# TOWARDS COMMON ECONOMIC AND MONETARY UNIONS 

MARTIN HUDEC ${ }^{1}$ - ZUZANA OKASOVÁ ${ }^{2}$

## Smerom k spoločným ekonomickým a monetárnym úniám

Abstract: Nowadays, there exist numerous fiscal courses of action between countries that are far expelled from the Eurozone somewhat deficient money related union, but then, likewise take after tenets, and oblige the national financial arrangements of the members. One such course of action is a settled conversion scale framework. A few cases of such settled swapping scale frameworks in the Second War time frame are the Bretton Woods framework of monetary management, established in the mid-20th century, and the ERM-II, established in 1979 as the European Monetary System. Numerous nations on the planet peg their cash to another, specifically to the dollar. In Europe, various nations peg their monetary standards to the euro (meeting convergence criteria namely, Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, and Sweden or with an opt-out - Denmark). By doing that, they enable fragmented fiscal unions with the nation to which they peg. Unmistakably, these are monetary related unions, which are considerably more fragmented than i.e. the Eurozone. Naturally, we should distinguish between an inadequate and a full monetary union, or in other words, the fiscal union where every part nation keeps up its own free budgetary approach and the budgetary unification. The aim of our research paper is therefore to analyze selected issues related to different convergence processes towards monetary unions.
Keywords: credibility, current account deficit, fixed exchange rate system, inflation, monetary growth, exchange rate regime
JEL Classification: A 13, O 4, O 10

[^0]
## Introduction

Monetary and fiscal policies are fundamental tools of the state's economic policy. Monetary policy is usually in the hands of a politically independent central bank in the Western world, and in particular concerns the influence of the key short-term interest rate, with which the central bank seeks to achieve price stability (defined inflation target), stable economic growth and full employment. The official objectives and their relative importance vary between individual banks. Fiscal policy refers to the choice of taxes (what they pay for and how much they are), government spending (what is their total height and structure, such as how much goes to education, science, health, etc.) and managing their inconsistencies (i.e. in the form of deficit) using government debt. Fiscal policy is in the hands of the Treasury, the State Treasury or their equivalent. A currency union (i.e. monetary union vs. economic union ${ }^{3}$ vs. fiscal union ${ }^{4}$ ) means two or more countries using the same currency as a type of a trade block, however without the necessity to share any other interaction such as common/single market or customs union (informal, formal, formal with common policy) [1].

One normal component of fixed exchange rate administrations, as deficient money related unions regimes, is that over the long run the vast majority of them have a tendency to break down after some emergency. The Bretton Woods framework ${ }^{5}$ broke down in 1973 (however, on 15 August 1971, the United States unilaterally ended up convertibility of the U.S. dollar to gold, which meant bringing the BW system closely to its end and rendering the U.S. dollar a fiat currency), as did the conversion standard component ERM-I [12]. Similarly, numerous nations pegging their cash to another were hit, mostly by speculative crisis. These emergencies frequently ended up in the peg being relinquished. Late cases represent the Southeast Asian monetary forms ${ }^{6}$, Asian Pacific Currencies, French Franc Zone in Africa, Caribbean Currency Union, which were also hit by speculative crisis in 1997-8 (Figure 1). A considerable number of these nations deserted their peg to the dollar. Comparable emergencies included Latin American monetary forms in the 1990s. Likewise, in 2007-8, European nations pegging to the euro additionally got into inconvenience in the consequence of the monetary related emergency.

[^1]Figure 1
The 1997 Asian Financial Crisis


Source: [7].
The delicacy of a settled conversion scale framework needs to do with two elements of a settled swapping scale framework. To start with, there is the credibility issue. At the point when the government of a nation declare that they will settle the conversion scale they are making a guarantee, since they promise to keep the swapping scale settled today and later on. The issue with any guarantee, notwithstanding, is that questions may emerge in the matter of whether it will be kept. At the end of the day, all guarantees prompt issues of validity. Why might nations need to backpedal on a guarantee they made previously? Most likely, when they vowed to settle the swapping scale they more likely than not considered that it was to their greatest advantage to do as such. The appropriate response is that conditions may emerge in which the settled conversion scale course of action stops to be viewed as serving the national enthusiasm. All things considered, the nation will have a motivating force to renege on its guarantee. Financial specialists will presume this and
will assault the money. We at that point have a speculative attack. The second component of a settled conversion scale framework that prompts incredible delicacy emerges from the way that nations on a settled swapping scale have a constrained load of international preserve - exchange to safeguard the settled rate [3]. Subsequently, the guarantee to change over local cash into outside money at a settled swapping scale cannot be ensured in the light of the fact that the national bank has a lacking measure of foreign trade. As speculators know this, they will end up being apprehensive to the point at which they see that the supply of global reserves gets drained.

## 1 Methodology

Based on the above-mentioned, we can see that the two elements of the great fragility (credibility issue and inadequate funds of international reserves) associate with each other as the constrained load of global stores lessens the validity, and the low credibility drives examiners to offer the household cash, compelling the national bank to offer foreign trade, accordingly draining the supply of international holds. This can be explained by a straightforward model that gets the embodiment of this delicacy, after a nation is on a settled conversion standard. Everything looks fine, until the point that an asymmetric economic shock occurs that prompts a decay of its present record. This situation could happen because of de-accelerated competitiveness activated by over the top residential wage increments. Subsequently, the nation thinks that it is harder to export, while imports increase in the light of the fact that outside producers are more aggressive. The current account shortage should be rectified after some time. Note that when a nation has a present record shortfall it spends more than it creates.

Thus, its remote obligation increases. This is unsustainable. The nation should remedy this shortfall. It has two approaches. One is to keep the conversion standard settled. All things considered, the experts should take after an arrangement gone for decreasing total spending. This can be accomplished by raising taxes, so that individuals and families have less discretionary cashflow to spend from or potentially decreasing government spending. This arrangement is probably going to be exorbitant for the legislature. In the first place, tax assessment prompts resistance of the populace, which may vote the legislature out of office. Second, a strategy of consumption diminishment will have the impact of lessening yield and expanding unemployment, particularly if wages and costs are unbending. In the event of being sufficiently solid, the nation may encounter a recession. Therefore, the aim of our research paper is to closely present the issue of fragility of different convergence ${ }^{7}$

[^2]processes towards monetary unions, having in mind the fixed exchange rate administration. The result of our research is firstly, the practical insight exposing the potential instability of monetary unions by demonstrating the effects of instability, arising from their incomplete construction and secondly, analyzing the question of how to make them more sustainable in the long run.

In order to accomplish our aim, we have constructed the following research questions:

- What are the basic types of currency unions?
- What are the consequences of fragility of a fixed exchange rate system?
- Is monetary union without a budgetary union fragile?
- How can an external disequilibrium be corrected?
- Does devaluation help the economy and, if yes, how?
- Is a current account deficit good or bad for the economy?
- What are the major ways out of the fragility in a monetary union?
- What are the signs of a good/bad equilibrium and how is it manifested?


## 2 Results and Discussion

### 2.1 Fragility of the Fixed Exchange Rate Regime: Correcting the External Disequilibrium

Policy of expenditure reduction means finding an approach to rectify for the outer disequilibrium (the present record shortage) can be comprised by devaluing the currency. This might be a less expensive approach to change in accordance with the present record decay. By cheapening, the exports are made more viable once more. The legislature may now be enticed to depreciate in the light of the fact that it is less expensive. These advantages emerge from the way that by depreciating, the administration abstains from increasing expenses and diminishes the danger of a retreat, which is exorbitant as far as yield and business. We expect that the more prominent the current account shock $(\beta)$, the higher is the advantage $(A)$ of devaluating. This is so since when the present record deficiency is high, the legislature should force higher duties and higher spending checks in the event that it does not devalue, because it likewise has costs $\left(C_{0}\right)$ - the loss of notoriety for a member state. We now find that the length of $\beta<\beta_{0}$ the settled conversion standard can be

[^3]kept tenable, i.e. the subjects understand that the state will not depreciate in light of the fact that the cost of losing notoriety surpasses the advantages of depreciating. In this way, for sufficiently small shocks in the current account ${ }^{8}$, financial subjects will expect that no cheapening will happen, which is borne out by the model. At the point when $\beta>\beta_{0}$, in any case, the advantages of a depreciating surpass the cost and along these lines the financial subjects will be enticed to depreciate the money. As financial subjects speculate this, they will greatly offer the domestic currency, compelling the national bank to offer outside trade. Speculators realize that this will prompt a consumption of the supply of international stores. Thus, their speculative assault will be large to the point that the supply of international stores will be drained quickly, constraining the national bank to cheapen the currency (Figure 2). As time passes by, the likelihood that some shock will surpass $\beta_{0}$ is positive and therefore, eventually nations are hit by an adequately substantial shock that makes the fixed exchange rate non-sound. It will then fall. Along these lines, settled fixed exchange rate cannot stand the progression of time [11]. This model is based on the idea that settled trade rates will unavoidably fall when the fiscal specialists seek after residential targets, for example, the adjustment of production and employment. At last, they will come up short on holds. Along these lines, a definitive reason for a remote trade emergency dependably lies with the government authorities seek after conflicting goals.

Figure 2

## Devaluation in Foreign Exchange Market \& Maintaining Multiple FE Equilibria




Source: Authors.
Things get more entangled, and all the more intriguing, when considering the instance of a nation for which $\beta<\beta_{0}$, i.e. the current account shock is little so that the cost of a devaluating surpasses the advantages. For this situation, no depreciation will happen and at the end of the day, the settled swapping scale is trustworthy and can be maintained. Does this imply no speculative emergency will happen? Not really. To see this, we now present another

[^4]advantage bend, which demonstrates the advantages of currency devaluation, if it is anticipated by speculators. Accept that for reasons unknown (i.e. since they trust there is a connection amongst sunspots and depreciations) speculators anticipate that the money will be cheapened. The government that wants to keep up the settled conversion standard should safeguard it against these examiners. Such a safeguard is, nonetheless, exorbitant. The government should increase assesses significantly more and the national bank should raise the loan cost. However, this is exorbitant and unfavorably affects production and employment. We demonstrate this in Figure 2 by two curves. One is drawn under the supposition that speculators do not expect depreciation $\left(A_{1}\right)$. The second curve $\left(A_{2}\right)$ is drawn accepting that speculators anticipate a depreciation, while the $A_{2}$ curve is situated over the $A_{1}$ curve, since at the point when a depreciation is anticipated (i.e. a speculative assault) the national bank should raise the local loan fee to guard the settled conversion scale administration. The expansion in the loan cost negatively affects production and employment, and is along these lines exorbitant. The need to raise the loan cost is missing when the depreciation is not expected, i.e. at the point when there is no speculative assault. Therefore, the preservation of a fixed exchange rate will be costlier for the government/s when depreciation is anticipated than when not.

It takes after that by debasing, more advantages can be gained when the cheapening was anticipated than when it was most certainly not. We now consider three shock related situations: a little one, an extensive one, and a moderate one. Let us initially take a little stun, when $\beta<\beta_{1}$. For this situation, there will be no cheapening on the grounds that the cost surpasses the advantages. Speculators realize this. Thus, they will not expect devaluation. Desires are steady with the result of the model. We have a no-downgrading balance, and the settled swapping scale is trustworthy. Note that as it is tenable; the investors will put resources into the domestic currency so that the current account deficit can be financed without much of a stretch. Furthermore, the extensive shock is the one when $\beta>\beta_{2}$. For this situation, the devaluation is sure on the grounds that the advantages surpass the cost. The settled swapping scale is not trustworthy. A downgrading is normal and this additionally occurs in the model. The governments will quickly lose their international reserves, compelling them to degrade. The truly intriguing case is the one when we have a moderate shock, when $\beta_{1}<\beta<\beta_{2}$. We now get two conceivable equilibria ( $E Q_{1}$ and $E Q_{2}$ ). At the point of $E Q_{2}$ speculators do not anticipate a cheapening (there is no speculative assault). Subsequently, the cost of depreciation surpasses the advantages. Therefore, the government or financial institutions have no motivating forces to debase, and they will not do as such. Subsequently, point $E Q_{2}$ is a balance that is predictable with the desires of the speculators, i.e. that there will be no downgrading and the national bank will
not need to raise the financing cost to safeguard the settled conversion scale. The financing of the current account deficit will be expected.

Moreover, the situation will be different at $E Q_{1}$, since now speculators anticipate a depreciation. Due to these desires, the advantages of degrading surpass the cost, driving the government to "degrade" the currency. Desires again are demonstrated steady. A downgrading is inescapable on the grounds that the national bank will come up short on international reserves. In this way, when the shock is moderate in measure, there are two conceivable equilibria that depend exclusively on the condition of desires. At the point when speculators do not expect a cheapening the government have no motivating force to speculators, so the conversion standard stays settled. Whenever, in any case, speculators expect a downgrading, the following theoretical assault makes a motivating force for the experts to downgrade, and there will be depreciation. Note likewise that desires are self-satisfying. It is adequate to expect a downgrading for the depreciation to happen. This makes the settled conversion scale course of action extremely delicate.

We have to realize that the presence of two equilibria eventually relies on upon the certainty that the national bank has a restricted load of international reserves. Let us assume the national bank had a boundless load of international reserves. All things considered, when a theoretical assault happens (speculators expect a depreciation) the national bank would dependably have the capacity to counter the speculators by offering a boundless measure of international trade. The national bank would continuously beat the speculators. The last would know this and would not begin a speculative assault. At the end of the day, they would not expect depreciation. Regarding Figure 2, the $A_{1}$ curve would correspond with the $A_{2}$ curve. There would be no extension for various equilibria. This does not imply that depreciations would not happen when the government has unending international reserves. For shocks sufficiently expansive, the government would lead to reason that devaluating the currency would be superior to not doing as such. As a result, they would devaluate. The fact of the matter is that when the specialists have no global hold requirement, they cannot be compelled to degrade by the examiners. On the off chance, that they cheapen this is the consequence of a willful choice [14].

The rightful question therefore is that by what method would countries be able to manage the delicacy of the fixed exchange rate, when being part of an optimum currency area monetary union? There are basically two courses "out". One is to move to a fiscal administration in which these speculative assaults on the trade rates are made outlandish by annulling trade rates and trade markets. This is accomplished inside a fiscal union. The second way out of the delicacy of the pegged conversion scale administration is to consider greater adaptability of the trade rates. In this manner, confronted with the
delicacy of pegged conversion scale administrations nations are enticed to move to one of two extremes - financial union or more swapping scale adaptability. Observational proof appears to affirm these bipolar flows, while the bipolar view does not meet with all-inclusive endorsement. Numerous nations oppose being compelled to pick between the two extremes. For a significant number of nations both of these extremes are not natural and thus, they have searched for an exit plan by re-forcing capital controls.

### 2.2 Expansion in a Small Open Economy

Adopting a single currency means a loss of autonomous monetary policy in favor of a common monetary policy, leading to the abandonment of a flexible exchange rate. These factors (autonomous monetary policy and flexible exchange rate) are considered in economic theory as instruments to stabilize an economy after suffering external shocks or as tool to ensure competitiveness. In other words, various optimum currency area properties (also called prerequisites, properties, characteristics, or criteria) have naturally emerged from the debate on the benefits of fixed vs. flexible exchange rate regimes, depending on the characteristics of the economy, while their fulfillment means a significant smoothing of the loss of autonomous monetary policy and a floating exchange rate by ensuring internal and external stability, reducing impact of shocks, and facilitating subsequent adjustment of the economy. Nonetheless, in the case of fixed exchange rate regimes, foreign currency loans may be generally cheaper due to a number of factors, including lower risk premiums, i.e. credit and liquidity risk. On the other hand, bearing in mind Economic and Monetary Unions, flexible exchange can also be seen a cause of high monetary growth rates and inflation. The choice of fixed vs. floating exchange rate regime can be a source of a substantial difference to the process influencing the rate of inflation especially in developing countries. Firstly, not only is cohesion to a managed exchange rate regime likely to be linked with a lower rate of monetary enlargement but secondly, it also leads in a lesser inflation ${ }^{9}$ naturally for a given rate of monetary enlargement at least from a short-term point of view, making these effects both economically and statistically compelling. This can be demonstrated by deriving the production function [2], assuming that the output in each sector is a log-linear function of employment of a single factor of production, $l$ :

$$
\begin{equation*}
y_{N}=\beta_{N} \cdot\left[l_{N}-1\right] \text { and } y_{X}=\beta_{X} \cdot\left[l_{X}-1\right] \tag{1}
\end{equation*}
$$

where $y_{N}$ and $l_{N}$ represent output and employment in the nontraded goods sector, $y_{X}$ and $l_{X}$ represent output and employment in the export sector and

[^5]both $\beta_{N}$ and $\beta_{X}$ are assumed to be less than unity. Equivalence of marginal products in the two sectors then implies:
$e+p_{X}-\left[1-\beta_{X}\right] \cdot l_{X}=P_{N}-\left[1-\beta_{N}\right] \cdot l_{N}$ and the factor market clearing condition $l=\delta \cdot l_{X}+[l-\delta] \cdot l_{N}$
where $\delta$ represents the share of the total factor supply employed in the export sector, allowing us to derive production functions of the form:
\[

$$
\begin{equation*}
y_{N}=\theta_{N^{\prime}} \cdot\left[p_{N}-e-p_{X}+\eta_{N} \cdot l\right] \tag{3}
\end{equation*}
$$

\]

where:

$$
\begin{align*}
& \left.\theta_{N}=\beta_{N}:\left\{1-\beta_{N}+\left[1-\beta_{X}\right] \cdot[1-\delta] / \delta\right\}^{-1}, \eta_{N}=\left[1-\beta_{X}\right] \delta, y_{X}=\theta_{X}: e+p_{X}-p_{N}+\eta_{X} l\right],  \tag{4}\\
& \theta_{\mathrm{X}}=\beta_{\mathrm{X}}:\left\{1-\beta_{\mathrm{X}}+\left[1-\beta_{\mathrm{N}}\right] \cdot \delta[1-\delta]\right\}^{-1}, \eta_{\mathrm{X}}=\left[1-\beta_{\mathrm{N}}\right][[1-\delta]
\end{align*}
$$

consequently, if the supply of the factor of production grows at a constant rate of $\zeta$, then in any period $t$ :

$$
\begin{equation*}
y_{\mathrm{N}}=\theta_{\mathrm{N}} \cdot\left[p_{\mathrm{N}}-e-p_{\mathrm{x}}\right]+\alpha_{\mathrm{N}} \cdot t \text { and } y_{\mathrm{x}}=\theta_{\mathrm{X}} \cdot\left[e+p_{\mathrm{x}}-p_{\mathrm{N}}\right]+\alpha_{\mathrm{x}} \cdot t \tag{5}
\end{equation*}
$$

where:

$$
\begin{equation*}
\alpha_{\mathrm{N}}=\zeta \cdot \theta_{\mathrm{N}} \cdot \eta_{\mathrm{N}}, a_{\mathrm{X}}=\zeta \cdot \theta_{\mathrm{X}} \cdot \eta_{\mathrm{X}} \tag{6}
\end{equation*}
$$

Keeping in mind the connections between inflation, monetary growth and the exchange rate regime, it leads us to the question if the exchange rate regime matter for the inflation and growth, while having in mind the issue of $O C A$ monetary unions. This can be answered by taking a straightforward stylized, i.e. the Frenkel-Mussa monetary model [6] or studies measuring the speed of convergence ${ }^{10}$ and enhancing them for purposes of our research. The principle purpose of investigating such a model is to perceive what affect the exchange rate regime has on swelling for a given rate of monetary-related development. This allows the induction of expectations about the effect of the conversion standard administration on the distinctive parameters of the currency advertise balance condition. The model comprises of a money demand condition, conditions deciding the distribution of utilization between imports, exportables and nontradables, a supply condition characterizing the yield of

[^6]exportables and nontradables, and a balance condition for the nontraded area. Under the oversaw swapping scale administration, the ostensible conversion scale is dealt with as exogenous, though under an adaptable conversion standard administration it acclimates to compare the estimation of imports and fares. Utilization in the model is distributed between three merchandises - imported, exportable and a nontraded commodity. For lucidity of work, the proportion of each in absolute use is held settled, however this has no considerable effect to the outcomes. On the off chance that ostensible cash request is relative to add up to utilization, at that point monetary symmetry can be written as:
\[

$$
\begin{equation*}
m=\varphi+\gamma \cdot\left[p_{N}+c_{N}\right]+[1-\gamma] \cdot\left\{e+\kappa \cdot\left[p_{M}+c_{M}\right]+[1-\kappa] \cdot\left[p_{X}+c_{X}\right]\right\} \tag{7}
\end{equation*}
$$

\]

where $m$ is the exogenous cash stock, $p_{\mathrm{N}}$ the household cost of nontraded products, $c_{\mathrm{N}}$ utilization of nontraded merchandise, $p_{\mathrm{N}}$ the exogenous cost of imports, $c_{\mathrm{M}}$ utilization of imports, $p_{\mathrm{x}}$ the exogenous cost of exportables, $c_{\mathrm{x}}$ utilization of exportables, $e$ the ostensible swapping scale, $\gamma$ the proportion of nontraded great utilization to add up to use and $\kappa$ the proportion of import utilization to add up to tradables utilization; all factors are communicated as logarithms. Exchanged and nontraded utilization levels are connected by the condition:

$$
\begin{align*}
& c_{N}=\kappa \cdot c_{M}+[1-\kappa] \cdot c_{X}+\gamma^{\prime}  \tag{8}\\
& \gamma^{\prime}=\log _{(M)}-\log _{(1-y)}  \tag{9}\\
& c_{M}=c_{X}+\kappa^{\prime} \tag{10}
\end{align*}
$$

where $\kappa^{\prime}=\log (\kappa)-\log (1-\kappa)$. Two items are created: non-exchanged merchandise, while output $=y_{N}$ and exportables, while output $=y_{X}$, for any period $t$ under the condition:

$$
\begin{align*}
& y_{N}=\theta_{N}\left[p_{N}-e-p_{X}\right]+\alpha_{N t}  \tag{11}\\
& y_{X}=\theta_{X}\left[p_{X}-e-p_{N}\right]+\alpha_{X t} \tag{12}
\end{align*}
$$

where $\theta_{N}$ and $\theta_{X}$ are exogenous parameters and $\alpha_{N}$ and $\alpha_{X}$ are exogenous output development rates, $x=p_{X}-p_{M}$ represents the conditions of trade, under the assumption that $\varphi$ is constant. What's more, we have a nontraded merchandise showcase clearing condition that $c_{N}=y_{N}$, leading to:

$$
\begin{align*}
& p=\left\{\gamma /\left[\gamma+\theta_{N}\right]\right\} \cdot\left(m-\varphi-a \cdot t+[1-\gamma] \cdot \gamma^{\prime}\right\}+\left\{\theta_{N} /\left[\gamma+\theta_{N}\right]\right\} \cdot\left\{e+p_{M}\right\}+\left\{[1-[1-\gamma] \cdot k] \cdot \theta_{N} /\right. \\
& \left.\left[\gamma+\theta_{N}\right]\right\} \cdot x \tag{13}
\end{align*}
$$

the rate of inflation can be written as:

$$
\begin{align*}
& \pi=d_{p} / d_{t}=\left\{\gamma /\left[\gamma+\theta_{N}\right]\right\} \cdot\left\{d_{m} / d_{t}-\alpha\right\}+\left\{\theta_{N} /\left[\gamma+\theta_{N}\right]\right\} \cdot d\left[e+p_{m}\right] / d_{t}+\{[1-[1-\gamma] \cdot \kappa] . \\
& \left.\theta_{N} /\left[\gamma+\theta_{N}\right]\right\} \cdot d_{x} / d_{t} \tag{14}
\end{align*}
$$

or simplified into:

$$
\begin{equation*}
\pi=d_{p} / d_{t}=d_{m} / d_{t}-\alpha-\left\{k \cdot \theta_{N} /\left[\theta_{N}+\theta_{x}\right]\right\} \cdot d_{x} / d_{t} \tag{15}
\end{equation*}
$$

we can therefore seem that the above equation has separated inflation into three bases - financial development far beyond genuine output development, import value swelling and changes in the terms of exchange, while in the flexible exchange rate the $e$ being endogenous.

Correlation of conditions and shows a portion of the stylized contrasts which one may hope to discover amongst managed and floating exchange rates administrations. In the managed case, a $1 \%$ expansion in the cash stock prompts a $1 \%$ increment in costs; in the floating case, the subsequent increment in costs is just $\gamma /\left[\gamma+\theta_{N}\right]$ percent, since a portion of the fiscal development is converted into a disintegration of the exchange adjust. On the off chance that most use is on imports ( $\gamma$ is not significant) and the nontraded merchandise supply bend is shallow ( $\theta_{\mathrm{N}}$ is, on the other hand, vast), at that monetary related extension has generally little impact on costs. In any case, similar comments are valid for the disinflationary impact of genuine financial development ( $\alpha$ ) when, higher development has a not as much as relative effect on expansion in a fixed exchange rate administration [5].

Figure 3
Differences between Fixed and Floating Exchange Rate Regimes

|  | Fixed ex-rate | Flexible ex-rate |
| :---: | :---: | :---: |
| The coefficients on sources of inflation |  |  |
| Monetary growth - real output growth | Positive $<1$ | Unity |
| Import prices | Positive $<1$ | None |
| Terms of trade | Positive $<1$ | Negative $>-1$ |
| The effect of $\gamma$ on the value of the coefficients |  |  |
| Monetary growth - real output growth | Positive | None |
| Import prices | Negative | None |
| Terms of trade | Ambiguous | None |

Source: Authors based on D. Fielding [5].
There are likewise contrasts in the effect of changes regarding exchange on residential expansion. At a given import cost level, the terms of exchange
change in a fixed-case administration prompts higher residential costs, in light of the fact that the fare value rise coaxes consider out of nontraded merchandise creation, prompting higher nontraded products costs. In a flexible-case, administration terms of exchange enhancements prompt swapping scale gratefulness (without such thankfulness there would be an exchange overflow), lessening the residential cost of exchanged products thus total local costs. Accordingly, the general effect of an adjustment in the fare cost is negative. Also, for a given terms of exchange the effect of import costs fluctuates amongst fixed ${ }^{11}$ and floating ${ }^{12}$ ex. administrations.

### 2.3 Equilibria with/out a Budgetary Union

In the previous sub-chapters, we broke down the delicacy of the fixed exchange rate administration, which as we have contended is a specific sort of inadequate monetary union. The deficiency emerges in light of a monetary union i.e. the Eurozone, which, in fact, is without a budgetary union. It will be seen that this prompts a comparable delicacy to the settled swapping scale framework. In the Eurozone ${ }^{13}$, there is "only one" monetary related specialist (namely the ECB) and numerous autonomous national experts that each control their own financial plan and issue their own obligation. The trademark highlight of this set-up is that the national governments emit debt in the common currency, while the issue lies in the reality that none of the national governments have coordinate control over. In this segment, an extremely basic model is created that delineates how in such situation different equilibria ${ }^{14}$ can emerge, particularly like in the model of the past segment. The beginning stage is that there is a cost and an advantage of defaulting on the obligation,

[^7]and that financial specialists have this in mind. Give us a chance to expect that a part nation of the Eurozone is liable to an economic shock, which appears as a decrease in government incomes. The last might be caused by a subsidence, or lost intensity. We will call this a dissolvability shock. The more prominent this shock, the more prominent is the loss of financial competence. Let us focus first on the advantage side. There are numerous ways and degrees of defaulting. To better facilitate it, we can imagine this as a cut of a settled rate. For instance, a state governance can choose to reimburse just half of its obligation (the cut is then half). The advantage of defaulting along these lines is that the legislature can lessen the intrigue load on the remarkable obligation. Therefore, after the default it should apply less severity, i.e. it should lessen spending as well as increment assesses by short of what it would without the default. Since severity is politically exorbitant, the state governance benefits from the default.

Moreover, there is one component of a bad equilibrium that merits breaking down further - as banks likewise being influenced, in two ways. To begin with, when financial specialists haul out from the domestic bond market (debt, credit market), the loan fee on government bonds increments. Since the local banks are normally the fundamental financial specialists in the household bond market, this appears as huge misfortunes on their accounting reports. Secondly, local banks are found up in a financing issue. As contended before, local liquidity goes away (the cash stock decreases) making it troublesome for the residential banks to move over their deposits, with the exception of by paying restrictive interest fees. Accordingly, the selfgoverning debt emergency in a monetary union has the power to subsequently overflow into a local banking crisis, regardless of the possibility that the local banks were sound to begin with. This component has assumed a critical part on account of Greece and Portugal ${ }^{15}$ where the sovereign debt emergency has prompted a full-scale banking crisis. On account of Ireland, there was a banking issue before the sovereign debt emergency, which in reality set off and rapidly escalated the sovereign debt crisis. The last mentioned, be that as it may, escalated the managing an account emergency.

Thirdly, there is another impact of being in a bad equilibrium for a monetary union members, since it is exceptionally hard to utilize automatic spending

[^8]stabilizers. A subsidence prompts higher government spending shortages; this prompts doubt of business sectors in the limit of governments to benefit their future obligation, setting off a liquidity and solvency emergency and at that point constrains the legislature to initiate starkness programs amidst a recession. In a solitary non-monetary union country, this does not occur in light of the fact that the doubt produced by higher spending shortages triggers a balancing mechanism [4]. In this way, monetary union members are downsized to a rank of developing (emerging) economies, finding it troublesome if not difficult to utilize budgetary strategies to balance out the business cycle. This element has been appeared to deliver articulated blasts and busts in developing economies. This element of a monetary union makes it possibly exorbitant. Naturally, the automatic stabilizers in the government spending plan constitute an essential social accomplishment in developed economies as they mollify the torment for many subjects made by the economic cycle booms and busts. In the event that a monetary union has the ramifications of crushing these automatic stabilizers, it is hazy whether the social and political reason for such a union can be kept up. It is in this way critical to outline an administration structure that keeps up these automatic stabilizers. Likewise, fiscal and monetary policy should go hand in hand, since over-reliance on one of the policies could have a critical impact on selected sectors of the economy. Area of operation of fiscal policy should cover several regions producing one product and should match monetary area, in view of a key feature of fiscal policy to compensate regional differences, maintaining internal balance. When defining the essential characteristics for the determination of net profits, respectively benefits from the monetary integration, openness of economies and the degree of correlation of incomes play an important role as a tool of measurement.

## Conclusions

A significant number of the issues of common economic and monetary unions emerge from the fact that they are deficient, incomplete or fragmented, missing the full-single market part with the needed goal of being sustainable in the long-run. Subsequently, in reality completing a monetary union truly implies moving towards more political union, transferring national to supranational foundations. In any case, then there must be a mechanism to substitute previously existing monetary and exchange rate policies within a currency area to avoid or to be able to effectively face asymmetric shocks, suppress bad equilibrium, negative events that affect demand respectively offer only in some parts of the currency area. The probability of economic shocks occurring then indicates whether monetary union is an optimum currency area. Optimum in the sense that a likelihood of asymmetric shocks is very low, since there is an economic mechanism that is capable of eliminating,
or at least reducing their impacts, while optimality is determined by the nature of the currency area, in particular the mobility of labor and other production factors, flexibility of wages and prices, economic openness, diversification of production and consumption, similar rate of inflation, fiscal and political integration. These features reduce the need to use the nominal exchange rate to restore internal and external balance, reducing the likelihood and impact of economic shocks. Moreover, own currency with a flexible exchange rate could, under ceteris paribus, function as a successful tool to control these negative shocks, as in the case of positive shocks leading to appreciation of currency and depreciation in the case of negative shocks. Therefore, countries deciding to join a common economic and monetary union should know if the benefits of such action outweigh the future costs.

## References

[1] ALESINA, A. - BARRO, R. J. 2001. Currency Unions. Stanford: Hoover Institution Press, 86. ISBN 978-0817928421.
[2] BERG, A. 2007. The Macroeconomics of Scaling Up Aid: Lessons from Recent Experience. Washington, D.C: International Monetary Fund, 105. ISBN 9781589065918.
[3] CAPIE, F. - WOOD, G. E. 2014. Monetary Unions: Theory, History, Public Choice. New York: Routledge, 212. ISBN 978-1138008687.
[4] EICHENGREEN, B. 2015. Hall of Mirrors: The Great Depression, the Great Recession, and the Uses-and Misuses-of History. Oxford: Oxford University Press, 520. ISBN 978-0199392001.
[5] FIELDING, D. 2005. The Macroeconomics of Monetary Union. New York: Routledge, 208. ISBN 9780203996836.
[6] FRENKEL, J. A. - MUSSA, M. L. 1985. Asset Markets, Exchange Rates and the Balance of Payments. In: Handbook of International Economics. Vol. II, Amsterdam: Elsevier Science Publ., pp. 679-747.
[7] GILES, CH. 2007. The Asian Financial Crisis of 1997 a Decade On: Two Perspectives. In: The Asia-Pacific Journal. Vol. 5, No. 8, pp. 1-12.
[8] HUDEC, M. 2016. Socio-Economic Convergence as a Necessary Precondition and Determinant of Societal Growth. In: Studia Commercialia Bratislavensia. Vol. 9, No. 36, pp. 394-407, ISSN 1339-3081.
[9] JORDAN, J. 2015. Austerity: Portugal is on a different path to Greece and Spain. In: The Conversation. London: The Conversation Media Group, pp. 1-5.
[10] KAWAI, M. - PARK, Y. CH. - WYPLOSZ, CH. 2015. Monetary and Financial Cooperation in East Asia: The State of Affairs After the Global and European Crises. Oxford: Oxford University Press, 240. ISBN 978-0198714156.
[11] KRUGMAN, P. R. - OBSTFELD, M. - MELITZ, M. 2014. International Economics: Theory and Policy. Harlow: Pearson Educational Limited, 792. ISBN 978-0133423648.
[12] LOWREY, A. 2011. End the Fed? Actually, Maybe Not? In: Slate. New York: Graham Holdings Company, pp. 1-4.
[13] NOORD, P. - SILA, U. - PADOAN, P. C. 2013. Good and Bad Equilibria: What Can Fiscal (and Other Policies) Do? In: Revue de l'OFCE. Vol. 1, No. 127, pp. 369-388. ISBN 9782312003184.
[14] OBSTFELD, M. - TAYLOR, A. M. 2005. Global Capital Markets: Integration, Crisis, and Growth. Cambridge: Cambridge University Press, 374. ISBN 9780521671798.


[^0]:    PhDr. Martin Hudec, MBA; University of Economics in Bratislava, Faculty of Commerce, Dolnozemská cesta 1/A, 85235 Bratislava 5, Slovak Republic, e-mail: mhudec18@ gmail.com
    2 Ing. Zuzana Okasová; University of Economics in Bratislava, Faculty of Commerce, Dolnozemská cesta 1/A, 85235 Bratislava 5, Slovak Republic, e-mail: zuzana.okasova@gmail. com

[^1]:    3 Common market and customs union.
    4 An intermediate move between pure economic and monetary union, on the one hand, and a complete economic integration, on the other hand.
    5 The first major instance of a fully negotiated monetary order, with the aim to govern monetary interactions among independent nations - states.
    ${ }^{6}$ Asian Monetary Unit composed of 13 currencies - Brunei dollar, Cambodian riel, Indonesian rupiah, Lao kip, Malaysian ringgit, Burmese kyat, Philippine peso, Singapore dollar, Thai baht, Vietnamese đồng, Chinese Yuan (Renminbi), Japanese yen, South Korean won [10].

[^2]:    7 It reflects the diminishing difference in the environment or in the economic and social levels - spheres of at least two states, countries or regions. Otherwise, increasing differences

[^3]:    between countries, mean divergence. Convergence depends, among endogenous changes in the economy, also on exogenous factors. Moreover, it means that the difference between two values decrease over time and these differences become negligible, and converge to zero, measured by at least two or more variables [8].

[^4]:    ${ }^{8}$ The difference between the nation's savings and its investment.

[^5]:    9 Up to 20\% lower inflation rate without resorting to devaluation with $6 \%$ price-controlling effect and $12 \%$ monetary discipline.

[^6]:    ${ }^{10}$ Productivity Growth, Convergence, and Welfare: What the Long-Run Data Show (1986); Information and Diversity of Analyst Opinion (1992); Convergence (1992); Technological Diffusion, Convergence, and Growth (1995); The Classical Approach to Convergence Analysis (1996).

[^7]:    ${ }^{11}$ Ascent in $\gamma$, a fall in the offer of imports in absolute consumption, diminishes the liquidity; this impact is non-straight and relies on upon the slant of the nontraded products supply bend. For a given rate of fiscal development, the impact on expansion of adherence to a fixed exchange rates administration is from the earlier vague. There is an increase through the diminished effect of monetary related extension on expansion, yet a misfortune because of the expanded effect of import cost swelling, and a lessening in the deflationary impact of any genuine monetary development.
    ${ }_{12} \theta_{\mathrm{N}} /\left[\gamma+\theta_{\mathrm{N}}\right]$ elasticity
    13 The Eurozone is not an optimal currency area, since it lacks a mechanism that would be able to stop divergent economic developments between member states. These necessary tools include - on the off chance that the systemic hazard premium is high, financial solidification balances out an economy caught in a bad equilibrium; all things considered, the balancing out effect of structural reform change and monetary related barriers are additionally bigger than under ordinary conditions; optimal arrangement blend - auxiliary change, monetary fences to counterbalance systemic hazard and monetary union.
    14 Under the term Good equilibrium we understand stable or falling debt, falling deficits and growing output, low interest rates; while the term Bad equilibrium means high and increasing debt + deficits and falling output, falling financial + household confidence, soaring interest rates [13].

[^8]:    15 The 2010-14 Portuguese financial crisis, like Greece and Spain, Portugal was bailed out by international creditors and underwent severity measures, which included tax hikes and salary cuts across the whole public sector. On the other hand, political effects in Portugal (significant continuity vs. the politics of the left-wing) of this have been to a great extent different compared to Greece or Spain, since Spain did not experience such a large a contraction in overall GDP compared to Greece and Portugal, but it did suffer a huge downturn in the construction sector. This downturn had transformed especially hard as it followed an equally impressive boom, affecting both economic output and employment [9].

