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Post–Soviet Issues: Stabilization, Trade and Money

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(Revised version, April 1992)

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POST-SOVIET ISSUES: STABILIZATION, TRADE AND MONEY

D. Mario NUTI and Jean PISANI-FERRY (*)

1. Introduction.

The disintegration of the Soviet Union, accomplished by the August 1991 putsch failure and formalised in December by the creation of a smaller and looser Commonwealth of 11 Independent States[1], paved the way for the unilateral introduction by Russia of a stabilization and reform programme on 2 January 1992. The programme had been announced by Boris Yeltsin on 28 October 1991 but would have been incompatible with the Draft Economic Union Treaty, then still under discussion, which excluded unilateral price increases by individual republics. Implementation was originally due in mid December but was postponed at the request of other republics, notably Ukraine. A second round of measures was to follow in April 1992, but has been partially delayed because of domestic and republican pressures.

The Russian package has a great deal in common with the Polish prototype of January 1990, on which it is modelled. It was preceded by protracted economic decline, open and repressed domestic imbalance and an external payment crisis (Table 1). It includes price liberalisation, fiscal and monetary restraint, drastic cuts in real wages, plans for the introduction of current account convertibility and projects for the commercialisation and privatisation of state enterprises. It has been accompanied by a burst of hyperinflation and recession, poised to continue at lower rates throughout 1992.

There are, however, a number of specific features of the Russian package, of the Russian economy and of its relations with the other republics[2], which deserve further investigation. In particular, the peculiarity of the Russian case is the persistence of a rouble zone, encompassing not only CIS but the entire former USSR. The rouble has been "nationalised"[3] and for the time being is being managed by Russia. Other ex-Soviet republics have been forced to follow Russia's price rises but all of them, including Ukraine, are much further behind in their transition. There are plans for republican currencies but so far other republics have issued rouble complements (rationing coupons) which only in Ukraine have become rouble substitutes. This peculiarity poses special problems of inter-republican trade regime and monetary policy coordination, affecting the progress and costs of Russian stabilization.

This paper, after a brief review of the Russian programme of January and April 1992 and accompanying economic trends (section 2), discusses some specific anomalies of that

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(*) Commission of the European Communities, Brussels. The views expressed in this paper do not necessarily reflect those of the EC Commission. *This paper draws partly on a EC Commission report prepared jointly with Andreas Papadopoulos and Rutger Wissels. Acknowledgements are due to Andrei Vernikov and other Conference participants for helpful comments.*

[1]. The CIS (SNG from the Russian initials), established by the Alma Ata and Minsk treaties of December 1991, does not include Estonia, Latvia, Lithuania and Georgia.

[2]. We refer to former USSR members as "republics" in spite of their declared preference for "states" when ambiguities would otherwise arise, for instance using "state currency" or "state trade" instead of "republican currency" and "republican trade". Both authors are citizens of countries which are proud to be called republics.

[3]. This is the vivid though unorthodox expression used by Alexei Mozhin at a recent Conference on "Inter-state economic relations", Brussels, February 1992. See Gros et al., 1992.

programme and related problems of implementation (section 3); stresses some adverse structural features of the former Soviet Union (section 4); raises questions of interrepublican economic relations (section 5), and especially of monetary and trade regimes (sections 6 and 7 respectively). All these factors are bound to increase the cost of stabilization and transition relatively to that of similar programmes in other post-communist countries; section 8 draws some implications for Western assistance.

2. The Russian programme: implementation and performance.

The January package

The measures taken in January included:

- price liberalisation except for a number of goods and services such as basic foodstuffs, transport, health and education, energy and fuels, subject to a 25 per cent ceiling on trade margins. Prices were expected to increase in the first quarter by 200-250 per cent as a result;
- drastic reduction of product subsidies;
- adoption of a quarterly state budget aimed at reducing the deficit to 1 per cent of GNP, through both expenditure cuts (defense, investment, subsidies) and additional fiscal revenues;
- introduction of VAT on most goods (not imports) at a 28 per cent rate, reduced to 15 per cent for some goods in mid-February;
- unification of profit tax at a 32 per cent rate and the rise of pay-roll tax to 37 per cent, with wages in excess of four time the minimum wage taxed also as profits; new or higher excises; the temporary abolition of most imports tariffs and a new export tax[4];
- pre-payment of 90 per cent wage increases in part compensation of anticipated inflation ahead of price liberalisation, and plans for a safety net for the new poor and unemployed;
- monetary restraint, with a 15 per cent target increase of commercial credit in nominal terms (i.e. an expected contraction in real terms of the order of 62-67 per cent), through the rise of reserve ratios from 0.02 to 0.20 and the imposition of non-interest-bearing deposits on commercial banks;
- a rise in the discount rate from 5 to 20 per cent;
- a medium term programme for the commercialisation and privatisation of state enterprises, through distribution of free shares to employees (20 per cent of the total subject to an individual limit of 20 months minimum wage; plus another 10 per cent of shares at a discount) and sales to the public and foreign investors.

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[4]. *The export tax is on individual commodities not values; it is fixed in ECU per physical unit and is paid in roubles.*

The April round

On 27 February 1992 the Russian government adopted "Guidelines for the economic policy of the Russian Federation", for implementation in April; IMF officials were consulted and the programme was finalized at mid-March and submitted to the IMF at the end of March. The second package was intended to include the following measures.

Prices. All remaining restrictions on consumer prices will be abolished by the end of March, except for rents, catering and public transport; bread and milk may be regulated by local authorities. Raw material and energy prices will be liberalised immediately but subject to an export tax, which will progressively be phased out between mid-April and the end of 1993. At first crude oil price will be raised sixfold to R 2000-2500 per tonne, i.e one-third of world market prices[5]. April inflation should rise to 50-75 %; strict monetary and incomes policies would slow down inflation to a monthly rate of 1-3 % in the last quarter, expected to total 100-140% for the last three quarters of 1992 (compared to 145% in January-December 1991 and an additional 350% which is now expected for the first quarter of 1992).

Wages. Wages are to be liberalised, however subject to high and progressive taxation on excess wage bills over and above central Guide-lines in state enterprises (private enterprises are exempt); salary increases of civil servants are to be held within 70 per cent of wage increases in state enterprises.

The state budget. A deficit of 10 per cent of GDP in the first quarter should be reduced to zero in the last quarter of 1992[6]. Subsidies, currently 5 % of GDP, and administrative expenditure should be reduced; imports will be subject to VAT and tariffs at a single rate of 15 per cent from 1 July 1992, a unified tax regime will be introduced for exports of raw materials and energy products, additional taxation at an average rate of 50 per cent will be introduced on domestic consumption of oil and gas. Local authorities will have the right to levy additional taxes. Credit financing of budget deficits by local authorities will be restricted by the government and the Russian central bank; credit financing of the Federation budget deficit by the central bank is not to exceed 2% of GDP.

Monetary policy. Credit expansion will be kept within the range set by anticipated inflation and the target increase in reserves. The increase in central bank credit to commercial banks will be set administratively; the credit ceiling for the first quarter is 15%. Minimum reserve requirements will be imposed on all commercial banks, including the Russian savings bank, at rates to be raised gradually to 20%. The government will raise the interest rate on its debt in April; commercial banks will be free to set their interest rates.

Exchange rate policy. Multiple exchange rates will be simplified at first, with only two rates the end of April: a floating rate for all current account transactions and a stronger fixed rate for capital transactions. The floating rate will be maintained until stabilisation and reserve accumulation allow a change of regime.

In order to introduce current account convertibility, enterprises will gradually surrender their entire export revenues to the central bank at the market rate. From 15 March there will be more frequent currency auctions by authorised banks and interbank transactions, banks will be allowed to hold open positions and restrictions on customer transactions will be abolished.

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[5]. *At a 50 roubles per dollar exchange rate.*
[6]. *The deficit of the first quarter would be higher if measured according to international standards.*

Trade policy. Export quotas and licences will be abandoned from 1 July 1992 except for energy products, for which export quotas will be set taking into account domestic consumption requirements and will be gradually reduced until complete liberalisation by the end of 1993.

Incomes policy. A progressive tax will be introduced on wage bill increases only in state enterprises, at 100% for increases up to 1% over a yet unspecified limit, 200% up to 2% and 400% for increases over 2% above the limit.

Social policy. Employees made redundant by restructuring or closures will receive 90% of their average earnings for 6 months and thereafter 75% of the minimum wage. All other unemployed will receive the 75% minimum wage allowance from the start of unemployment. (At present the unemployed are paid benefits equal to their full average salary for three months, gradually falling to the minimum wage over the following 12 months).

Privatisation. Mass privatisation should start at the beginning of 1993, based on the distribution of vouchers to the population and shares to employee and on general sales including foreign investors for which current restrictions will be greatly reduced. Privatisation will include the land on which enterprises are located. Unfinished construction will be privatised and enjoy favourable tax treatment. Forms of collective ownership will be possible only in exceptional circumstances.

Although the programme was submitted to the IMF at the end of March, subsequent parliamentary debates and pressures from other republics have led the government to postpone price liberalization until June at the earliest, to relax ceilings on credits to ailing state enterprises and to raise the level of pensions. Vice-prime minister Gaidar announced in early in April that the balanced budget target had to be abandoned and that the government was aiming at a deficit target of 5% of GDP.

First results

In January 1992 prices in Russia rose immediately by the expected 200-250 per cent; the free price of the dollar rose from 110 to mid-January peaks of 230 roubles. In February the rouble strengthened and the monthly rate of inflation fell to around 40 per cent. A shortage of banknotes, already emerging at the end of 1991, developed as a result of high inflation (which had reached 145 per cent within 1991) and of political arguments holding down the printing of banknotes and their delivery to other republics. The payment of wage increases granted ahead of the January price increases was partly postponed to the end of February. This delayed wage increase, together with the unblocking of 80 bn frozen rouble deposits[7], can be expected to refuel inflation and weaken the free rate of exchange of the rouble in March.

The target budgetary deficit of 1 per cent of GDP in the first quarter was not reached; low rates of tax collection (see below) and sustained expenditure levels (among other things due to wage increases have brought the deficit to about 10 per cent of GDP. This is still be a considerable achievement in comparison with a 20-25% of GDP deficit in 1991.

The expected and observed rate of inflation was much higher in January than the rates experienced at the inception of stabilization programmes in other post-communist

[7]. *The unblocked deposits were part of the compensatory payment made to depositors 1991 following the 2 April 1991 price rise. The compensation amounted to 40 per cent of deposits and was originally intended to become liquid in 1994. Out of the 156 bn roubles credited to depositors on that occasion, 40 bn roubles had been unfrozen already in 1991.*

economies (Table 2). It may seem excessive also because in 1991 open inflation should have virtually eliminated the rouble overhang, defined as the difference between the supply and demand for broad money in a shortage economy with administratively fixed prices (see Nuti, 1989). The detection and measurement of monetary overhang are always controversial because shortages may coexist with excess supply for some products and because the estimate of demand for money is a matter of modelling and conjecture; moreover, there is considerable uncertainty about the quantity of rouble monetary assets. According to the IMF (IMF et al., 1991) the overhang ("involuntary savings") amounted to 170 bn roubles at the end of 1990 (Table 3)[8]. Computing the rouble overhang at the end of 1991 assuming that the real value of voluntary savings remained constant yields an estimate of -95.3 bn roubles; this is impossible, because it would imply involuntary expenditure, but suggests nevertheless a drastic reduction and possibly the elimination of the overhang by end 1991, in spite of the very significant rise in savings and the compensations for price rises granted by the Pavlov government to holders of savings deposits.

Several other factors may have been responsible for high inflation: restrictive sales policy by monopolistic producers and traders; cost-push inflation arising from the 90% December wage increase, the introduction of VAT, the removal of subsidies and rises in administrated energy prices (400%) accompanied by a more accommodating monetary policy than intended in the programme; a reduction in the demand for money due to the fall in real interest rates; and also self-fulfilling hyperinflationary expectations, reinforced by official announcements and forecasts[9]. Not all these factors were unavoidable. It therefore seems that part of the January inflation outburst could have been avoided.

The price rise was not, and was not expected to be, accompanied by a positive supply response. A disturbing feature of Russian stabilization, however, is the lack of widespread availability of goods and services at the higher prices, of the kind that was established in a matter of days in, say, Poland or Bulgaria at the inception of their programmes. In spite of recent improvements there are still some queues, and shops appear to have small inventories on offer: a consumer's life is still far from "normal". This may be due to factors such as a dispersed and underprovided distribution network; the probably negative supply response of monopolistic producers; the depletion of stocks due to the early preannouncement and delay of price increases, and the award of wage compensatory increases ahead of price liberalisation. It could also be a symptom of underlying hyperinflationary trends, i.e. a generalised lack of confidence in the currency.

Finally, Russia does not seem to have experienced an increase in unemployment associated with output falls. GNP, which officially fell by 2 per cent in 1990 and by some 15 per cent in 1991, is expected to fall in 1992 by 10-15 per cent (government "Guidelines...") but this rate may well have been exceeded already in the first quarter. Russian registered unemployment is still being quoted by officials as standing at the November level of 51,000, though Social Affairs Minister Shokin[10] has predicted that Russian unemployment may grow from the 500,000 units at the end of 1991 to as much as 2 mn by the end of the year in the absence of western assistance. The apparent resilience of Russian employment is to be contrasted with the much more rapid response of other post-communist countries, where employment fell more rapidly.

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[8]. *Of these 110 bn roubles were considered the consequence of 1985-90 macroeconomic developments, and 60 bn were judgmentally attributed to long-standing micro-rationing. Other estimates were in the 110-260 bn rouble range (see Vavilov and Vjugin, 1992).*

[9]. *In December 1991 officials repeatedly quoted a 250% price rise forecast. Enterprises used to administered price reforms may have taken this forecast as an official instruction to rise prices. It is reported that in Ukraine very detailed price 'forecasts' for individual products were published by branch ministries.*

[10]. *In a speech given in London in mid-February 1992.*

3. Specific aspects of the Russian programme.

The Russian programme represents a clear break with the past and a bold attempt to move towards a fully fledged market economy. It shares the basic merits and drawbacks of the Polish approach; it also has a number of specific features, whose wisdom is open to question. On the positive side, the programme has the merit of having abandoned, at long last, a misguided commitment to hold down prices administratively in the face of the cumulative impact of many years of fiscal and monetary indiscipline. Moreover, there is an attempt to establish the fiscal and monetary discipline necessary to contain the initial price increase and prevent its transformation into an inflationary spiral, which would jeopardise the orderly establishment of markets, recovery of supplies and the resumption of growth.

The January package does not include the current account convertibility typical of the Polish approach, but suggests the possibility of its introduction subject to substantial western assistance; the April package confirms this prospect and indicates a policy first of floating then of fixed rates. With the benefit of hindsight the postponement of convertibility may prove more damaging than it might have been anticipated. Convertibility would enhance competition; "import" a price structure and avoid the distortions of multiple exchange rates and of a severely undervalued free rate; prevent the supply disruptions due to intermediate goods producers switching from domestic users to exports in search for foreign exchange; provide a clear reference for the pricing of interrepublican trade; reduce if not avoid capital flight. If credibly was established, convertibility would restore confidence in money thus holding down the rate of inflation (see Vernikov, 1992).

Other features of the programme are debatable; they are not part of the standard approach but are specific departures from it[11]. For a start, while the postponement of convertibility was imposed by the lack of western support for the time being, there is no justification for the preservation of a wide range of multiple exchange rates. At the end of January 1992 one US$ was converted into: 5.4 roubles for centralised imports, 110 roubles for the compulsory surrender of 10 per cent export revenues (intended for the creation of a reserve fund), 55 roubles for the compulsory surrender of 40 per cent for oil and raw materials export revenues (to finance a debt service fund); 117 roubles for tourist transactions; 110-160 for purchases by Russian citizens (up to 200 US$ a year, a limit often waived by banks, at a price); 230 roubles in small scale auctions of foreign exchange to Russian producers. At the same time rates were under discussion of 8-10 roubles for western investors and their participation in Russian privatisation, and 20-30 roubles for the conversion of world prices in inter-republican trade. This benchmark, which is also the target indicated for a fixed exchange rate in 1992, is based on a purchasing power parities approach to exchange rate determination. If only for reasons of consistency, convenience, diffusion of world price information, exchange rates should have been unified without further delay. At most a free and a controlled rate might have been allowed temporarily. None too soon, exchange rate unification is envisaged for implementation in April 1992.

Persistent disagreements between the government and the Russian central bank - which is not answerable to government but to parliament - over the objectives and the conduct of economic policy have rendered monetary policy a weak element of the overall reform package. After the central bank had initially refused to support macroeconomic

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[11]. *Some detatable features of the Russian programme are common to other Polish-style programmes: the abatement of import duties, which then had to be restored as in Poland; the excessive devaluation of the free exchange rate; the two-stage price liberalisation, potentially inflationary through its impact on expectations and wage claims; an inadequate wages policy, first allowing an excessive drastic fall in real wages and then attempting to contain wage claims through ineffectual taxation of excess wages.*

stabilization, it claims to have changed course radically in January, and to have set a very restrictive ceiling for credit expansion in line with the government's policy stance.

There are remaining drawbacks, however. The notion that monetary restraint might be implemented by holding back the supply of banknotes is most peculiar: every known monetised economy may control the total quantity of money but must leave to the choice of the public and banks the volume of banknotes and coins in circulation; the subsequent necessary reduction of the artificial banknote shortage only contributes to refuel inflation. The parallel unfreezing of rouble deposits (see above) will have made impossible the achievement of planned monetary restraint.

The Russian programme avoids the Polish extreme of raising interest immediately to positive real rates and of imposing the higher rates not only on new contracts but also on old loans, amounting to a questionable tax on liabilities. However the programme goes to the opposite extreme of holding real interest rates to down to numerically high negative levels[12].

The preannouncement of price rises long before their actual occurrence - several times in 1991, then ahead of the January liberalisation - will have depleted stocks completely through speculative purchases.[13] This phenomenon will have been aggravated by the award of compensatory wage increases long before price rises: while the protection of minimum levels of real wages might well require substantial money wage increases together with price increases, their pre-payment has adverse effects on the depletion of inventories and has no justification.

The replacement of the 5 per cent sales tax by a Value Added Tax was, in principle, a good idea; with due preparation it could have been implemented in due course. In Russian circumstances this VAT risks being treated as a cascade sales tax, circumvented through barter transactions, ignored or evaded, while levied at a punitive rate when observed. Indeed, preliminary figures from the first quarter indicate a very significant shortfall in tax revenue.

It is understandable that large scale privatisation of state enterprises might take some time; however there seems to be no justification for the further delay of small scale privatisation of housing, land plots, retail and catering establishments, buildings and chunks of redundant equipment. While the Yavlinsky-Shatalin "500-Days" Programme of September 1990 was unrealistic in expecting privatisation to make a significant contribution to stabilization (Commission of the EC, 1990), the current programme postponement is a move to the opposite extreme.

4. Specific structural features of the former Soviet Union.

An assessment of the Russian programme should consider not only its specific features, reviewed above, but also a number of specific structural features of the former Soviet Union. Among these, the only feature favourable to Russia is the production and export of oil. However Russia seems to have suffered from an earlier Soviet Dutch-style disease, namely the dilapidation of oil revenues and of oil-revenue backed loans used to sustain excessive domestic absorption and to maintain an otherwise non viable

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12. *After the January price rise ex ante real rates will have risen with respect to December, but are still very significantly negative; however during January current actual real rates will have fallen instead.*

13. *It may be argued that it was politically necessary for a government committed for so long to price stability to announce its change of policy. However there was no need to announce the actual dates and the decided or predicted price levels.*

economic system[14]. Today Russia has costly marginal supplies of oil and gas, shrinking output and exports, with still large but very rapidly falling deliveries to the other republics. This gives considerable bargaining power to Russia in negotiations with other republics (see sections 5 and 6) but does not reduce the opportunity cost of domestic oil uses and therefore does ease the task of energy saving and capacity restructuring in Russia.

All the other specific structural features of the ex-Soviet/Russian initial conditions are unfavourable. First, the collapse of the two pillars of the Soviet state - the communist party and its command structure parallel to state organs, and the central organs of the Union organs - has implied devolution of some state powers to large cities and to republics but also a net loss of state power. This is visible through the collapse of tax collection[15] and the current difficulties with the enforcement of compulsory surrender of part of export earnings.[16] It is also visible through the manifest rise of organised interest groups appropriating state assets and privileges - all phenomena falling under the Russian label of "Mafia" but encompassing much more than organised crime, which is also on the rise.

In spite of the significant Russian reliance on private food supplies in the kolkhozian market, there is no significant tradition of private enterprise, no private ownership in agriculture wholesale or retail trade. In agriculture privatisation has affected no more than one per cent of cultivable land and there are still ideological and legal obstacles to private ownership. Wholesale trade is being conducted by various commodity exchanges, still fairly small scale (the largest, Moscow Commodity Exchange, has a turnover of 5 bn roubles a month); retail outlets are either parts of large scale trading state enterprises, or parts of production enterprises catering for the needs of their employees: both kinds of outlets are difficult to commercialise and privatise. The large growth of the non-state sector, now totalling 7.5 mn employees, is almost entirely accounted for by the so-called cooperative sector, about 85 per cent of which represents offshoots of state enterprises founded to circumvent price and income ceilings and limits to the conversion of bank money into cash.

The weight of the state sector, largest amongst all post-communist countries, is aggravated by the large size of the military complex, at the same time hoarding (and now disposing to its own advantage) valuable resources and administering worthless plants. It has been found (Hare and Hughes, 1991) that in Poland, Hungary and Czechoslovakia the proportion of 1989 industrial output yielding negative value added at 1990 international prices is of the order of 20-25 per cent. Duchêne and Senik-Leygonie (1992) estimate this proportion to be of the order of 12%, but the high incidence of the military complex and of heavy industry, and their relative concentration in Russia, might make it closer to the higher bound of the range found for CEECs.

Among the legacies of central planning in the ex-Soviet area there is extreme concentration of output, by enterprises and their associations, and by republics. Adverse implications of these structural feature are monopolistic price and output behaviour after liberalisation, and the cascade supply multiplier effects of republican recession and increasing barriers to inter-republican trade (see below). The overall degree of inter-republican trade openness, specialisation and mutual dependence, is very high in general but is asymmetrically low for Russia and Kazakhstan. Conversely, openness to world trade is low and, on the export side, concentrated on oil and raw materials where

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[14]. *The Soviet variant of the disease differs slightly from the classical case, i.e. non-competitiveness of non-oil exports due to an over-valued rate of exchange boosted by oil exports.*

[15]. *The Soviet rate of tax collection is reported to have fallen from 80 per cent of expected revenues in February 1991 to 17 per cent in September 1991. In Russia this rate appears to have improved after stabilization but is still unsatisfactory. For instance, on 26 January 1992 Deputy Premier Yegor Gaidar complained that from 20 January VAT had been abolished in the Russian republic of Buryatia, at the same time applying for subsidies from the Russian budget.*

[16]. *Capital flight has been estimated to have been of the order of US$ 14 bn in 1991 (IIF, 1992).*

either supply difficulties prevail (e.g. oil) or exports from the ex-Soviet area drive prices down in an already depressed world market (e.g. aluminium, nickel, uranium).

A most important structural feature of the post-Soviet scenario is the continued existence of a rouble zone, and the precarious arrangements (discussed below in greater detail) that at present see Russian control of the money supply - essential for the success of the programme - potentially disrupted by republican expansion of rouble substitutes and credit. Russian stabilization and reform includes therefore the coordination of republican monetary and fiscal policies, a smooth transition to republican currencies and a coherent framework of operation for a rouble Zone that is likely to remain in operation still for some time.

Last but not least, there is the sheer size of the ex-Soviet economy. The level reached by Soviet GNP is now regarded by western and Russian sources as much lower than previously understood; estimates of the 1989 Soviet total GNP have fallen from 51 per cent of the US level (the geometric mean of ratios of 66 per cent at dollar prices and 39 per cent at rouble prices) to 43 (CIA), 28 (Aslund) and 25 per cent (Soviet estimate), right down to 10 per cent in recent successive revisions. However in terms of population, the maintenance of minimum consumption levels, the restructuring of existing productive capacity, the tasks are still very large. Just as the tasks of central planning were regarded as growing with the square or perhaps with the cube of the size of the economy to be planned, it can be argued that the transition of a formerly centrally planned economy also increases more than proportionally with size; if nothing else, attracting to the ex-Soviet amounts of foreign investment comparable to that already attracted or plausibly expected for the smaller countries of central and eastern Europe appears an immense task.

These adverse structural features have a number of significant implications: a relatively higher cost of transition, with respect to other post-communist countries; the need to tailor the standard stabilization package to Russia's special position within CIS; the need for western technical assistance and large scale financial conditional support.

A low and sluggish supply response is to be expected, more so than in comparable economies; action is required more urgently to close down as soon as possible those activities which do not yield a positive value added, and at the same time to protect through temporary tariffs and subsidies those activities which although unprofitable still produce sizeable positive value added. Privatisation, which in comparable countries has already proven much slower than anticipated, appears to be at the same time more urgent and more difficult, except for small scale privatisation, that should be speeded up. The understandable anxiety to replace the old system with private ownership and enterprise should not lead, during the time unavoidably taken by privatisation and by the building of the financial institutions necessary to make it effective, to neglect the reorganisation and rationalisation of the state sector. The need to free trade and to introduce current account convertibility as soon as feasible appears greater than usual, in spite of the adverse circumstances of low elasticity of supply and demand. Finally, there is a need to establish a trade regime that preserves interrepublican short term relative advantages and at the same time is conducive to system reform, and to establish a stable monetary regime in Russia and the other republics - both temporary for the short term and in a final form for the longer term - consistent with sustained interrepublican trade. The rest of this paper is devoted to these major issues of trade and money.

5. Inter-republican economic relations

Since 1990 when aspirations to republican independence began to be asserted, the interaction between "perestroika" and republican devolution has been widely investigated

in western literature (see Commission of the EC, 1990; Havrylyshyn and Williamson, 1991; Williamson, 1991; Gros and Steinherr, 1991; Gros, 1991; Braga de Macedo and Pisani-Ferry, 1991; Bofinger, 1992; Havrylyshyn, 1992). The most debated issues included: whether devolution was conducive to reform, i.e. whether reform would be better achieved through decisions imposed from the centre or through the competition of republican regimes; whether stabilization needed to and could be coordinated; whether republics should form an economic union; and whether and under what conditions they should retain a single currency.

The basic analytical framework of this discussion, adapted from standard theory of economic and monetary integration, was that n republics had to choose whether or not to coordinate their policies and to assign policy functions to the Union. This literature has failed to take into account that Russia was not just a larger than average republic: the power struggle between the Russian and the Union leaderships ended with the disappearance of the Union, Russia has restored its historical position and has become again the centre of the post-Soviet area.

This new situation is the result of Gorbachev's failure to secure consensus on a reformed Union, a possibility already problematic before the failed putsch and totally discredited afterwards; the formal dissolution of the Union was also instrumental in eliminating Gorbachev from the political scene. Moreover, for Russia the costs of interrepublic coordination probably exceeded benefits. Strategically, it was time for Russia to abandon the fiction of equal and sovereign republics; economically, stabilization and reform could no longer be delayed awaiting the build up of Union-wide consensus; politically, the Russian leadership was bound to give priority to the welfare of its own constituencies. As a Russian policy-maker forcefully put it, the choice between shock therapy and gradualism could not be made at the negotiating table, but had to be made by elected leaders responsible before the voters[17].

The Russian takeover of the former Union has brought fundamental changes in the nature of the inter-republican game, by narrowing the options open to independent states, now confronted with a *fait accompli*. Radical reform has been undertaken unilaterally by Russia; other states now must either follow or protect themselves from the consequences of Russian policies. After Russian price liberalisation, other states must either follow or close their borders. Russia has taken over the former Gosbank and manages the formerly Soviet rouble; other states now must choose between individual participation in the Russian rouble zone, and the introduction of a republican currency. The issue is now not whether republics will cooperate or be coordinated by the centre, but whether they will individually participate in some form of economic and monetary cooperation zone centered on Russia.

What was, and still remains, undecided was whether a new leader-followers pattern would replace coordination among formally equal states, or whether the demise of the Union would soon lead to a complete disintegration of the Soviet area. Clearly, Russia intended -and still intends- to take the leadership, if only because it is interested in the welfare of the 25 million Russians living in other states. The other states would gain full political sovereignty and could implement reform at different paces, but they would continue to follow its lead and to remain in its area of influence. This was in fact the rationale behind the takeover of Union institutions and the very purpose of the CIS.

However, the CIS barely exists and the viability of any inter-republican economic arrangement is open to question. For the states, the basic question is whether they have a short run economic interest in remaining in a Russian-led economic and monetary zone. This depends on the nature of each state's trade links with the rest of the former Union, on its commitment to reform, as well as on the economic performance of the Russian-led zone. For Russia, the basic question is what price it is ready to pay for

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[17]. *Alexei Mozhin at the LSE inter-republican conference, October 1991.*

economic leadership through the acceptance of some constraints on its policy autonomy, protracted provision of oil and raw materials at subsidized prices, and the sharing of seigniorage revenues with the other members of the rouble zone. The contradiction between Russia's aspirations to leadership and its very limited resources in the short term is at the heart of most recent inter-state developments.

Interrepublican agreements are in any event bound to be difficult to design, negotiate, and enforce. Coordination costs are probably so high that stable interrepublican agreements might be out of reach for the new states alone. The issue the international community has to face is therefore it should be ready to pay for the costs of coordination, i.e. whether it should provide incentives to conclude such agreements, assist in their design, and monitor their implementation.

Reform in other states

Russia's new policy course has left most other states in disarray. After feeble attempts to delay the January price liberalization, they passively followed Russia's bold move and implemented without major changes the new Russian price and tax legislation. However, the command system is generally still in place through the dominant role of state orders; plans for reform, if any, are still at a very preliminary stage. Even in Ukraine, one of the strongest and most independence-minded states, authorities have initially reacted to Moscow's new policy course in a passive and frequently perverse way. It has followed price liberalization and tax reform, but implementation was inadequate: price liberalization was in fact largely interpreted as an administrative price reform, and VAT was implemented as a cascade sales tax. Ukraine has also taken steps towards introducing its own currency with the issue of multi-use coupons, but the way in which this was done has had very damaging effects (see below).

The March annoucement by Russia that energy prices would be fully liberalized on 1 May has given rise to strong protests by the other states, which have appealed to Russia to delay this measure until October[18] (at the time of writing it seems likely to be delayed until summer). Ukraine has also drawn up plans to urgently introduce its own currency in order to protect itself from the effects of Russia's policy, a move which has been interpreted as a setback for economic reform.

In the long run, republics have little choice but to reform their economies. Independence will probably prove to be conducive to reform because it will allow tailoring policies to local conditions and will foster acceptance by the population of the initial welfare costs of transition. But in the short term, independence has added new obstacles on the road to reform. Part of the drive to independence was triggered by the belief that it would offer a chance to steer clear of the turmoil elsewhere in the Union, and to weather the storm by keeping the old system essentially intact. Institutions of statehood are being built on the vestiges of old Union bodies which existed to execute detailed instructions from Moscow. Policy design and implementation are entirely novel tasks for them. Very few people have the required training or experience. This makes it exceedingly difficult to define a coherent strategy for creating a market economy on the ruins of a defunct planning system.

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[18]. *The appeal was issued on 2 April by Belarus, Kazakhstan, Kyrgystan, Moldova, Uzbekistan and Ukraine.*

6. The trade regime

The importance of trade is paramount in reforming economies of Central and Eastern Europe. But for the most dependent, Bulgaria, total exports represented 34% of GNP, and exports to the Soviet Union and other CEECs 73% of total exports[19]. Yet Ukraine, which is one of the least trade-dependent states (beside Russia), is approximately as open, and makes 85% of its exports to the rest of the former Soviet Union. For thirteen out of the fifteen former republics, trade with the rest of the world is less than one-sixth of total trade (Commission of the EC, 1990; IMF and al., 1991). Furthermore, interdependence is amplified by long-standing supply-side connections arising from the organization of production at the all-Union level (Sapir, 1992).

This pattern of integration is a by-product of central planning and associated policies of domestic autarky, as well as artificially low transport costs[20]. Liberalisation of prices and trade will necessarily redirect trade, probably away from inter-republican to domestic and international outlets. In the short run, however, there are temporary comparative advantages and inter-republican complementarities arising from existing capital stocks, technical standards and product lines. Opportunities of trade with the rest of the world suffer limitations because of inadequate product ranges and differences in technical standards. These factors are of little importance for trade in 'hard goods' like oil, raw materials, foodstuffs and primary manufactures, which could be relatively easily exported to the rest of the world, but are of major relevance for 'soft goods', i.e. finished manufactures and processed food products. Furthermore, producers accustomed to deliver their products according to central planners' instructions have to learn how to behave in a market environment. This "learning by doing" process could take place more smoothly through the initial replacement of traditional planned deliveries by direct interenterprise contracts within the ex-Soviet area.

These arguments are related to a wider discussion on trade policy during the transition. McKinnon (1991) has put forward a strong argument in favour of temporary trade protection during the transition to the market: while prices can be changed overnight, producers may need some time to adapt their capital stock, technology and product range to the new environment; otherwise, even efficient firms could go bankrupt. However the same argument does not apply to inter-republican trade, because firms located in different republics start from similar initial conditions and therefore can compete with each other. Moreover, as long as restrictions to competition from the rest of the world remain in place, there is a strong case for maintaining free trade between the former republics in order to limit the extent of monopoly power. A case can therefore be made for the setting up of an inter-republican trade framework that would maintain trade links open and foster the development of enterprise-to-enterprise trade while granting producers with some degree of protection vis-à-vis the rest of the world[21].

Thus the challenge of inter-state trade policy is to design and implement arrangements that will allow significant adjustments to take place in the long run as a result of the transition to a market economy, while preventing in the short run policy-induced trade disruptions that would result in excessively high costs to all the republics in terms of value added lost during the transition. For this it is essential to move from the present system of bilateral barter and state purchases (*goszakazy*, literally state orders) to direct inter-enterprise trade, at the same time avoiding trade contraction due to non-cooperative policies.

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19. *See Collins and Rodrik (1991).*

20. *Gros and Dautrebande (1992) find that the pattern of trade among the republics is surprisingly similar to the prediction of a gravity model of trade. However, this only regards the structure of aggregate interrepublican trade flows, as opposed to both the product composition of trade and the respective shares of interrepublican and international trade.*

21. *For a discussion of principles for inter-republican trade policies, see Pisani-Ferry and Sapir (1992), and Layard and Sapir (1992).*

Recent trends in inter-republican trade are not encouraging. Even before the dissolution of the Union, a tendency towards bilateral and barter agreements was apparent. This trend accelerated after the failed putsch and led to the negotiation of a matrix of bilateral agreements aiming at preserving existing flows of goods. These agreements generally set a target for the total volume of trade and regulate its product composition. In practice states are committed to deliver goods at fixed prices, and agreements aim at achieving some degree of bilateral balance or pre-set agreed imbalances. The agreements' main effect is thus to replicate in a decentralized way the former centrally planned allocation of goods - a clear turn for the worse. Quite naturally, they imply for most states to rely on state orders in order to make sure that promised goods are actually delivered (Yasin, 1992).

These trade agreements are however not easily enforced, because suppliers give priorities to the domestic market, exports to the world market, or participate in inter-republican trade through direct enterprise-to-enterprise barter transactions. These moves are frequently encouraged by local or regional authorities aiming at improving the region's access to goods and its terms of trade. States often retaliate by requiring export licenses for inter-republican enterprise transactions or by banning deliveries altogether, thereby both limiting the development of market relations and contributing to a further disruption in trade links. The present pattern of inter-republican trade has therefore been equated to an archipelagus of islands connected by narrow bridges.

The Russian government has recently attempted to reach an agreement on a more market-oriented trade regime. Discussions were also held at an inter-republican conference in Brussels on a draft code of conduct for inter-republican trade (see Gros and al., 1992). All states are in principle interested in meeting this challenge, but the stake is clearly not the same for all. A very rough measure of the potential cost of trade collapse can be derived from the volume and product composition of inter-republican trade. Assuming that hard goods can be sold abroad, the cost of trade collapse for each state would depend on its exports of soft goods, which could not be sold on other markets (Table 4)[22]. While the figures in Table 4 are clearly upper bounds, it is apparent that the potential cost of interrepublican trade collapse is relatively small for Russia and Kazakhstan, substantial for Ukraine, and huge for all other states.

Table 4 also indicates the leverage Russia can expect to exert in bilateral discussions with other states. Asymmetry in these discussions does not arise only from Russia's size and limited dependence on exports of soft goods, but also from the fact that a republic's relation with the other republics depends crucially on its membership of the Russian rouble zone (on this question and the implications of republican currencies see next section). The last column of Table 4 therefore gives the ratio of the state's potential loss to that of Russia in the event of withdrawal from the Russian-led zone. It is apparent that Russia has leverage over all states except Kazakhstan, especially over Belarus and a number of other states; Ukraine appears to be in a middle situation, although it has clearly more to loose than Russia in a collapse of its trade with the rouble zone.

In spite of Russia's leverage, however, reaching a trade agreement raises considerable difficulties. First, there is widespread resistance in many other states to the abolition of state orders, whether due to reluctance to reform or to heavy dependence on soft good exports. Auctioning export licenses, as Russia intends to do, is much more easy for oil and raw materials than for machinery. The difficulty of designing interim agreements is that they must anticipate tomorrow's market system while taking into account the present realities. Second, the independent states are reluctant to accept the essential principles of multilateral trade, in particular the principles of non-discrimination and freedom of transit; indeed, some states may be tempted to use the threat of high transit

[22]. *The cost of trade collapse would also arise from a fall in imports, which can lead to supply disruptions. However, hard-currency revenues from exports of hard goods could always be used to buy soft goods for dollars from the other states.*

levies as a way to gain leverage in their negotiations with Russia. Third, enforcing any agreement may be extremely difficult as states are not members of GATT and are presently not subject to any kind of trade policy discipline[23]; moreover, the control of state authorities over regional authorities is open to question.

Getting an agreement on a code of conduct for trade and enforcing it may therefore prove to be a difficult goal to reach in the absence of international support. This is even more true as the terms of trade dispute interferes with the redefinition of the trade regime.

Changing the terms of trade

Terms of trade have only recently begun to be explicitly considered in inter-republican negotiations. It is well known that former Soviet pricing of tradables led to very high implicit cross-subsidies, possibly amounting to 15% of GDP for some states, though estimates are controversial[24].

The trend towards an early elimination of implicit subsidies - now made transparent by the high free price of dollars, which can be used to measure the opportunity cost of inter-republican transactions - is very clear, as no state can afford to subsidize neighbours at such a difficult time. This applies in particular to Russia, whose implicit transfers to the other states is reckoned to be of the order of 5% to 10% of GDP. The Russian government is under pressure to reestablish command over its resources, both to make up for the 25-30% drop in oil production, and to balance the budget.

A compromise solution was considered, which basically consisted in setting to zero or to a pre-set limit inter-republican deficits measuring trade flows at world prices, while continuing to use domestic prices for trade invoicing. This would have been more inefficient than the last stage of CMEA trade arrangements, which involved trade at world prices and settlement in hard currencies. These arrangements led to a drastic trade contraction but at least producers and users were faced with actual opportunity costs and settlement was automatically multilateral. The compromise described here would have neither advantage, it would retain the drawbacks of the CMEA regime and, moreover, could only be implemented through state orders.

The Russian February proposal includes raising the price of basic commodities up to a ceiling closer to the world price: a shadow exchange rate would be used for that purpose, of the order of 25-30 roubles for US$, but settlement would be in roubles without aiming at pre-set inter-republican trade balances. This would be a much better system, however it is doubtful that such an interim agreement would last for long. Strong forces, both micro- and macro-economic, are pushing in the direction of an early move to world prices in inter-republican trade.

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23. *A court of arbitration is to be created in July 1992.*

24. *See Commission of the EC (1990) and, for an attempt to measures distortions in relative prices, Duchêne and Senik (1992). Estimates of inter-republican transfers rely on the comparison between Soviet domestic and foreign trade prices (improperly labelled 'world prices') for individual foreign trade classification items; this comparison is open to criticism, both for soft goods (because of the lack of goods comparability) and for hard goods (because of the former CMEA's peculiar pricing rules).*

7. The monetary regime

The early aspirations to republican independence had been accompanied in most republics by announcements about the introduction of national currencies[25]. Before stabilization the unilateral introduction of a republican currency replacing the rouble would have shifted onto the other republics the burden of rouble overhang, causing either higher prices or shortages there. The last republic to introduce its own currency would have born the burden of any residual overhang. The understanding of the aggressive nature of unilateral introduction of national currency, the fear of trade retaliation by Russia, the recognition that it would be a zero-sum game, are the factor that may have prevented the introduction of republican currencies before stabilization. Only rationing coupons (i.e. rouble complements, for general purchases of consumption goods have been introduced before the January stabilization in order to ensure stability of supply to local residents.

In that context, the design of a post-Soviet monetary system has been discussed by Western scholars considering weather the ex-Soviet republics should retain a single currency, or establish an alternative regime of exchange rates and payments with national currencies. Nobody had foreseen that the rouble would be declared to be the currency of Russia without ceasing to be that of the other states, and without the central bank(s) being subject to precise rules on the issue of currency.

At the end of 1991 the central bank of Russia - technically a branch of Gosbank - took over the Union's Gosbank and all its subsidiaries throughout Russia, including the Mint whose printing facilities happened to be located in Russia. This surprising move was the result of Russian authorities' decision neither to introduce a republican currency (for instance through the overprinting of existing banknotes, as it had been suggested), nor to attempt a genuine monetary union with the other states[26]. As a result, the rouble remained legal tender in all other states, while the central bank of Russia is answerable to the Russian parliament only, and has no relation whatever with CIS bodies.

Monetary and foreign exchange regulations issued by the central bank of Russia apply only on Russian territory. Republican central banks have no legal obligation to implement Russian currency regulations. Banks located in different states are therefore subject to different reserve requirements, refinancing rates and foreign exchange surrender ratios. Exchange rates also differ from one state to another: at the end of March, the central bank of Belarus was selling roubles for dollars with a 10% discount, and at the same time obliged Belarussian exporters to surrender their hard-currency earnings at a rouble-dollar exchange rate overvalued by some 50%[27].

The central bank of Russia controls fully the issue of rouble banknotes - essential for wage payments and retail transactions - and their distribution to other states. The Russian central bank's failure to ensure adequate deliveries of banknotes to the other republics is due to a number of reasons: a shortage of banknotes due to unexpected hyperinflation, debates over the scale of printing, as well as a misguided attempt at holding down inflation through the quantity of banknotes rather than the quantity of money. The failure to deliver banknotes to the republics started a fierce controversy over "unfairness" in the distribution of cash and the undue appropriation by Russia of seigniorage revenues.

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25. *The Lat in Latvia, the Lit in Lithuania, the Kroon in Estonia, the Hryvnia in Ukraine, the Marchvili in Georgia, the Altyn in Kazakhstan.*

26. *The first solution would have implied Russia taking responsibility for the risk of initiating a disintegration of the former Union. The second had been abandoned after the failure of negotiations during the Autumn on the forming of a "banking union".*

27. *Reuters, 20 March 1992.*

Ukraine reacted to the shortage of roubles by precipitating the transformation of coupons from rouble complements to rouble substitutes. In January 1992 25% of all wages were paid in coupons, which in turn were deemed the only legal tender in state shops. This proportion was raised to 75% in March, with the coupon becoming the only legal tender for all cash operations. However non cash operations continue to take place in roubles: all bank and savings deposits are rouble-denominated, and coupons deposited with banks are accounted for at a fixed 1:1 exchange rate. Coupons can therefore be considered surrogate roubles, whose issue increases liquidity throughout the rouble zone. Other states already use standard or sophisticated rationing coupons[28], but have not yet replaced the rouble by these multi-purpose coupons. Belarus was recently reported to consider their introduction.

The regime applicable to bank money and credit is much less clear. The Central bank of Russia introduced in January correspondent accounts for interrepublican payments in order to control interstate rouble flows. Republics running a current account deficit therefore must pay interest on their overdraft. It has however been reported that most inter-republican transactions still take place through the traditional all-Union settlements system (MFO), which allows direct branch-to-branch interbank transfers. Correspondent accounts are merely statistical records, and former Gosbank subsidiaries in the republics, which have been transformed into national central banks, seem to be able to extend unlimited rouble credit to their governments or the commercial banks on their territory, while Russia de facto validates this money creation by accepting payments in roubles from the other republics.

The Soviet rouble zone therefore still exists, but it is increasingly fragmented. A measure of the present degree of monetary fragmentation is given by the spread of interest rates across the former Soviet Union (Table 5) : it is apparent that rates differ by bank and location. In January, lending rates were as low as 13% in Turkmenistan and reached 50% in Latvia. On average, rates were about 5 percentage points higher in Moscow than in the rest of Russia, where in turn they were 5 percentage points higher than in the other CIS states.

The present system is similar to that prevailing in 1991, when Gosbank was theoretically responsible for overall monetary policy, but was not able to enforce agreed ceilings on credit extended by the republic central banks (Alexashenko, 1992; Vavilov and Vjugin, 1992). The difference is minor: in 1991 Gosbank could not refuse to finance republican budget deficits; the Russian Gosbank today does not have such an obligation but cannot dictate to republican central banks and prevent them from expanding credit. The irony is that the Russian central bank, which was probably the least disciplined of all in 1991, has now taken responsibility for overall credit policy.

Without policy coordination such a regime is inherently unstable. The central bank of Russia can inflict an inflation tax and collect seigniorage throughout the area, while republican central banks can upset its policy stance through republican credit expansion and the issue of rouble surrogates. However there are some countervailing powers: the quantity and price of Russian oil deliveries to the republics, some republics' ability to levy duties on the transit of Russian trade flows. If pushed, Russia could decree or ban on inter-republican transactions or decide to introduce its own currency.

A degree of built-in stability may be ensured by the mutual offsetting of the system's negative features: the combination of cash shortage and partial inconvertibility of bank money into cash results in monetary restraint, the barterization of trade reduces the spillover effects of credit expansion in one state, and barriers to trade prevent exporters

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[28]. *Lithuania has introduced a system of multi-use coupons, which however supplement the rouble for the purchase of a large range of goods. All wage-earners get free coupons with their rouble salary, and additional unlimited amounts can be bought at a fixed exchange rate. The system therefore combines rationing and subsidies for basic consumption.*

from circumventing national foreign exchange regulations. Nevertheless, the danger remains of Russia's attempts at macroeconomic stabilization failing because of the inherent instability of the rouble zone monetary system, bound to become more and more acute over time.

When new currencies ?

Ukraine, Moldova and the Baltic states have indicated their intention to introduce national currencies in the coming months. Representatives from the other states occasionally regard national currencies either as a long-term goal, or as potential retaliation if Russia refused joint decision-making for the management of the rouble zone; however their short-term aim seems to be to remain within the rouble zone[29].

National attitudes towards the introduction of an own currency appear to depend more on the importance attached to political independence than on to economic conditions or reform plans. On purely economic grounds, a state's determination to introduce an own currency should be related to the degree of fulfilment of these conditions: (i) the wish to de-couple its economic and monetary policy from that of Russia; (ii) its exposure to large asymmetric shocks - for instance from the very process of stabilization and reform - requiring real exchange rate adjustments; (iii) its ability to easily substitute trade with the rest of the world to trade within the rouble zone. Ukraine (but not the Baltic states) would especially qualify on (iii), but has no other compelling economic reasons to take the lead. On (i), the least reform-minded states should paradoxically be the most forthcoming, since a national currency would allow them to delay stabilization and to keep the command economy in place in spite of Russian liberalisation. On (ii), Central Asian republics should be the prime candidates. The list of would-be republican currencies should therefore not be considered closed.

When will the new currencies be introduced ? An important lesson from the recent experience is that states committed to the introduction of a national currency may choose to proceed slowly. Estonia, for example, already in Autumn 1990 was announcing plans for the early introduction of a national currency. Other Baltic states have also made early announcements that have not yet been implemented .

There are simple possible explanations for this slow pace. Once the decision to implement monetary autonomy is made, there may still be good reasons for waiting. First, it takes some time to set up adequate monetary institutions, create the legislative and regulatory framework of monetary autonomy, and possibly begin to build up reserves (Hernandez-Cata, 1992); a republican central bank used to be a provincial window of Gosbank, without experience of monetary policy and without foreign exchange reserves. Second, whatever the long-term benefits of a national currency, in the short run continued membership of the rouble zone gives access to low-priced energy and raw materials. Russian policy-makers have explicitly linked the pricing of oil to the currency question, and subsidies of the order of 10% of GDP or more are large enough to induce the postponement of national currencies.

The passing of time and the inexorable move towards world prices in inter-republican trade, discussed above, are bound to decrease the weight of these arguments. But there are additional reasons for further delaying the switch to a national currency, from the viewpoints of trade, of stabilization and of political economy. The trade argument is that inter-republican trade flows risk being severely disrupted by the introduction of new currencies, if these currencies are not convertible from the outset. Solutions could be found through the setting up of a payments mechanism (Dornbusch, 1992; Gros, 1992), but since Russia has much less to lose than any other state in the disruption of trade

[29]. *This is one of the lessons of the recent Brussels conferences. See Gros and al. (1992).*

links, it can deter other states from taking the initiative of introducing a new currency[30]. This is the attitude of at least some Russian officials, rejecting solely to expose Ukraine to the risks of trade collapse. States may therefore wait until the rouble has become convertible and they are themselves in a position to move fast towards convertibility.

The stabilization argument is based on the desirability of a new currency primarily when there are sound reasons for the monetary policy stance to diverge from that of Russia. States might have wanted to stabilise and introduce a new currency simultaneously; starting - for instance in Ukraine - from a situation similar to that of Russia there is no real reason, now that Russia has already begun, to introduce a new currency at once: it is better to wait and see and revive the own currency proposals if Russia should fail.

Another reason for de-coupling national monetary policy from that of Russia could be the need for a real exchange rate devaluation (because of the oil factor), but in a highly inflationary environment this could be achieved through incomes policy while remaining in the rouble zone.

The political economy argument arises from the fact that, for countries in the rouble zone, Russia provides a perfect scapegoat for short-term reform costs. This was apparent in January 1992 when governments followed Russia's move to price liberalisation. Governments may therefore have an incentive to delay monetary autonomy until a large part of the reform costs have been borne. Reform-minded forces within state governments can also find an interest in shadowing Russia (specially if the domestic balance of power does not favour rapid reform), while conservative forces may advocate the introduction of a national currency in order to protect the command economy from necessary change. Such positions were apparent in recent Ukrainian discussions.

The absolute and relative weight of these arguments may be difficult to assess, but it is important to realize that the time lag before the introduction of national currencies might not be just a matter of arranging the printing of banknotes. If so, the management of the rouble zone in its present form becomes critical.

Managing the rouble zone

Stabilization can be expected to render the drawbacks of the current system more apparent; in the present context either stabilization is bound to fail because of a lack of overall monetary control, or Russia will have to introduce very tough measures, including a ban on inter-republican transactions or the introduction of its own currency. Thus the need to nationalise, at least temporarily, the rouble zone.

The urgency of stabilization does not leave time to reach an agreement on the principles and the institution of the rouble zone, in any case those states that intend to introduce their own currency would not participate in such an agreement. Yet the states could well contribute to excessive monetary expansion in the coming months. Simple rules are needed for the management of the rouble zone in the short term, which could be implemented immediately and which could ensure i) that states apply identical monetary and foreign exchange regulations, ii) that the volume of money in circulation can be controlled, and iii) that the distribution of cash and credit is fair.

For the first 3-6 months, after the launch of the programme this could be achieved through the implementation of very simple rules. For example, cash and credit could be distributed according to a criterion such as the share of national income in the overall

[30]. *For a summary of the debates on the payments union proposals see Gros and al. (1992).*

rouble zone[31]. A moratorium would be needed on the unilateral introduction of new coupons, and all central banks would have to apply the same reserve requirements and foreign exchange regulations. Such rules would neither be optimal nor determine the overall policy stance. Yet they would ensure fairness in the distribution of seigniorage and in the access to credit resources. They could serve as a useful bridge until new currencies are introduced and a more permanent solution is found for the states that wish to remain in the rouble zone.

Such an agreement would lose Russia its ability to distribute cash discretionarily, and part of the seigniorage revenues. But Russia would gain by neutralising the threat that its stabilization programme might be jeopardized by the other states' policies. The other states would lose some leeway but they would gain from Russia's commitment to follow clear rules in the distribution of cash and credit.

Ukraine and other independence-minded states will certainly resist a move towards limiting their monetary policy autonomy. Yet the status quo is a far worse alternative; unilateral measures taken by the Russian central bank would certainly be tougher. All states have a clear interest in finding a way to internalise the externalities associated with monetary interdependence. The question remains, however, whether an agreement can be reached on such principles through direct negotiations between the states. Here again, the costs of policy coordination are overwheleming : statistical information is lacking, states do not trust each other, they disagree on the policy targets, and the incentives to cheat are very high. Thus, there is a case for direct international involvement in the definition of monetary policy rules and the monitoring of their implementation.

8. Implications for Western assistance.

Since the Houston summit of 1990, major industrialized countries have been discussing the opportunity and the ways to assist reform in the Soviet area. The West has been fairly generous : according to EC Commission estimates total assistance pledged by the international community since mid 1990 amounted to $80bn in early 1992 (this assistance had been committed over a number of years, and only partly disbursed)[32]. It is estimated that about two third of this assistance, most of which consists in bilateral credits, had or will have an impact on the balance of payments, while the remaining third (technical assistance, maintenance of Soviet troops in East Germany and German take-over of former GDR claims on the Soviet Union) does not affect the CIS ability to import. A one year debt deferral agreement was also concluded at end-1991 between international creditors and the successor states of the Soviet Union.

In spite of its impressive size so far the impact of this assistance has been limited. Until the end of 1991, new credits have been largely compensated by a reduction in private banks' exposure. The tied character of bilateral credits has reduced flexibility. Loosely coordinated assistance has lacked the predictability needed to support a reform programme. Industrialized countries therefore need to overhaul their assistance to economic reform in the post-Soviet area, to enhance coordination and to increase the share of untied financial assistance.

The IMF is engaged in preparations for membership of the republics. An agreement on Russian membership and a 3% quota was reached at the end of March, and at the same time an assistance package of $24bn (of which some $13.5bn are new commitments,

31. *See Gros and Pisani-Ferry (1992) for details.*

32. *Three quarters of this amount have been provided by the EC and its member states, especially Germany.*

including $4.5bn support from the IMF, the World Bank and the EBRD and a $6bn stabilization fund) was announced. Other states are expected to be granted membership in spring or summer 1992. The IMF could then undertake standard monitoring and financing operations, which in turn is expected to trigger supplementary balance of payments assistance and support to convertibility by industrialized countries. Other agencies such as the World Bank and the EBRD will also begin to operate before the end of 1992. Industrial countries therefore tend to rely on the IMF for monitoring reform programmes, for providing initial macroeconomic assistance and for assessing needs for supplementary official assistance.

IMF leadership in international macroeconomic assistance is now fully established. Indeed, emphasis and stabilization and conditionality is clearly warranted in CIS conditions. The standard approach however has to be adapted in order to take into account specific features of the post-Soviet situation and to address three critical issues. The first is timing: by the time IMF assistance becomes available, Russia will already have passed the most critical stages of its stabilization programme. The second arises from the interrepublican dimension: a country-by-country approach is clearly necessary, but republics' financing needs depend on interrepublican trade in oil and other raw materials. "Stabilization in one country" is bound to fail if credit expansion in the rouble zone cannot be controlled. The third is implementation: adequate programmes are not sufficient if governments are unable to implement them. The risks of Russian fragmentation and the weak administrative capability of republic governments call for a careful monitoring of implementation as well as for a tightly coordinated influx of Western technical assistance.

Table 1: USSR Main economic indicators, 1990-91

	1990	1991
Real GNP	-2.0	-12.0/-17.0
Consumer prices inflation, Dec/Dec	10.0	145.0
Households'monetary assets (end-year), percent increase	16.0	57.1
General government deficit, % of GNP	6.0/10.0	20.0/25.0
Convertible currencies current account balance, $ bn	-7.3	-3.1

Source : National sources, EC Commission

Table 2: Immediate inflationary consequences of price liberalisation

(CPI, percentage change over previous month)

	Month 1	Month 2	Month 3
Poland January 1990	79.6	23.8	4.3
CSFR January 1991	25.8	7.1	4.7
Bulgaria February 1991	115.5	55.9	3.5
Russia January 1992	250.0	38.0	n.a.

Source : National sources, EC Commission

Table 3: Households voluntary and involuntary savings, 1989-91, USSR (end-year values)

	1989	1990	1991 e
Households' financial assets			
– Cash holdings	105,0	130,9	263,0
– Savings deposits	340,5	386,2	549,4
– Frozen compensation for price rises (1)			117,0
– Other fin. assets	52,6	52,7	52,7
– Total	498,1	569,8	982,1
Of which :			
– Voluntary savings	363,5	399,8	
– Involuntary savings ("overhang") (2)	134,7	170,0	
Real value of assets (1989 prices)			
– Cash holdings	105,0	119,0	97,6
– Saving deposits	340,5	351,1	203,9
– Total assets	498,1	518,0	364,4
Inflation rate (Dec/Dec)		10,0	145,0
Consumer price index	100,0	110,0	269,5
– Households' savings		71,7	280,0
– Compensation for price rises (1)			156,0
– Total			436,0
– Increase in financial assets			412,3
– Stock-flow adjustment			–23,7

Source : IMF and al. (1991), Gosbank, Press reports, authors' estimates
(1) 25% of the compensation was unfrozen in 1991
(2) IMF estimate

Table 4: Potential cost for individual republics of a disruption of trade links with the rest of the rouble zone

	Republic loss		Russia's loss		Republic loss
	roub. bn	% of NMP	roub. bn	% of NMP	/ Russia's loss
Armenia	2917,2	50,3	1043,9	0,3	2,8
Azerbaijan	3962,5	36,4	1961,8	0,5	2,0
Belarus	13869,4	52,9	4715,5	1,2	2,9
Estonia	2093,1	51,1	737,9	0,2	2,8
Georgia	3665,3	35,9	1835,8	0,5	2,0
Kazakhstan	3358,5	12,5	4841,5	1,3	0,7
Kirgizia	1914,3	38,3	899,9	0,2	2,1
Latvia	3649,8	52,1	1259,9	0,3	2,9
Lithuania	4114,8	46,2	1601,8	0,4	2,6
Moldova	3467,1	45,0	1385,9	0,4	2,5
Russia	44167,7	11,5	–	–	–
Tajikistan	1519,2	31,7	863,9	0,2	1,8
Turkmenistan	1326,7	28,2	845,9	0,2	1,6
Ukraine	24775,2	24,2	18448,2	4,8	1,3
Uzbekistan	5514,9	26,6	3725,6	1,0	1,5

Source : Calculations with Goskomstat data for 1989
Notes :

- *Republic loss is measured by exports of 'soft goods' to the rest of the rouble zone*
- *Russian loss is measured by Russia's exports of 'soft goods' to the state*
- *Calculation of Russia's loss is based on the assumption that exports are distributed according to states NMPs*
- *Finished manufactures, services, 50 % of chemicals and 50% of food products are considered soft goods*

Table 5: Lending rates in January 1992

	Mean	Standard deviation
Moscow	28,4	7,2
Other Russia	23,8	7,2
Other CIS	18,7	5,7
Baltic states	29,9	10,2

Source : calculations with a data on individual bank lending rates published in Commersant, 10 February 1992.

References

Aglietta M. (1992), "Des mécanismes de paiements pour les échanges entre les Républiques de l'ex-URSS", Economie prospective internationale n° 49, Paris.

Alexashenko S. (1992), "The Budgetary System of the USSR: Impossibility of Transformation", forthcoming in European Economy n°49.

Bofinger, P. (1992), "Options for a new monetary framework for the area of the Soviet Union", forthcoming in European Economy n°49.

Braga de Macedo J., and J. Pisani-Ferry (1991), "The path of reform in the Soviet Union", in A. Clesse and R. Tökés (eds.), The Economic and Social Imperatives of the Future Europe, Nomos Verlag.

Collins S. M. and D. Rodrik (1991), Eastern Europe and the Soviet Union in the World Economy, Policy Analyses in International Economics n°32, Institute of International Economics, Washington.

Commission of the EC (1990), "Stabilization, liberalisation and devolution : Assessment of the economic situation and reform process in the Soviet Union. European Economy 45.

Dornbusch, R. (1992), "A Payments mechanism for the Soviet Union and Eastern Europe", in Gros and al. (1992).

Duchêne, G., and Cl. Senik (1992), "Foreign trade liberalisation and redeployment in the former Soviet Union", in European Economy n°49.

Gros, D. (1992), "A Soviet Payments Union", Centre for European Policy Studies Working Document n° 58, November.

Gros, D., and B. Dautrebande (1992), "Inter-Republican Trade Patterns : Did Soviet Planners Follow the Rules of the Market ?, mimeo, Centre for European Policy Studies, Brussels.

Gros D., J. Pisani-Ferry and A. Sapir, eds. (1992), Interstate economic relations in the former Soviet Union, Centre for European Policy Studies Working Document, Brussels.

Gros, D., and J. Pisani-Ferry (1992), "The rouble zone : Simple rules for today and principles for tomorrow", in Gros and al. (1992).

Havrylyshyn O. (1992), "Why and when new currencies ?", in Gros et al. (1992).

Havrylyshyn O. and J. Williamson (1991), From Soviet disUnion to Eastern Economic community ?, Policy Analyses in International Economics n°35, Institute of International Economics, Washington.

Hernandez-Cata E. (1992), "Note on the introduction of national currencies", in Gros and al. (1992)

Layard, R., and A. Sapir (1992), "A code of conduct for inter-state trade", in Gros and al. (1992).

Nuti D. Mario (1989), "Hidden and repressed inflation in Soviet-type economies: definitions, measurements and stabilization", in C.Davis & W. Charemza (Eds),

Models of disequilibrium and shortage in centrally planned economies, Chapam and Hall, London 1989, pp. 101-146.

Pisani-Ferry, J. and A. Sapir (1992), "Trade and transition to the market : A survey of the key issues", in Gros et al. (1992).

Sapir, J. (1992), "Regional implications of the Soviet economic crisis", forthcoming in European Economy n° 49.

Vavilov, A., and O. Vjugin (1992), "Soviet Inflation", forthcoming in European Economy n°49.

Vernikov A. (1992), "Rouble convertibility and economic reform", in European Economy n°49, forthcoming.

Williamson J. (1991), "Soviet monetary disintegration versus European monetary integration : is someone making a mistake ?", International Economic Outlook, The London Business School.

Yasin E. (1992), "Economic ties and problems of commodity market formation in the CIS countries", in Gros and al., 1992.

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