible signs of monetary sovereignty, leaves its exit strategy open that is not the case in dollarized countries [4]. The inflation rate is low providing a stabile framework for restructuring national economy and shallow banking system. Special role is given to the national fiscal policy while, considering the monetary policy rigidity, the fiscal debts need to be under control. But, the cornerstone of a hard fixed regime is the import of external stability. In terms of unstable environment the system has simultaneous problems of rigidity that enables exchange rate adjustments and a crisis as an external shock. Important part of the strategy is then flexibility of different aspects of national economy, while the abandonment of national regime is a last solution that, especially in hard fixed regimes, usually ends in a currency crash, generating high costs, deepening the existing problems and causing a long period of recovery.

The crisis measures for hard fixers, besides the fiscal policy instruments, include flexibility of prices and wages that, in combination with factor (primary labor) mobility, should serve as shock absorbers. Reactions on such external shock will be visible in high unemployment rates, growing external debt, raising tax pressures, etc. with long term consequences in social, demographic, political etc. imbalances and long term stagnation of national economy.

B. Motivation and Obstacles for Choosing a Currency Board Arrangement

The countries that used a CBA in modern terms were or young economies, those that have just left wider unions (like the Baltics) and/or were in strong crisis (Bulgaria, Bosnia and Herzegovina) where a corner solution was a chance to make a quick stabilisation. Their main goal was not to develop a pro-active national monetary strategy but to obtain and retain the stability of the system till the full membership in (European) monetary union. Despite its rather positive gains in modern practice, discussions on real benefits of CBA are permanent. Furthermore, the crisis of global economic system opens new aspects on the discussion of the fragility of these regimes. But, even in the stable terms, there is a long list of factors that either are a motivation or are an obstacle for CBA use.

The strong commitment to the stability goal attracts foreign capital in the banking system that have positive effects (fostering the banks in a quick transformation into institutions of the market economy), but also makes a system, without a *lender-of-last-resort* function and a shallow financial market, more vulnerable to crisis. The fiscal policy of the state thus needs to be conservative, preserving the country from a debt crisis. The potential dangers for the stability arise from external shocks, especially when a reserve currency is unstable. In such circumstances the CBA either does not have measures that would not endanger the roots of the system nor does it have efficient instruments to avoid the external shock. Abandoning the regime that has a strong administrative background in turbulent periods on international market would be a dangerous test of its real stability. On the other hand, measures that are on disposal are based on correction of prices and wages in combination with fiscal tightening. That is why they are unpopular, painful and have strong negative effects on individual balances.

During the transition period, former members of the centrally planned economy of Soviet Union, Estonia, Lithuania and Latvia, were usually seen as good candidates for CBA and perspective EMU members. Their CBAs' were based on the euro (in German mark, and SDR before the introduction of euro) and two of three are now in the euro zone. They managed to survive the shock of Great Recession without abandoning the exchange regime. According to the Maastricht Treaty during the transition period it is necessary to fulfil the four convergence criteria. Also, based on the optimal currency area theory, real convergence is essential because it refers to the similarity of the real structure and business cycles in countries that have introduced a common currency [5].

Generally, hard fixed regimes are not easy to abandon without significant costs. The internal rigidities become even more dangerous in terms of external shock. The CBA should be used as a transition phase to a system with higher level of sovereignty or a monetary union. Both solutions are optimistic and consider benefits of timely limited sacrificing the developing potentials of national exchange rate policy in order to generate stability and then change the conditions. Introducing a CBA the national economy *de facto* forms a quasi monetary union with the reserve currency country. In terms of crisis one of the basic prerequisites of the system (imported stability) is endangered. On the other hand, the arrangement is based on a hard fix, so the real stability is doubtful.

At the end of the 2008, and during 2009 serious problems appeared in the functioning of EMU. The fundamental problem is that the new members of the euro zone had no influence on liquidity by monetary policy measures since the policy is managed by the European Central Bank (ECB). They were only able to conduct the fiscal policy in their countries in order to resolve the problems of budget deficits, which often led to situations where they had to decrease salaries and pensions which had a negative impact on real income and standard of living [5]. The Baltic countries are best example of small economies, open both to foreign capital and international trade that suffered the full impact of the economic crisis, and their solutions included rigorous fiscal policy measures.

III. Crisis Strategy for a Hard Fixed Regime

One of the basic dangers for hard fixers is the sensibility and response to crisis. As mentioned above, the problems are a combination of high costs of abandoning the regime, external imbalances and/or external shock (resulting in sudden stop of capital inflows) and national rigidities that leads to the loss of competitiveness on global market. In most cases national authorities are not willing to change the exchange rate regime

Open Science Index, Economics and Management Engineering Vol:8, No:9, 2014 publications.waset.org/9999374.pdf

Open Science Index, Economics and Management Engineering Vol:8, No:9, 2014 publications.waset.org/9999374.pdf

and increase the level of flexibility, risking the nominal stability for the uncertain future gains. The devaluation of the nominal exchange rate as an instrument of improving the external position is not a desirable option, especially in economies with inflation history. On the other hand, regime based on the fixed nominal exchange rate requires a mechanism of price adjustment in combination with fiscal stability and flexibility in other sectors (primary on labor market that should include also a diversified production structure). However, most hard fixers do not satisfy these preconditions and, despite the exchange rate stability, have developing obstacles in their economic structures. The most important issues in their crisis strategies were the nominal and real exchange rates, determining the competitiveness of national economy and its international trade potential.

There is a wide discussion on the choice between internal and external devaluation [6]. External devaluation is the most common way of positive influence on external competitiveness by decreasing the value of national currency (using the nominal exchange rate), attempting to improve the national competitiveness. Still, this measure might be a start of losing the credibility of national policy, especially in highly dollarized economies with inflation history. On the other hand, there is also the internal devaluation that does not influence the nominal exchange rate. The effect is achieved by decreasing the costs in combination with fiscal consolidation. Measures on the labor market side might include a combination of different policies: loosening the legislation (cancelling the syndicate contracts and lowering the guaranteed price of work (if exists), easing the procedures for cancelling the contracts etc.) with tax measures (lowering the labor taxes and stronger taxation on consumption, introduction of new taxes on property, etc.) and fiscal consolidation. Although a number of hard fixers used such policies in order to avoid changes of nominal exchange rate, there is still a discussion on their effectiveness. Despite the commonly mentioned positive influence of devaluation on competitiveness there are many obstacles on the development of this strategy in practice. Such a policy have strong negative side-effects in terms of higher unemployment, lower living standards and worsening the personal balances, negative demographic trends, political instability, etc.

A. Economic Indicators in the Baltic Countries in the Period from 2003 to 2013

After gaining the independence, and especially after entering the European Union, the Baltic countries had realized steady growth of their economies. The worst year for these countries, as for overall global economy was the 2008, when financial crisis peaked.

The post-crisis recovery of the Baltics started in the second half of 2009. Also, during the period from 2010-2012 there was an increase in real annual growth on average more than 3.5 percent. At the beginning of the recession, the increase of the economic activity was caused by the strong and rapid growth of exports. Although the 2009 was still critical due to the large decline in exports, there were changes in period from 2010 to 2014, when export was significantly higher. The domestic demand has increased, particularly investment growth. Substantial progress has been accomplished, especially those made on current accounts. An important indicator was a deleveraging process of private sector that in combination with the growth of nominal income led to substantial domestic and foreign debt decrease. In 2010 there has been a significant improvement in the cost competitiveness, and the trend continued from 2010 till 2013. During that time, there have been positive changes towards the fiscal consolidation.

The economic development of Baltic countries may be divided in two parts: first period started in 2000 and lasted till 2008, and second from 2008 till today. The period from 2000 to 2008 was an economic expansion of the Baltic countries. Macroeconomic indicators are showing remarkable results for that period of time.

Strong GDP growth in these economies was based on increase in production capacity stimulated by successful structural reforms and with strong capital inflows from EU funds. Also, during the expansion period fiscal policy had an important stabilization role. The main generator of pro-cyclical trend was extremely high inflow of capital through the banking sector, which resulted in a rapid growth of credits. On the supply side, these inflows were mainly supported by optimism in the overall economic growth in the region. Small and rather shallow markets with strong connections to the Nordic countries (whose banks have spread its influence) partly explain the nature of capital inflows.

During the period observed, Nordic banks have determined aggressive business strategies in gaining market share by adjusting the nominal interest rates and credit policies in order to gain a market share. The impacts of capital inflows in the pre-crisis period were magnified through several well-known channels. At the beginning, expectations from capital inflows were positive, leading to the GDP growth. Furthermore, the level of wages and prices (especially real estate prices) increased, followed by improvement in living standards. Consequently, there was a strong impact on investment and consumption, which led to even greater expectations of growth in the future. The increased wealth of the population has led to additional loans to households and businesses. As well, this trend had effect on the real interest rate activity channel [7].

Besides these activity channels, fiscal policy had strong impact on the Baltic countries during the period of national economies' expansion. Despite the nominal GDP growth and pro-cyclical fiscal revenues, the ratio of government balance and GDP was weakly improved. At the same time there was a parallel expansion of general government expenditure. Among the indicators observed, the majority of growth was generated by salaries. In the period from 2004 to 2008 average nominal wage growth in Lithuania was 26%, in Latvia 21% and in Estonia 14%. Since, while the labor productivity growth was slower and the exchange rates were fixed, the competitiveness of their economies weakened. Due to the continued deterioration of the macroeconomic fundamentals, main foreign investments failed. On the other side, there was

overgrowing of non-tradable sectors such as retail and construction. Finally this situation led to current account deficit and high dependence on inflows of foreign funds. That was serious indicator of vulnerability, especially when the financial crisis spread around the Europe. At the same time, problems in real sector adjustment in terms of growth fuelled by capital inflows are typical for hard fixed regimes. This is usually not recognised as a problem in its early stages, while the national authorities are still successful in fulfilling their basic goal (stability). Furthermore, the costs of abandoning a hard fix are high, partly because they occur after a longer period of stagnation and the exit strategies are not developed. Foreign investments are oriented to the sectors that are profitable in the short run and do not demand high initial capital investments (financial industry, retail, real estate sector, etc.) but these sectors generate little added value and are endangered if a sudden stop in capital inflows occurs.

Fig. 1 presents trends in minimum wages in the observed countries [8].

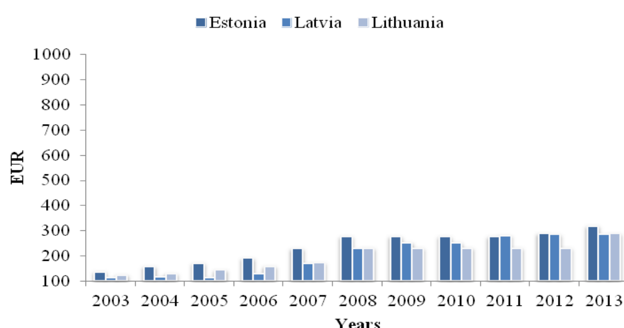

Fig. 1 Minimum wages, EUR/month

On Fig. 1 there are data for minimum wages (EUR/month) for the 2003-2013 period. Despite their positive trend, they are still significantly lower comparing to the other EU countries, especially considering the developed countries' minimal wage of around 1.200 € [8].

The recession didn't occur in all Baltic countries at the same time. Credit boom was stronger in Estonia and Latvia, so these countries experienced recession in the second half of the 2007, while Lithuania faced recession in the last quarter of the 2008. After 2008, decline in investment was marked. The recession was visible mostly in the real estate sector, where prices had fallen sharply. After declaring the recession in September 2008, there was a decrease of foreign direct investment and exports in the Baltic countries, especially in the financial sector. Regarding to external factors, the increase in risk aversion and growing liquidity problems on the interbank market has caused financial problems, with an emphasis on liquidity in the Nordic banks. Negative shock reflected on other European countries that were important trading partners of the Baltic countries, for example in Sweden, Finland and Russia. Because of the above mentioned facts exports of goods and services in the Baltic countries fell in 2009 by more than 15% comparing the previous year [7]. The global crisis resulted in a major vulnerability of the Baltic economies and imbalances in their financial sectors. Latvia faced a strong deposits outflow by non-residents that resulted with international financial aid inquiry. Trends of export of goods and services (as a percentage of GDP) are presented in Table I [8]. The overall data did not show the significant change but it need to be considered the strong fall in the GDP during the recession period also.

TABLE I
SHARES OF EXPORTS OF GOODS AND SERVICES IN THE TOTAL WORLD EXPORTS

	Latvia	Lithuania	Estonia
2004.	0.05339	0.10360	0.07739
2005.	0.05892	0.11555	0.08634
2006.	0.05946	0.11930	0.08980
2007.	0.06887	0.12188	0.09015
2008.	0.07105	0.14276	0.08935
2009.	0.07033	0.12686	0.08418
2010.	0.06711	0.13143	0.08565
2011.	0.07313	0.14855	0.09972
2012.	0.07717	0.15716	0.09578
2013.	0.07914	0.17249	0.09594

Reference [9] shows that the share of exports of goods and services in national GDP was rather stable during the recession years, but the growth in 2010 and 2011 was a result of higher growth of exports than of GDP rate.

From 2010 till today, Baltic economies slightly recovered from the recessions and crisis they have faced. But, the improvement was achieved by major costs cuts and fiscal policy counter-cyclical measures. The fact that Latvia, at the beginning of this year, has entered the euro zone and Lithuania is expected to enter in 2015, is usually seen as a good indicator for this small and open economies and their recovery. The question that arises from above mentioned includes the long term consequences of a strong external shock, such was the Great Recession.

B. Crisis and Post-Crisis Euro Zone Problems: Impact on the Baltic Countries

The economies of the former socialist countries, despite their formal stability at the time when the crisis occurs, were even more vulnerable than the euro zone. Their institutions (including the weak regulative framework), relatively young and still underdeveloped, were highly dependent on European advanced economies. In the process of liberalization, it is important to point out that there was a significant increase in the share of foreign trade with EU member countries. On the other hand members of the EU-15 were the most important investors in the new member countries. Consequently, the banking system is owned by foreign capital, which resulted in high growth of credit rates oriented primary on consumption, so the final result was current account deficit of balance of payments and external debt growth – as a result, the economy overheated. At the moment of crisis, 87% of the banking sector of the new member states in the EU was owned by the foreign banks. This proportion was significantly higher for countries that didn't have their own domestic banking sector. Countries that were particularly highlighted in these

Open Science Index, Economics and Management Engineering Vol:8, No:9, 2014 publications.waset.org/9999374.pdf

Open Science Index, Economics and Management Engineering Vol:8, No:9, 2014 publications.waset.org/9999374.pdf

circumstances in the period from 2005 till 2008 were Romania, Slovakia and Estonia [10].

Members of the euro zone were under the sever impact of the global financial crisis. Situation was even worse because of unfavourable loan/ borrowing conditions. The question that is arising from the before-mentioned was can the Euro zone survive this (and similar) crisis. Ten years after introducing the euro, many countries have exceeded the limit of the budget deficit and public debt. Is it possible to provide better options (such as issuing Eurobonds) for national funding? Crisis always raises the question of EMU justification functioning on the existing foundations and criteria. Very important issue is fixed exchange rates in accordance with EMU. Countries that have entered into EMU lost the possibility to conduct an independent monetary policy. At the same time, EMU membership provides protection from EU institutions and European Central Bank – that is, the possibility of getting counseling, financial aid and help for preventing the impact of the crisis on the exchange rate because in countries that are not in the EMU strong depreciation of the national currency might appear. Because of the new circumstances, EU had to react as one economy, which implied joint action in order to provide adequate assistance to these countries. Crucial role was on European Central Bank, which has helped emerging European countries. As previously described, countries with fixed exchange rates in a situation of crisis are cutting wages and cost while facing a deep recession [5]. Baltic countries were between those EU members with a 10% decrease. In time when crisis occurred, suggestions were that the EU should develop three politics in order to support stability and growth in the countries of Central, Eastern and Southeastern Europe. Emphasis was on the adjustment of exchange rates of countries with unsustainable current account deficit, especially for the hard fixed regimes. Furthermore, there was a strong support for the implementation of counter-cyclical fiscal policy because the public expenditure decreased, while fiscal deficits increased due to negative growth rates.

Countries in transition were in specific situation, since their banking systems were owned by the foreign capital but that proved to be an advantage in the recovery from crisis. Foreign ownership of the banking system helped the Baltic countries to recover impressively. The European Union membership was a crucial factor why foreign banks continued to lend to countries in transition, as well to Estonia, Latvia and Lithuania. In 2012 in Vienna, an agreement with regulators of the European Union was concluded, and aim was to prevent the closure and liquidation of bank subsidiaries [10].

The Baltic countries reacted in a similar way during the crisis, using fiscal over monetary policy measures. Fears of inflation and CBA rules forced Estonia, Lithuania and Latvia to use the strategies based on fiscal contraction, reductions of consumption and imports and thereby reduction of the production and investment.

According to the statistical data, there were few quick changes on the labor markets. First they responded with temporary layoffs and then with re-employment, but also by lowering wages and increasing again. In the 2009 compared to 2008, unemployment in the Baltic countries more than doubled, but in the 2011 the trend reversed. Also, compared to the previous year, compensation for employees in these countries drastically reduced during the 2009. Flexibility on the Baltic labor market, in combination with well educated work force, enabled an increase in economic activity, investment and exports. The recovery of exports and investment, despite the real reduction of individual income, has led to the increase in income of the whole society, which was followed by strengthening the domestic demand. Many analysts believe that cutting wages and social transfers were the reasons why Baltic countries relatively fast came out from the crisis. However, the fiscal measures and cuts affected an increase of unemployment rate, but in the long-term, fiscal measures had a major impact on the recovery of the Baltic economies.

IV. Conclusion

The CBA arrangements of the Baltic countries survived the crisis, transforming them into the euro zone membership. Despite the discussions on their efficiency in fulfilling any goal but providing stability, these countries survived the crisis even better than some other EMU members, especially comparing with the EU periphery countries.

Analyzing the economic indicators on the example of Baltic countries, the question we should take in consideration is what consequences of relatively fast exit from the crisis have left on their economies. Although the data anticipates positive trends, it can be concluded that it was achieved by major cuts in the fiscal policy, increasing taxes and reducing public expenditure. As well, the salaries were reduced which has influenced departure of young people from the Baltic area. Unfortunately, growth and positive economic trend has been achieved on the burden of workers (layoffs) and on the reductions of wages. That is why that, even after the financial crisis, the focus of the strategy needs to shift towards solving the negative consequences of crisis, such are the unemployment (especially within the younger population that has just entered the labor market), negative demographic trends etc. After the crisis shock, the problems remained in other aspects, indicating that the recovery will be long-term, requiring politically, socially and economically complex strategies.

References

[1] H. Hanke and K. Schuler, *Currency Boards for Developing Countries*, A Handbook, 2000.

[2] A. R. Ghosh; A-M.Gulde, C. H. Wolf: *Exchange Rate Regimes: Choices and Consequences*, 2002., MIT

[3] International Monetary Fund, *Annual Report on Exchange Arrangements and Exchange Restrictions*, 2013.

[4] K. Schuler: „What Use is Monetary Sovereignty“ in *The Dollarization Debate* (edts: D. Salvatore, W. J. Dean, D. T. Willet) Oxford University Press 2003., pp. 140-153.

[5] I. K. Škabić and A. Mihaljević, „New Member States of the EU and EMU – Convergence and the Financial Crisis“, *Ekonomski vjesnik*, No. 1/2010., pp. 12-26.

[6] A. R. Ghosh, S. M. Qureshi and Ch. G. Tsangarides, "The Cost of Tying One's Hands", *IMF Finance & Development*, June 2014., pp. 43-46.

[7] A. Hansson, M. and Randveer, M.,"Economic Adjustment in the Baltic Countries", *Working Paper of Eesti Pank,* No.1/2013
[8] Eurostat database
[9] A. Matysek-Jędrych; "Competitiveness and Crisis – The case of Baltic States Economies", Working Paper, Faculty of International Business and Economics Poznan University of Economics,WP/2012/01
[10] I. T. Berend, *Europe in crisis*; Routledge, New York, 2013.

Open Science Index, Economics and Management Engineering Vol:8, No:9, 2014 publications.waset.org/9999374.pdf