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# Russian and Belarus Monetary Union: Phantom or Reality?

As of January 1, 2004, the Belarus rouble has been pegged to the Russian rouble. This is intended as a first step towards monetary union, which it is planned should come into force on January 1, 2005. This plan presupposes the successful resolution of a number of difficult political and economic problems, however, and it is by no means certain that the plan will not later be abandoned.

This article discusses the probability of the creation of a credit and monetary union between Russia and Belarus. It concentrates on the issues where significant questions remain, starting with the applicability of the theory of optimum currency areas and the theory of currency substitution to events in the former Soviet Union. Information is also presented on the way in which the dialogue between the national central banks and the fiscal authorities takes place before monetary union in the member states is created. This information covers such areas as:

- the monitoring of domestic economic and financial developments
- macroeconomic forecasts
- the definition of macroeconomic objectives and information on macroeconomic policy changes.

Turning to the monetary issues we ask whether is it possible to launch the Russian rouble as a common currency for some of the regions and states in the former USSR and what are the ways to do so.

In recent years a great deal of attention has been directed to the issues of monetary integration between the leading European countries and the creation of a common currency area with the new members of the EU. However, the theory of optimum currency areas (OCA)<sup>1</sup> and the theory of currency substitution<sup>2</sup> focus their attention mainly upon well developed western market economies and are adjusted to their needs. They do not necessarily suit the needs of post-socialist (and especially post-soviet) economies. Economic science in the East is not always able to operate in the Western theoretical and practical manner, and the issue of monetary integration, whilst being a carefully studied problem in Western economic analysis, re-

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mains unknown in the post-soviet states, even in spite of the fact that the discussions about the probability of the reintegration of the former Soviet Union's republics have been ongoing for twelve years. The paths to economic and monetary integration in post-soviet states are extremely complicated as they also lie in the political sphere and, unfortunately, economic integration cannot be conducted without sufficient political will to cooperate, i.e. questions concerning the "quality" and "quantity" of political integration and mutual political relations in the states of the post-soviet era define the final goals of both economic and monetary cooperation.

# National Currencies and the Independent States

A number of works have been published in Russian economic journals and literature about the problems of monetary union between Russia and Belarus, and issues relating to general integration. In particular, we would like to draw attention to the works of Alimova and Idrisov,<sup>3</sup> Evstigneev,<sup>4</sup> Valovaya and Konstantinov<sup>5</sup> and Tereshenko.<sup>6</sup> Unfortunately, there is a lack of work with a sufficient econometric and statistical back-

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<sup>&</sup>lt;sup>1</sup> Robert A. Mundell: A Theory of Optimum Currency Areas, in: American Economic Review, Vol. 51, September 1961, pp. 657-665; Ronald I. McKinnon: Optimum Currency Areas, in: American Economic Review, Vol. 53, 1963, pp. 717-725; Peter B. Kenen: The Theory of Optimum Currency Areas: An Eclectic View, in: Robert A. Mundell, Alexander K. Swoboda (eds.): Monetary Problems of the International Economy, pp. 41-60, Chicago 1969, The University of Chicago Press.

<sup>&</sup>lt;sup>2</sup> Marc A. Miles: Currency Substitution, Flexible Exchange Rates and Monetary Independence, in: American Economic Review, Vol. 68, No. 3, June 1978, pp. 428-436; K. Alec Chrystal: Demand for International Media of Exchange, in: American Economic Review, Vol. 67, No. 5, Dec. 1977, pp. 840-850.

<sup>&</sup>lt;sup>3</sup> T. Alimova, M. Idrisov: The problems of currency relations in NIS, in: The News of St. Petersburg State University, "Economic" series 1995, Vol. 3.

 $<sup>^4</sup>$  V. Evstigneev: Currency and financial integration in NIS and EU: the semantic comparison analysis, Moscow 1997, "Nauka" publishing.

<sup>&</sup>lt;sup>5</sup> T. Valovaya, Y. Konstantinov: The conceptual bases of creating of the payment union in NIS and ways to currency union, Moscow 1998, "Russian Academy of Science" publishing.

ground and the studies mentioned are based mainly on theoretical assumptions. Alimova and Idrisov were the first to do research in the field of monetary integration with a special focus upon interstate monetary relations in the Newly Independent States (NIS) and explored the application of standard OCA theory to post-soviet reality. V. Evstigneev focuses his attention mainly on the methodological issues of currency integration. T. Valovaya and Y. Konstantinov investigate the general questions of monetary and financial integration and cooperation in the NIS. But even before these works were published the government of the Russian Federation announced its own plan for the preservation of a rouble area ("rouble zone of a new type") which aimed to keep all the republics within the single currency area and which stipulated the way to fast internal and external convertibility.

Nowadays the Russian and Belarus economies are ranked as one of the most developed integration groups within the former Soviet Union (excl. the Baltic republics) and convergence efforts by the national authorities include legislation, the economic and political environment, and the voting system. In a sense, the case of Russian-Belarus relations is an exception in the post-soviet context because the initial divergence between these states was not as great as in other cases. However, it is necessary to draw attention to the fact that the integration processes are not still far from their starting-point - not even a complete free trade area has been established as yet, but in 1992-1993 in several top level meetings both sides decided to launch "a new currency" as a common (or single) currency for the proposed Russian-Belarus monetary union.7 Actually, even today, although they have declared the transition to economic and monetary union, both states have not quite decided what this involves: the launching of a new common currency or the declaration of the Russian rouble as the official means of payment in Belarus. At the same time it is not clear - neither at the academic nor at the political level - whether this means a common state something like the former Soviet Union or an economic union with totally independent member states.

All the above-mentioned issues pose a number of important questions which need to be discussed be-

fore launching the single (or common) currency. First of all, what is the general economic reason for these countries to create a monetary union? What costs will each country bear and what are the economic benefits from creating a common currency area in this case? What will be the initial exchange rate between the national currencies and what will be its behaviour in the short, medium and long run? Is it better for both countries to remain individual monetary players? In the latter case the problem of independent monetary policies for each state has to be studied, as there is no evidence that a unified monetary policy will suit their needs better than two independent ones.<sup>8</sup>

Belarus, whose economy is relatively small, clearly cannot operate an independent economic policy as the optimal framework largely depends on the external environment, and on external shocks in particular. Unfortunately, neither Belarus nor Russia can find a "reasonable" explanation for creating the union - grounds such as the reduction in the transaction costs of exchanging currency, the reduction of exchange risk (which leads to greater investment and trade and to lower risk premiums) are so negligible that they should not be considered very seriously. First of all, the exchange costs are not so important for the Russian side because Belarus is not its leading trade partner. Second, the monetary substitution (which is the most probable path of future development) will not lead to greater investment and trade between the states unless Belarus becomes totally open to Russia and closed to the rest of the world. Third, Belarus has no opportunity to increase its trade with the rest of the world nowadays because of its very limited access to international markets. Fourth, the security and loan markets are almost closed for Belarus because of its unpredictable economic policy, but Russian investments are not a panacea which could resolve the problem.

Nowadays, neither the Russian nor the Belarus government is trying to promote nation-wide discussions about the costs and benefits of monetary unification and have largely neglected the huge structural disparities in the economic development of the two states. The problem is that Mundell's theory is just a "core theory" which can be adopted to the contemporary situation, and it could be said that the proposed unification meets the OCA conditions.<sup>9</sup> The theory of currency substitution gives us the opportunity to look at the problem from an economic point of view: interstate monetary arrangements are widely explored

<sup>&</sup>lt;sup>6</sup> A. Tereshenko: Launching a common currency in the union: the assessment, in: Bank Bulletin Magazine (Belarus), September 2002, Vol. 25 (210), pp. 5-13.

<sup>&</sup>lt;sup>7</sup> See, for instance, the agreement of 8 September 1993, "On integration of the monetary systems of Belarus and the Russian Federation", and the agreement of 12 April 1994, "On integration of the monetary systems of Belarus and the Russian Federation and the conditions of functioning the common monetary system", in: "Garant" law database.

<sup>&</sup>lt;sup>8</sup> That is what we can see in P. Minford, A. Rastogi: The Price of EMU, in: R. Dornbusch, R. Layard (eds.): Britain and EMU, Centre for Economic Performance, LSE, London 1990, pp. 47-81.

in the literature and the only thing we need to do is to adopt such studies to the contemporary needs of both states. But as experience in Western Europe demonstrates, "... economic criteria (to be) are secondary to political factors. Although the individual members of EMU are separate political entities, monetary union is likely to be feasible only if part of a larger political calculus. History has shown that successful monetary unions have been successful political unions ..."<sup>10</sup>

# Economic Conditions Before Joining the Monetary Union

One of the issues is the problem of monetary coordination between the states which are about to create a monetary union, as the goal of monetary coordination is to harmonise the activity of the monetary authorities at the initial stages in order to accelerate and generate convergence in the future. There is nothing similar to the European Stability and Growth Pact between Russia and Belarus, and each republic is still trying to obtain the benefits from internal coordination between their monetary and their fiscal authorities but not from mutual cooperation at the interstate level. The problem is that it is difficult to find a balance of interests of all the parties involved, as each of them is used to applying its own methods and instruments, irrespective of their partner's goals. Generally speaking, coordination may be taken to mean any of the following situations:

- · exchange of information between the policymakers
- mutual acknowledgement of the existence and probable behaviour of the other policymaker
- · joint decision-making by the policymakers
- agreement between the authorities on a sequence of moves.

Furthermore, the governments of Russia and Belarus are in the process of negotiations on the interstate bank, which would be in charge of a common monetary policy for the union, but these negotiations are unsatisfactory because Belarus is simply unable to play an adequate role in the policy of the Central Bank of Russia. Nowadays Belarus is insisting on equal weights for both sides in the "common central bank" (and even on its share of seignorage from money emission) but Russia is not ready to delegate part of its rights to the foreign party for free (some Russian

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regions are much larger than Belarus, but they have no rights in the voting process on the board of directors of the Central bank of Russia).<sup>11</sup>

The problem is that there is no point in examining interstate coordination processes using the theory of optimal currency areas (with its special focus upon countries), but that it would be better to use classical OCA theory together with interregional analyses (89 Russian and 6 Belarus regions). In this case the average result would be more precise (nowadays Moscow produces approx. 21% of Russian GDP, but its population is less than 7% of the total population of Russia). It can be suggested restructuring the Russian central bank system, which consisted of 89 local central bank branches, and creating 8-10 "big banking regions" with the local central bank branch at the head. And after that the Russian and Belarus central bank system could create the Union reserve system, consisting not of the Central Bank of Russia and the National Bank of Belarus but of the local "big regional central bank branches". No one bank would be required to share its seignorage with the other central bank and the income from money emission would go directly to the state budget. Second, neither Russia nor Belarus would lose its central bank independence as the system would work on the principles of the reserve system. Third, this form of management would improve monetary and fiscal coordination as each member of the reserve system would become more sensitive to external and internal shocks. Fourthly, the factor markets (labour market, financial markets etc.) could improve their flexibility and this would lead to less inflation and more profits for both firms and the states. These features would mean that monetary and fiscal policy coordination would occur through the union reserve system taking fiscal policy into account as an element of the environment in which monetary policy operated. And finally, this scheme would be very open to other potential member states like Kazakhstan, Ukraine and Kyrgyzstan as it would not lead to huge structural disparities, neither in the fiscal nor in the monetary spheres, but would be very sensitive to market requirements (in terms of inflation targeting, money demand and supply etc.) Furthermore, the taxation systems of the member states could also be changed in the same way, as cooperation and coordination would be made possible in a better way and would lead to extra benefits.

<sup>&</sup>lt;sup>9</sup> However the monetary union cannot be created if the countries only meet the standard criteria and that is why there are a lot of proposals to create a monetary union between different states but these studies cannot be put into practice for political reasons.

<sup>&</sup>lt;sup>10</sup> George S. Tavlas: Monetary Union in Europe, in: Submissions on EMU from Leading Economists, London 2003, available at www.hm-treasury.gov.uk.

<sup>&</sup>lt;sup>11</sup> A lot of countries around the globe use the American dollar as an official (and unofficial) means of payment and a lot of international trade contracts are clinched in this currency, but neither the government nor the Federal Reserve Board of the USA are trying to sign an official agreement with any other country with the purpose of guaranteeing any losses which can occur in the case of devaluation of the dollar!

Key features of the operational framework for the conducting of monetary and fiscal policy should include the following.

- The Union reserve system, as the monetary authority, should have operational independence to pursue its statutorily imposed goal of price stability.
- The system, therefore, would be required to respond to developments in the economy – including changes in fiscal policy – that have material implications for the achievement of the price stability target.
- Most major discretionary changes in fiscal policy should be announced well in advance, which would generally provide enough time for the system to factor them into its macroeconomic assessments and monetary policy settings.

Leaving the formal analysis to be developed, we may say that in practice there is a natural solution to this question: the policy process underlying fiscal decisions is by its nature lengthy and complex and cannot be reverted once decisions reach the stage of implementation; on the contrary, the process underlying the monetary policy decisions can be implemented in a very short time. Hence, fiscal authorities will dominate as leaders in a Stackelberg equilibrium with the central bankers.

It has to be mentioned that despite the attempts by the National Bank of Belarus to run an inflation targeting policy (or something similar to inflation targeting) the latter seems to be very inefficient as it allows the authorities to stabilise only nominal output and nominal market flexibility while the real data remains unchanged or is even becoming worse. At the same time the justification for monetary targeting is that, if there is a stable relationship between the stock of money in the economy and the total value of money spending, then a choice of interest rate which keeps the stock of money growing at a particular rate will deliver the same rate of growth of money spending. If, furthermore, the volume of economic activity is reasonably stable, then the stable growth of money spending will deliver a reasonably stable rate of inflation. Furthermore, Belarus receives credits from Russia on a regular basis with the goal of stabilising the monetary system of the country, and these quasi-credits will never return to Russia because they are used as a kind of financial support for the republican social system.

### **High Price of Monetary Union**

The discussion of the prospects of Russian-Belarus monetary union which began after the signing of the respective agreements raised the awareness of the fact that the price for economic and monetary unification will be rather high, will drag on for years and bring both new gains and losses.

- First of all, it must be admitted that the governments' initial plans for the possibility of currency union without increasing the tax burden have turned out to be unrealisable. However, the tax increase can be justified because from the financial and economic points of view it must be admitted that attempting to solve the problems by increasing the state debt is fraught with considerable risk. The taxes which will be used for the implementation of important economic programmes will have an effect which will subsequently reduce the tax burden, but no one can disregard the fact that the tax increase may be fraught with the most dangerous method of covering the union budget deficit - the slowdown of the rate of economic growth. Therefore, the introduction of new taxes should be considered not only from the point of view of current needs but also from the perspective of future economic results.
- · Secondly, the possibilities of increasing the state debt of the union are not exhausted. Of course, covering expenses by state borrowing and thereby increasing the state debt is inevitable, but this strategy will not have any economic justification in the future perspective. The increase of the share of state debt in the all-union GNP will be economically defensible if the borrowings are used for profitable "future investments" and the growth in borrowing is compensated for by a reduction in other areas. The increase in state debt will entail the increase of interest payments that will probably be covered by tax increases and a reduction in social spending. In turn the increase in loan interest will cause a reduction in investment as it will make investment in state bonds more profitable. The central contention of supply-side economics is that a high level of taxation has a negative effect on economic performance. The so-called inverted Haavelmo effect can be seen as a theoretical and empirical foundation for the implementation of supply-side policies. The inverted Haavelmo effect refers to the occurrence of a negative balanced-budget multiplier instead of a positive one. The result of an expanding public sector, financed by extra taxes and/or social security contributions, will be a lower rate of economic growth and less employment than in the absence of such expansion.

Understanding the advantages and disadvantages of economic and monetary union requires the recalculation of costs – in the current, short-term and

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long-term dimensions. Thus, for example, the social costs in Belarus will burden the budget and in spite of the financial support from Russia such expenditures will not allow an improvement in the position of companies. On the contrary, the investment costs will promote the aligning of infrastructure development and should be financed from both states in different proportions. However, it seems that having chosen the easiest road to economic unification, neither Russia nor Belarus have estimated the real financial requirements of forming the "live" monetary and economic union and solving any problems that may arise. One possible scenario is that the differences in economic structures (and as a result, their reaction to external shocks) will reverse convergence and even isolate the national economies from each other in spite of the declared aspiration of integration and cooperation.

### **Consequences of Asymmetry**

All the aforementioned, however, mostly concerns the financial needs of common economic integration, but not the creating of a monetary union. And the problem is not only that this requires the separation of the costs for economic and monetary integration but that the Russian and Belarus economies are asymmetric (or asymmetrically dependent), which means that even the states whose economic cycles are guite close to each other can face certain differences in the synchronisation of their monetary or fiscal cycles. "Asymmetrically dependent economies" can be defined as a certain economic entity in which each element behaves according to its own economic laws (asymmetry) but at the same time changes in one country have "knock-on" effects inside the other, when according to the optimum currency area studies the member states of a common currency area should have symmetry. The forecasts of the evolution of monetary union and the determination of the economic effect are accomplished by the use of two-country econometric models, for example the model by Collard and Dellas,<sup>12</sup> who demonstrated the asymmetry of the state's economic development upon adoption of a common currency. Tailor<sup>13</sup> and Mitchell<sup>14</sup> determined the correlation between the supply of common currency and the wage level. These models allow the determining of the influence of "residual" asymmetries on the whole process of economic integration and the choosing of the types of asymmetry which have a major influence upon convergence (non-convergence) of the different economies.

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The consequences of asymmetry may be found in different economic spheres of a monetary union.

- They are found in the interest-rate elasticity of the demand/supply of the common currency in different countries. The determining points are the structure of the economy, the ratios of consumption and savings etc.
- Thus all the models consider the elasticity of money supply and money demand in the short run only for their influence on the exchange rate and neglect any other role they may have. It is obvious that the interest-rate elasticity of the money supply and demand affects the efficiency of implementation of monetary policy as a whole (because, for instance, of asymmetric responses to common monetary shocks). Some calculations show that initially, upon the introduction of the common currency, the integration group must not be regarded as an optimal currency area and that such costs of incompleteness are the price of the common monetary policy in a world of asymmetric economies.
- If monetary policy is geared towards an exchangerate goal when there are different elasticities of money supply and demand in the member states, this may result in a considerable destabilisation of the business cycle. Thus, if there is asymmetry of the economic structures inside the union, the implementation of the common monetary policy may not always create a stable monetary zone.
- The most economically powerful state of the union (anchor country) is always more prone to deflationary processes than to inflationary ones. This is an effect of the common monetary policy. And in this case the possibilities of overcoming the peculiarities of economic development by some form of monetary policy autonomy for member states' central banks are strictly limited.
- Asymmetry has consequences for the labour markets when: wages rates and prices are slow to adjust; price inflexibility means the market does not clear; the goals of budgetary consolidation are in conflict with the wage policy; there is an asymmetry of efficiency of assets in the economy. The common market leads to the synchronisation of the activity of different economic agents.

<sup>&</sup>lt;sup>12</sup> F. Collard, H. Dellas: Exchange rate systems and macroeconomic stability, in: Journal of Monetary Economics, Vol. 49, No. 3, April 2002, pp. 571-599.

 $<sup>^{\</sup>rm 13}$  J. Taylor: Macroeconomic Policy and a World Economy, New York 1993, Norton and Co.

<sup>&</sup>lt;sup>14</sup> P. Mitchell, J. Sault, P. Smith, K. Wallis: Comparing Global Economic Models, in: Economic Modelling, Vol. 15, 1998, pp. 1-48.

In the long run, if states at very different levels of economic development use a common currency there will be a need for convergence, and there will be inter-regional financial transfers: those are the reasons why the states must analyse pro and contra before launching a new common currency or joining the existing common currency area. Unfortunately, in the Russian-Belarus case the question to be discussed is not so obvious because neither the theory of general macroeconomic equilibrium nor Stackelberg studies say anything about multistage coordination, and it could be assumed that there is no sense in coordinating current activity between the states because of the countries' different economic weights. (Russian GDP is approximately 20 times as large as Belarus GDP). But coordination policy will let the authorities reduce unification costs and increase the benefits, without which the formation would simply collapse in the future.

Both economies can be described with certainty as "open" but the different degrees of "openness" are worth noting. And the big difference in openness is the value of the common "residual" asymmetry that yields to quantitative and qualitative interpretation. One of the possible methods of calculation of the "correction factors" is the determination of the different effects of the influence of the monetary policy instruments on the economies of the integrating countries. The minimisation of the "residual" asymmetries in the credit and monetary union depends on the choice of the economic procedure for integration (either by market conditions or by means of centralised planning). However, in the Russian-Belarus case a mixed approach may be applied. Nevertheless, the necessary condition for this to happen is that both states adopt a coordinated policy to substitute the Russian rouble for the Belarus rouble and the establishment of free market prices in most cases. This, coupled with other policies, will help to produce economic convergence throughout the entire territory. Nowadays there are different views on the question and different estimations of the economic starting positions - from the exaggeratedly negative to the extremely optimistic with the consensus on a "middle way" point of view somewhere between the two extremes. However, all authors are confronted with the problem of asymmetry because there is a lack of evidence and research on the development of the most important economic indicators, such as economic growth, real productivity, unemployment rates etc. Nevertheless, it may be suggested that the level of unemployment will rise in the transition period and, due to "catching up", the Belarus average wage will rise to Russian levels and the attractiveness of investment in Belarus will be higher, and thus the interest rate will increase and the export of Belarus capital to Russia will be reduced, through a process of factor price equalisation.

Even if the above-mentioned reconstruction of the integration processes as a regular evolution from the "simple" forms to "complex" ones is convincing, it is predominantly so by force of habit. One form of integration inevitably puts the whole system, including monetary, financial and other aspects, on the agenda: moreover, trade integration ("common market") logically demands the convergence of financial and other parameters of macroeconomic policy (in other words all that is usually considered to be a higher degree of integration) as its preliminary condition. Of course, many arguments can be developed in favour of the opposite point of view. If there is no market structure which can cause the convergence of factor prices and promote mutual intra-sector trade, and meanwhile the monetary system has been integrated to a considerable degree, any changes in the money supply in the joint monetary and financial market will cause asymmetric effects in the member countries. That means that the countries where the production of tradables is relatively capital-intensive will experience a more unfavourable effect than those where this is the case for non-tradables; therefore monetary integration seems to be impossible until trade integration is fully complete. In real life, these conditions for convergence are unlikely to be satisfied, but this discussion highlights the fact that in the extreme case the choice in favour of integration is made under conditions of uncertainty and, therefore, needs some additional information.

# **Entry Exchange-rate Mechanism**

Models of purchasing power parity, or the Balassa-Samuelson hypothesis, naturally lend themselves to the exercise of determining whether a currency is "overvalued" or "undervalued" (furthermore, one implication of the Balassa-Samuelson hypothesis is that the standard practice of measuring misalignments as deviations from linear trends is likely to provide inappropriate conclusions). A long-run relationship between exchange rates and relative prices exists for all currencies with respect to at least one special reference currency or price deflator. A large number of works (see for instance Svensson, McKallum etc.<sup>15</sup>) have sought to characterise the adjustment of the real exchange rate towards its long-run value. Usually, the long-run real exchange rate is thought to be

<sup>&</sup>lt;sup>15</sup> L.E.O. Svensson: Open-Economy Inflation Targeting, in: Journal of International Economics, February 2000, Vol. 50, No. 1, pp.155-183; B. McCallum, E. Nelson: Monetary policy for an open economy: an alternative framework with optimizing agents and sticky prices, in: Oxford Review of Economic Policy, Vol. 16, No. 4, pp. 74 – 91.

that which equates the prices of identical baskets of consumer goods in different countries, when these are expressed in terms of a common currency. The problem arises from the fact that the adjustment takes longer than can be rationalised by sticky prices. The econometric results reveal considerable evidence for the hypothesis that market imperfection is associated with the high persistence of deviations from purchasing power parity (such imperfections depend on a large number of factors, such as the development of market structures, fiscal and monetary restrictions, trade legislation etc.)

A critical element in creating a common currency area between different states is the defining of an appropriate exchange rate at which the states are ready to enter the monetary union. The problem is that noone knows what the equilibrium exchange rate is and what the appropriate time to fix an exchange rate irrevocably against the neighbour currency will be - the band may be as wide as it can be narrow, so the decision to fix or peg it will influence the future economic development in each of the countries concerned. (In the case of Russia and Belarus one further problem is that Belarus has already fixed its exchange rate irrevocably against the rouble, but has not adjusted its financial and market structures to the Russian ones.) Meanwhile, some macroeconomic models (Minford et al.<sup>16</sup>) could be used to estimate the equilibrium exchange rate, but we should mention that these models are very sensitive to key assumptions, such as how large a current account deficit is or what the general economic expectancies are. The problem is that any junction of the monetary and credit systems could create monetary union but will not form the optimal currency area. The analysis found that adopting a fixed exchange-rate system does not necessarily lead to more trade. In a simple benchmark model with different preferences and only monetary shocks, trade is unaffected by the exchange-rate system, which is consistent with most of the evidence. Furthermore, for both trade and welfare a comparison across exchange-rate systems depends crucially on how each system is implemented, as the determinants of trade differ from the determinants of welfare:

- more trade does not always correspond to higher welfare;
- trade is higher under one exchange-rate system, while welfare is higher under the other.

Nowadays the disparities between the official and actual inflation rates in Belarus are quite high, and they also affect the divergence between the actual and of-

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ficial purchasing power parity of the Belarus rouble. It may seem very strange, but the aim of the republican authorities is to adjust (or to equalise) the official PPP of the Russian and Belarus currencies. This would be a solution which would allow them to define an exchange rate between the two currencies. But purchasing power parity is independent of the exchange rate. (There is no point in price comparing as the labour productivity, for instance, can differ from country to country just because of the difference in the technologies used. That is also the reason why the deviation between purchasing power parity and the exchange rate in less developed countries is usually higher than in well developed ones). It is worth considering this point as there is a large discrepancy to date between the PPP and the actual exchange rate of the Belarus rouble to the Russian rouble. The standard ratio "exchange rate / PPP" for developing countries is usually within the range of 2.5-3, but in the case of Belarus we observe 5-7.5 (the higher figure is the production assets bound of PPP). Such a situation is unacceptable as this imbalance puts the brakes on economic development (the country cannot implement the investment programmes aimed at the establishment and development of its economy due to the exchange-rate disparities, which distort the price of imported capital goods and make it more profitable to invest in the old enterprises and build up production on their base than to start new ones with expensive foreign capital). Although the divergence "exchange rate / PPP" is not an exclusive problem of the Belarus economy (in Russia such a problem is no less urgent) once the decision in favour of currency substitution has been taken, Belarus will become the centre of inflation for the common monetary area (in other words, the underestimation of productive assets in Belarus will require intensive investments so as to equalise the prices of productive assets in both countries, and there are no guarantees that these investments will stay in Belarus and not return to Russia).

#### Conclusion

There is a supposition that the development of the interstate integration processes both "in breadth" and "deep down" brings the participating countries to the same end-point. In practice, however, every stage of integration generates a threshold situation which is notable for its fundamental uncertainty and within the bounds of which the immediate economic incentives for further integration may stop operating or even become disincentives. These results are also observed during the transition from trade integration to monetary integration. Following this logic, after the integration of the commodity and financial markets, monetary union may turn out to be not closer but further away.

<sup>&</sup>lt;sup>16</sup> P. Minford, A. Rastogi, op. cit.