New currencies in the Former Soviet Union: a Recipe for Hyperinflation or the Path to Price Stability?

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Abstract

By December 1993 most republics of the former Soviet Union (FSU) had introduced independent currencies. The paper traces the reasons behind the break-up of the rouble zone. For the early leavers (the Baltic states) the opportunity to pursue rapid stabilisation and a market economy was paramount. Other republics abandoned a common currency only after the failure to negotiate a new rouble zone with Russia.

The policy choices facing governments introducing new currencies against a background of high inflation are discussed. In the transition economies of the FSU, institution building and reform are needed alongside commitment to tighter fiscal and monetary policies. These requirements have not been fully embraced in all republics. As case studies show, independent currencies can be highly successful, but there are also risks of hyperinflation.

Keywords Rouble zone, independent currencies, exchange rate regime, stabilisation.

CURRENCIES IN THE FORMER SOVIET UNION: A RECIPE FOR HYPERINFLATION OR THE PATH TO PRICE STABILITY?

Introduction

1 Monetary arrangements in the fifteen constituent republics evolved rapidly and in diverse ways in the two years following the dissolution of the Soviet Union in December 1991. In part this reflected changing attitudes and events in Russia. For example, in August 1993, there was a sharp reversal of the previous policy of encouraging monetary separation, when Russia proposed a 'new rouble zone', covering itself plus five other republics. This would have made the rouble sole legal tender throughout the zone and put monetary policies under the control of the Central Bank of Russia (CBR).[1] However, in mid-November 1993, three republics abruptly withdrew from these negotiations. At the time of writing (March 1994) it seems that only two republics, Belarus and Tajikistan, are continuing to pursue monetary unification with Russia. Experience with new currencies in the FSU is at an early stage and has so far been very mixed. For example, the Ukraine was close to hyperinflation at the end of 1993. Only the Baltic states, which early on introduced their own currencies as part of a 'big-bang' approach to reform, have monetary arrangements which look durable and able to deliver sustained low inflation.

2 In any discussion of the FSU economies it is helpful to keep in mind some of the 'initial conditions'. Some of the republics have no history as nation states, having been absorbed into the Russian Empire in the early 19th

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(1) Some authors, eg Williamson (1992), draw a distinction between a rouble 'zone', with the rouble used as a common currency under a single monetary authority, and a rouble 'area', in which each country may have a separate currency but uses the rouble for international purposes.

Century. Others were subsumed into the Soviet Union in 1917 or shortly after. Only the Baltic states have more recent experience of independence, having lost their independence in 1939 and been taken over by the Soviet Union in 1944. Russia remains the dominant economy, responsible for about two thirds of total FSU GDP. It probably still accounts for three quarters of trade for most republics, although this share is falling. There is no experience in the FSU of a market-based economy with modern policy-making institutions. The economy was heavily distorted by state planning, for almost 50 years in the Baltic States, 70 years elsewhere. The starting point for the transition to a market economy is therefore more difficult than for most of the East European countries. Against this background, the difficulties that there have been in formulating and implementing new monetary arrangements are understandable.

3 The success or otherwise of the FSU republics in establishing viable new currencies will be a key influence on their reform programmes. Few dissent from the view that macroeconomic stability is a necessary requirement for success, even if there is less unanimity on the question of whether it is possible to design an optimal sequence for the microeconomic elements in structural reform, see for example Bruno (1992), Fischer (1993a), Genberg (1991) and Portes (1991). There are a number of elements in the successful management of a new currency. The performance of the central bank, fiscal policies, exchange rate policies, the introduction of hard budget constraints on enterprises and the reform of commercial banking are all important ingredients. However in the earliest stages with a new currency the main priority for most republics is to manage the break with Russian monetary policies successfully, and bring inflation sharply down from levels typically of 20%-30% a month at the end of 1993. The main focus of this paper is therefore on monetary and exchange rate policies. Part one looks at the reasons for the demise of the rouble zone. In the second part we examine the main economic policy consequences of separate currencies, comparing these with a currency union. Part three discusses exchange rate regimes and monetary policies. Part four presents the case studies and part five concludes.

4 In writing about the FSU now there are two particular difficulties. First, the situation has been changing very rapidly, as already indicated, so there is a danger of being overtaken by events. In defence of a paper at this juncture (early 1994), one can say that separate currencies are now a fact of life for most republics, and there is sufficient length and diversity of experience to make instructive comparisons. There is still uncertainty surrounding the pace of reform in Russia following the formation of a new government after the parliamentary elections. However, resolute macroeconomic stabilisation seems less likely, at least for 1994. Second, for most republics, data are unreliable and sparse, and available only with a lag at a time when economies are moving rapidly. Data series start only in 1991 or 1992 in many cases. Published data have been used, mainly from IMF sources. Since the general quality of the data is poor, the numbers should only be taken as broad indicators of magnitude and trends.

I The Demise of the Rouble Zone

Up to the end of 1991

5 The dissolution of the Soviet Union in December 1991 was the culmination of two years of democratisation and increasing tension between the republics, including Russia, and the Union government headed by President Gorbachev. Through 1991, individual republics, notably Russia, withheld tax revenues from the Union and started enacting their own tax legislation, disregarding previous agreements. In Russia, expenditure also greatly exceeded budgetary targets, IMF (1992). Attempts to negotiate a Union Treaty in the spring and summer of 1991 to implement a Union-wide plan for economic reform were unsuccessful. The failed coup of August 1991 precipitated the end of the Union, see box A.

6 In contrast to the planned macroeconomic stabilisation, 1991 saw a loss of fiscal control, with the consolidated FSU government deficit rising to 26% of GDP, 31% for Russia, World Bank (1992) page 7. Underlying this was

Box A The FSU: Calendar of Events

1944: Soviet re-occupation of Baltics; integration into Soviet economy completed by 1950s.

March 1985: Mikhail Gorbachev becomes Communist Party leader.

March 1990: First democratic competitive elections at local and republican levels.

October 1990: Gorbachev's "Presidential Guidelines" envisage considerable freedom for the Union republics in economic policy making.

May 1991: "Allison-Yavlinsky" plan makes last serious attempt to propose a Union-wide reform programme, albeit based on the explicit consent of the republican authorities.

August 1991: Hardline coup attempt, in part aimed at preserving the Union.

December 1991: The Soviet Union ceases to exist.

January 1992: Russia liberalises 90% of prices.

April 1992: G7 agrees $24bn package of financial assistance for Russia.

June 1992: Estonia becomes first republic to leave the rouble zone.

July 1992: CBR instructs main branches to centralise FSU interstate payments through one Moscow office and places limits on amount of credit extended.

August 1992: IMF agrees $1bn first credit tranche drawing for Russia.

April 1993: G7 countries promise $43bn in financial assistance to Russia. Yeltsin, against the hardline opposition of Russian parliament, wins backing for himself and reform policies in referendum.

June 1993: IMF Board approves Russian application for $1.5bn drawing under special financing arrangement, Systemic Transformation Facility.

July 1993: Demonetisation - withdrawal of pre-1993 rouble notes.

September 1993: Yeltsin dismisses Russian parliament.

October 1993: Troops loyal to Yeltsin storm Russian parliament's "White House".

December 1993: New parliamentary elections in Russia.

January 1994: Key reformers Gaidar and Fedorov leave government.

the sharp fall in USSR output, related to the break up of the CMEA[1] trading system and the quickening disintegration of the central planning system, which disrupted supply. The deficits were monetised. With most prices controlled, this created a large monetary overhang and forced saving which greatly increased the inflationary impact of Russian price liberalisation in January 1992. However in 1991 itself, even with comprehensive price controls, retail prices of goods rose by 140%, or an average of 7.5% a month. World Bank (1992) estimate the increase in household forced savings with the banks at 12% of Russian GDP in 1991. This excess money held as bank deposits was in turn used to finance the government deficit.[2] Enterprise deposits with the banking system also grew rapidly, by the equivalent of 14% of GDP.

7 A major reason for the supply failures in 1991 was the disruption of trade flows. Measured in dollars, the USSR current account deficit with the rest of the world actually narrowed in 1991, to $7.3bn from $21.2bn in 1990, Christensen (1993). The abolition of the CMEA in early 1991 led to a substantial improvement in the terms of trade, offset by a collapse in the volume of both exports and imports. The decentralisation of trade and the breakdown of the CMEA payments system contributed to this.

8 Within the USSR, as Table 1 shows, inter-state trade typically accounted for the bulk of each republic's trade: in 1989-90 the average was 80%-85%. Over the period 1988 to 1991, increasing republican autonomy and the decline of central planning disrupted these flows. Some of the republics, particularly those pressing for early independence,restricted exports of food and consumer goods to Russia, whilst Russia introduced quantitative restrictions (QRs) on its exports to other FSU states. Intra-FSU trade volumes are estimated to

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(1) Council of Mutual Economics Assistance: ; atrading system between the FSU, Eastern Europe and other Communist countries based on administered and distorted prices.

(2) In the absence of price controls, the equivalent way by which the government can finance a deficit is seigniorage.

Table 1: Total and Intra-regional Foreign Trade as a Percentage of GNP Former Soviet States and Eastern Europe CMEA countries 1989 or 1990

	Foreign Trade	Intra-regional	
Former USSR(a)	Total(b)	Intra-regional(c)	Share of Total
Armenia	28.4	25.6	90.1
Azerbaijan	33.9	29.8	87.7
Belarus	47.3	41.0	86.8
Estonia	32.9	30.2	91.6
Georgia	28.9	24.8	85.9
Kazakhstan	23.5	20.8	88.7
Kyrgyaztan	32.3	27.7	85.7
Latvia	41.4	36.7	88.6
Lithuania	45.5	40.9	89.7
Moldova	33.0	28.9	87.7
Russian Federation	18.3	11.1	60.6
Tajikistan	35.9	31.0	86.5
Turkmenistan	35.6	33.0	92.5
Ukraine	29.0	23.8	82.1
Uzbekistan	28.5	25.5	89.4
Eastern Europe (CMEA)			
Bulgaria	30.1	16.1	53.4
Czechoslovakia	23.0	10.9	47.2
Hungary	34.1	13.7	40.3
Poland	19.6	8.4	43.1
Romania	17.6	3.7	21.0
EC Average	23.2	13.9	59.9

Note: Data for 1990 are used for the FSU and the EC, 1989 data for Eastern Europe.

(a) Statistical reporting by Goskomstat of the convertible currency trade of the former USSR is significantly biased downward by the use of a highly overvalued exchange rate. Thus, when the convertible currency trade is properly valued the total foreign trade dependence of the former Soviet states would increase, and the share of inter-regional trade would be lower than indicated in the table

(b) Trade is measured by the average of exports and imports as a percentage of GNP.

(c) Intra-regional trade refers to trade within the former USSR, the CMEA or the European Community (EC), respectively.

Source: World Bank (1992).

have contracted by 15% in 1991, Christensen (1993), slightly more than the fall in output but much less than the decline in trade volumes with the CMEA. At this stage the process of trade price liberalisation had scarcely begun. The price of Russia's exports of oil and materials to other republics remained controlled at only a fraction of world levels, although some of the republics had begun to raise prices on exports to Russia. This is consistent with the estimates of current accounts or trade balances in Table 2, with some republics showing an improvement between 1990 and 1991.

After the break-up of the USSR

9 Once the Union government had ceased to exist in December 1991, much of the pressure and tension that had been directed by the republics, including Russia, against the USSR government became focused on the relationship between Russia and the other republics. At the outset it was widely assumed that the republics would have complete control of most aspects of economic policy, including fiscal policy and that all-Union defence, foreign aid, and public administration would cease. This proved to be the case. In early 1992 there appears to have been little public discussion either in the international community or the media of the future of the rouble zone. Implicitly at least, it seems to have been assumed that currency arrangements would remain broadly unchanged, with the CBR continuing to act as the central bank for the whole of the FSU.

10 The decision by the Estonian government in March 1992 to prepare for currency reform, quickly followed by similar thinking in the other Baltic states, was an important catalyst in encouraging a debate of the issues.[1] In the first half of 1992 there were two other developments of significance for the rouble zone, the introduction of coupon currencies for cash transactions

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(1) At the 1992 IMF/World Bank spring meetings the managing director of the IMF, when asked at a press conference whether he foresaw many republics leaving the rouble zone, commented: 'We in the IMF will scrupulously respect their sovereign choice.... We have to show them the pros and cons of each possible solution.... If you want to substitute your own currency for the rouble, you have to make it better than the rouble from the outset'.

Table 2: FSU Republics: Current Account/Trade Account Balances

% of GDP	1990	1991	1992
Armenia	-7.9	-10.2	-37.0
Azerbaijan[(a)(b)]	4.6	0.4	-
Belarus [(c)]	-	6.4	1.3
Estonia	-	-	1.3
Georgia	-5.3	-	-
Kazakhstan	-3.6	-2.5	-9.9
Kyrgyzstan	-6.2	12.2	-8.9
Latvia	-	-	4.0
Lithuania	-	9.1	4.8
Moldova [(a)]	-2.2	-1.3	-10.0
Russia - trade balance	-0.2	1.6	6.3
- current account	-0.4	1.3	-4.3
Ukraine	-	-1.7	-2.8

(a) Trade balance 1990; current account balance 1991, 1992.

(b) 1991, 1992 valued in dollars, GDP converted to $ using average commercial rate.

(c) Trade balance.

Source: IMF Economic Surveys of FSU Republics and authors' estimates. Figures for Tajikistan, Turkmenistan and Uzbekistan are not available.

in a number of republics and the setting up of correspondent accounts at the CBR and republican central banks. Those republics, Belarus, Georgia and Moldova, which started to print rouble coupons did so in response to a shortage of rouble notes. The Ukraine also introduced coupons for cash transactions in late 1991 and by April 1992 they had largely replaced roubles. The coupons which circulated in parallel with roubles were inconvertible for hard currency and only locally valid as legal tender. There was generally an incentive to overexpand their supply, partly to capture the seigniorage locally. Their value tended to fall against the Russian rouble, and *de facto* exchange rates were thereby spontaneously established. As explained below, the July 1993 demonetisation in Russia, together with the tighter monetary policies being pursued by the reformers, greatly added to the pressure on republics still using the rouble or with parallel currencies to establish separate currencies, see Box B.

11 In early 1992, a system of correspondent accounts for non-cash transactions at the CBR and the central banks of the other FSU central banks was established.(1) These accounts were designed for both cross-border trade payments and interstate financial transfers, mainly for enterprises. Although credits granted this way were substantial, the system worked poorly. Imbalances between the republics rapidly emerged, and in July 1992 interstate payments were centralised through the CBR. Limits were imposed on the credit extended by the CBR, and when these 'technical credits' were exhausted, payments were suspended. Although the republics' central banks retained the right to create domestic non-cash roubles, these could only be used as payment elsewhere in the rouble zone if the republic concerned was

(1) Correspondent accounts are the accounts held by enterprises, government departments at banks through which non-cash rouble flows are channelled. Non-cash roubles are used in payment for producer goods. The funds held are included in the M2 definition of money, despite their low fungibility. More specifically, in January 1992, the CBR established a system of correspondent accounts for each of the central banks of the FSU in which payments imbalances between Russia and the republics were recorded. These replaced the inter-branch payments of the former USSR Gosbank. See IMF (1994) for further details of the payments mechanism.

Box B: Currency Arrangements in FSU States at end-December 1993

Republic	Currency	Current Status
Armenia	Dram replaced rouble Nov 1993.	
Azerbaijan	Rouble and manat for cash transactions.	Manat sole legal tender; roubles being phased out.
Belarus with	Rouble, and a coupon (the rouble); all pre-1993 roubles to be replaced by new roubles.	Parliament approved a full monetary and fiscal union Russia on 18th November, negotiations with Russia continuing.
Estonia	Kroon replaced the rouble in June 1992.	Currency Board. Current account convertibility, partial capital account convertibility.
Georgia	Coupon currency. Lari sole legal tender to be introduced soon.	
Kazakhstan	Tenge replaced old rouble in Nov 1993.	
Kyrgyzstan convertibility	Som introduced May 1993.	Floating exchange rate. Current account for residents, restrictions on capital account.
Latvia	Lat replaced Latvian rouble in June 1993, which had replaced rouble in July 1992.	Floating rate. Current account convertibility, partial capital account convertibility.
Lithuania	Litas replaced talonas in June 1993, which had replaced rouble in October 1992. Sole legal tender.	Floating rate. Current account convertibility, partial capital account convertibility.
Moldova	Old Rouble; parallel coupons have circulated since mid-1992; introduction of own currency (the leu) at end November 1993.	
Russia	Rouble.	Floating with broadly unified current account convertibility for residents; restrictions on capital account transactions.
Tajikistan	Old Rouble.	Signed new rouble zone agreement. Negotiations with Russia continuing.
Turkmenistan	The manat introduced Nov 1993	
Ukraine suspended	Coupons introduced as parallel currency (cash transactions only) in Jan 1992, with the Karbavonets replacing the rouble in Nov 1992; hryvnia to replace Karbovanets in 1994.	Floating. Foreign exchange auctions November 1993.
Uzbekistan	Sum coupon introduced Nov 1993, in parallel with old roubles, which will be phased out.	Uzbek sum to be introduced in 1994 as sole legal tender.

below its credit limit. In effect those republics constrained by their credit limit had inconvertible non-cash roubles. Thus while the CBR could use non-cash roubles freely elsewhere in the non-Baltic FSU, credit constrained republics could not, so values diverged.(1) In early 1993, with many republics up against their credit limits, the Russian government announced that further financing would be in the form of direct government to government loans. In June 1993 the correspondent account system was formally ended, and the CBR began to quote exchange rates for non-cash roubles. However the rouble common currency zone was effectively ended well before then as both convertible and inconvertible non-cash roubles coupons, roubles and dollars circulated in parallel in a number of republics.(2)

12 The ostensible reasons for departure from the rouble zone differed between republics. Political factors and the desire for complete independence from Russia weighed strongly with the Baltic States. In contrast, Kazakhstan and Uzbekistan appear to have been reluctant to abandon the proposed new rouble zone. Only when they learnt of the terms that Russia was seeking for the delivery of new cash roubles did they decide to withdraw. (Section IV examines the background for some republics in more detail.) However, some common factors may be discerned. Fiscal autonomy alongside the absence of domestic capital markets and currency non-convertibility encouraged monetary disintegration. And differing views about the pace of economic reform, eg price liberalisation, led individual republics to attempt to limit arbitrage trade and close resource gaps by suppressing exports. More generally, the deterioration in economic conditions in the FSU as a whole, particularly for money, credit and payments, greatly undermined the viability of the common currency. These factors are now considered in more detail,

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(1) Between January and December 1992 prices of producer goods, which were paid in non-cash roubles, rose 24 fold in Kazakhstan but only 13 fold in Russia; consumer prices rose by similar magnitudes in the two republics.

(2) In August 1993 six separate currencies were circulating in Belarus: non-cash Belarus roubles not convertible to Russian roubles, non-cash Belarus roubles, pre-1993 Russian cash roubles, Belarus cash coupons, dollars and post-July 1993 Russian cash roubles. All except the last were circulating one month earlier.

with the main emphasis on Russia.

Credit and monetary conditions

13 In a common currency zone, it is axiomatic that monetary conditions are determined by the monetary authority in the money issuing country. However, through 1992 and into 1993, individual republics' central banks gained some influence over local credit conditions, and, as coupon roubles were issued, the local supply of cash. They also acted independently on such matters as reserve requirements and interest rates. The failure to establish some mechanism for monetary coordination contributed to inflation, Hernández-Catá (1993). Nevertheless, the CBR remained a key monetary influence throughout the FSU, directly through the credits provided by the correspondent accounts and indirectly through Russian inflation.

14 Total domestic credit in the Russian Federation, including that issued by commercial banks, grew nine-fold between end-1991 and end-1992, reaching a peak of 38% compound monthly growth in the third quarter, IMF (1993e). CBR credit grew even faster, see Table 3. Two key factors behind the rapid growth in total bank credit in 1992 were lending to the enterprise sector and to the government. Net lending to general government by the CBR and other banks to finance the deficit amounted to 1.2 trn roubles, 8% of GDP, with about half of this occurring in the final quarter.(1) Total credit to the enterprise sector increased by 6.2 trn roubles in 1992, about eightfold, of which over 80% was rouble credit and the rest foreign currency denominated. This was the result of declining sales and more realistic pricing of inputs in the absence of hard budget constraints, which led to large losses. The CBR was involved in the process of lending to state enterprises, mostly indirectly. It extended credits to commercial banks, amounting to 2.8 trn roubles in 1992. In turn the commercial banks credited enterprise accounts, often at below interbank loan rates and under the direction of the CBR. A proportion of these funds were subsequently deposited with the

(1) This covered less than one third of the total general government deficit. The remainder was largely financed from overseas by tied credits for the subsidisation of imports: asset sales also made a small contribution.

banking system, providing the base for a credit multiplier. The commercial banks also have a legal requirement to keep reserves in correspondent accounts at the CBR.

15 In the first half of 1993 the growth of net lending to the government slowed, the stock increased by only about 50%. However, the stock of CBR lending to commercial banks almost doubled over the same period, and there were indications that total credit growth reaccelerated in the late summer.

Money

16 The growth in credit to government and banks led to a rapid expansion in the money base, mainly currency in Russia, which increased over 10 times through 1992, and continued to increase at a monthly rate of about 20% in the first half of 1993. As Table 3 shows, the growth in currency was relatively subdued in the early months of 1992 at the time of price liberalisation, before accelerating sharply in the second and third quarters in response to the upsurge in credit.

17 There appears to be a relationship, by no means stable, between broad money (M2) growth and consumer price inflation four months later, as Chart 1 shows. Table 3 indicates that the peak in M2 growth was in the third quarter of 1992, following the expansion of credit in the second quarter; that M2 velocity reached a trough at this point but rose steadily thereafter, Chart 2. The money multiplier fell sharply in the second quarter of 1992, reflecting a decline in rouble bank deposits and increasing dollarisation.

18 The price liberalisation in January 1992 eliminated the monetary overhang. Consumer prices rose 2.5 times in January. Real money (cash) balances fell by 75%. Real cash balances remained broadly constant through the rest of the year. Real interest rates were strongly negative while the rouble exchange rate fell from 200R/$ in January 1992 to 489R/$ in January 1993. After the initial hike in January, consumer prices increased about seven times through the remainder of 1992.

Table 3: Russia: Money, Credit and Fiscal Indicators

	1991	.....1992.....				.....1993.....			
	Dec	Mar	June	Sept	Dec	Mar	June	Sept	Dec
Trillions of roubles									
Domestic Credit[a]	0.2	0.5	1.4	3.9	6.9	10.5	14.2	20.2	-
	-	*35.7*	*41.0*	*41.7*	*21.3*	*15.2*	*10.5*	*12.4*	-
Money (M2)	1.0	1.3	2.1	4.5	7.2	10.9	16.2	26.1	36.7
	-	*11.8*	*15.6*	*29.3*	*17.2*	*15.0*	*14.1*	*17.2*	*12.1*
M2 Velocity[b]	-	5.0	5.6	3.8	4.3	7.4	6.9	8.2	-
Monetary base	-	0.5	1.2	2.5	4.4	6.4	9.3	-	-
	-	-	*33.5*	*28.9*	*20.9*	*13.4*	*13.6*	-	-
Money Multiplier[c]	-	-	1.8	1.8	1.7	1.7	1.7	-	-
Foreign Exchange Deposits	0.3	0.9	2.5	5.2	8.6	-	-	-	-
	-	*39.0*	*44.0*	*27.0*	*39.0*	-	-	-	-
Enlarged Fiscal Deficit % of GDP (cash basis)	-	25.3	-20.4	-21.8	-21.5	-	-	-	-
Interbank lending rate (monthly rate)	-	3.0	5.5	8.1	9.0	10.6	11.7	15.2	-
Memorandum Items									
Consumer Price Inflation[d]	-	*84.0*	*18.0*	*11.0*	*25.0*	*24.0*	*21.0*	*24.0*	*16.0*
roubles/dollar	170	160	135	254	415	684	1,060	1,169	1,247
Money GDP (tr R)	-	1.4	2.3	3.8	6.5	16.3	25.5	45.7	-

(a) CBR credit only.

(b) End quarter annualised money GDP/M2.

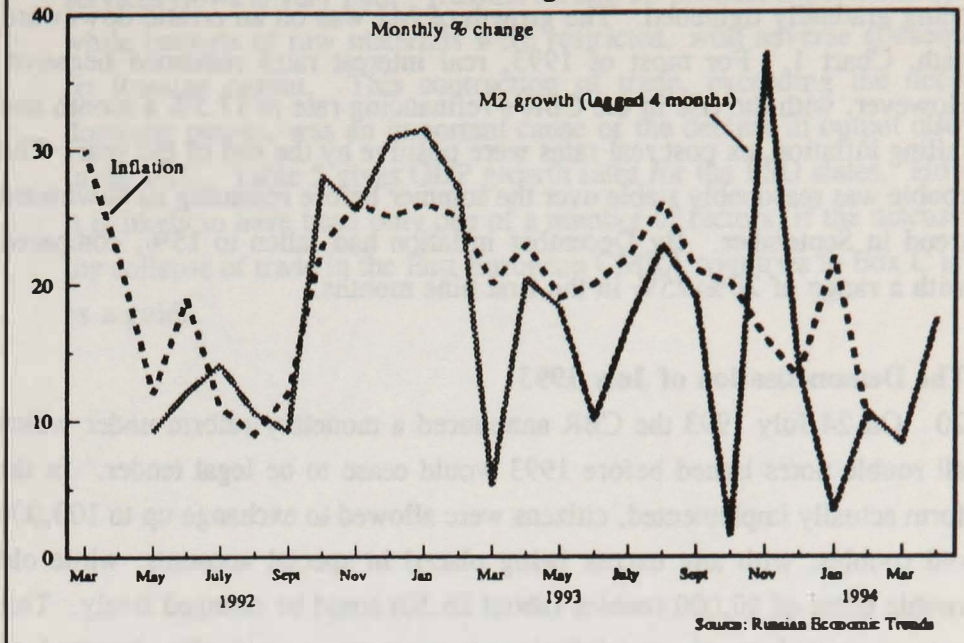
(c) M2/Monetary base.

(d) Average monthly rate within quarter.

All figures are end period except fiscal deficit which is period average.
Figures in italics are average monthly percent change in the quarter.

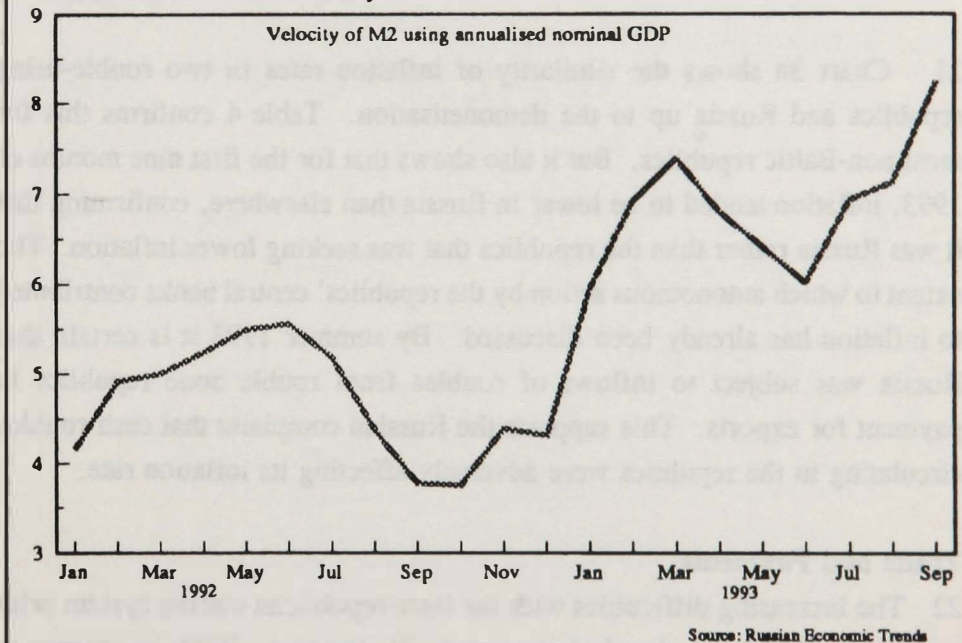
Sources: *Russian Economic Trends*, except foreign exchange deposits and fiscal deficit, IMF (1993e).

Chart 1: Russian inflation and Rouble M2 growth



Source: Russian Economic Trends

Chart 2: Rouble M2 Velocity



Source: Russian Economic Trends

19 For much of 1993 there is some evidence that monetary conditions were being gradually tightened. The growth of M2 was on an erratic downward path, Chart 1. For most of 1993, real interest rates remained negative. However, with the rise in the CBR's refinancing rate to 17.5% a month and falling inflation, ex post real rates were positive by the end of the year. The rouble was reasonably stable over the summer before resuming its downward trend in September. By December inflation had fallen to 13%, compared with a range of 20%-25% in the first nine months.

The Demonetisation of July 1993

20 On 24 July 1993 the CBR announced a monetary reform under which all rouble notes issued before 1993 would cease to be legal tender. In the form actually implemented, citizens were allowed to exchange up to 100,000 old roubles, with any excess being placed in special accounts, while old rouble notes of 10,000 roubles (about £6.50) could be changed freely. This was presented as an anti-inflationary measure, specifically designed to insulate Russia from the purchasing power represented by old roubles held in the republics.

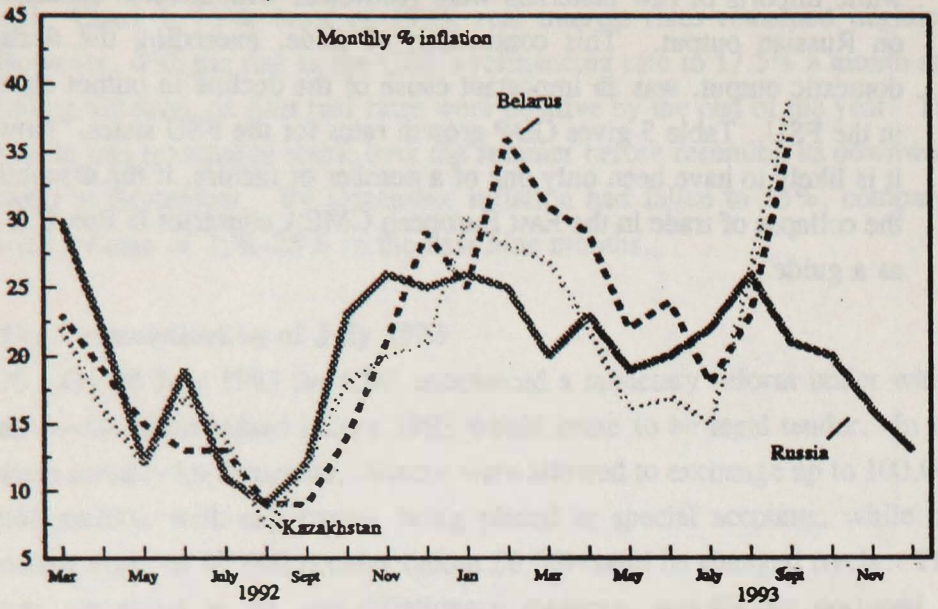
21 Chart 3a shows the similarity of inflation rates in two rouble-using republics and Russia up to the demonetisation. Table 4 confirms this for most non-Baltic republics. But it also shows that for the first nine months of 1993, inflation tended to be lower in Russia than elsewhere, confirming that it was Russia rather than the republics that was seeking lower inflation. The extent to which autonomous action by the republics' central banks contributed to inflation has already been discussed. By summer 1993 it is certain that Russia was subject to inflows of roubles from rouble zone republics in payment for exports. This supports the Russian complaint that cash roubles circulating in the republics were adversely affecting its inflation rate.

Trade and Payments

22 The increasing difficulties with the inter-republican trading system prior to January 1992 have already been noted. However, in 1992, in contrast to preceding years, the brunt of the collapse in trade was within the FSU. Russia's trade with the FSU area is estimated to have contracted by nearly

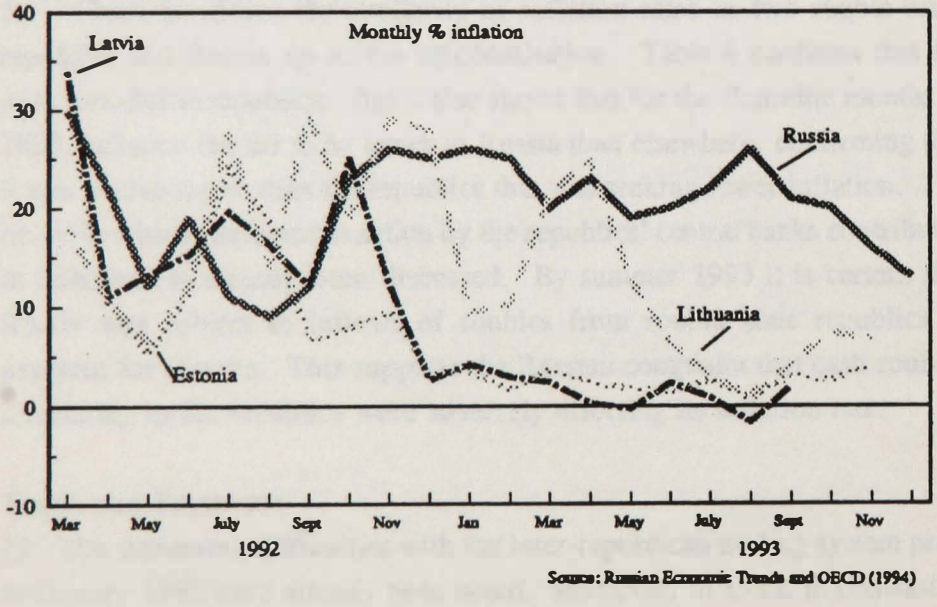
30% in 1992, although the quality of data on inter-republican trade and services flows is very poor. Russian oil and oil product exports fell by 35%, while imports of raw materials were restricted, with adverse consequences on Russian output. This contraction of trade, exceeding the decline in domestic output, was an important cause of the decline in output elsewhere in the FSU. Table 5 gives GDP growth rates for the FSU states. However, it is likely to have been only one of a number of factors, if the discussion of the collapse of trade in the East European CMEA countries in Box C is taken as a guide.

Chart 3a: Kazakhstan, Belarus and Russia



Source: Russian Economic Trends and OECD (1994)

Chart 3b: Baltics and Russia



Source: Russian Economic Trends and OECD (1994)

Table 4: FSU Republics: Consumer Price Inflation, Monthly Averages[a]

	1992				1993			
	Mar	June	Sept	Dec	Mar	June	Sept	Dec
Armenia	75	20	2	30	31	12	8	-
Azerbaijan	47	5	16	40	18	11	13	-
Belarus	77	16	10	21	31	25	25	-
Estonia	62	9	16	7	3	2	2	3[b]
Georgia	-	-	-	-	-	-	-	-
Kazakhstan	53	15	11	20	28	18	26	-
Kyrgyzstan	49	14	20	30	33	20	25	-
Latvia	48	13	16	13	3	1	0	-
Lithuania	38	10	24	25	14	14	3	-
Moldova	63	11	6	25	30	19	4	-
Russia	84	18	11	25	24	20	22	16
Tajikistan	48	10	13	11	35	37	37	-
Turkmenistan	52	5	10	10	47	32	18	-
Ukraine	63	13	16	23	42	29	38	71[c]
Uzbekistan	56	11	5	19	17	18	15	-

(a) Average monthly inflation rate within the quarter.

(b) Average of October and November.

(c) October.

Source: OECD (1994).

Box C: The collapse of the CMEA Trading System

The fall in GDP in the previously centrally-planned economies (Poland, Czechoslovakia, Hungary etc) shown in the table below has many causes, including the shock to domestic demand from restrictive stabilisation programmes coupled with price liberalisation, the break-up of the CMEA trading system and the introduction of currency convertibility. Substantial reductions in trade volumes were experienced as FSU imports fell, a market-loss effect. The transition to world market prices entailed a large adverse terms of trade shock, as world prices were introduced, and the implicit import subsidies/export taxes, which bilateral balancing with the FSU involved, were removed.

Rodrik (1992) claims that the loss of Soviet markets and the related break-up of the CMEA system was by far the single most important factor behind the falls in output. Others have disputed this. For example, Borensztein (1993) points out that the resource reallocation required in moving away from central planning and a general lack of competitiveness implied large falls in output. As evidence he notes that in the case of Poland the largest fall in GDP occurred in 1990, before the full effects of the CMEA break-up were felt. In similar vein, Bofinger (1993a) cites the fact that the falls in output in Poland, Hungary and the CSFR were about the same after 1990 (the table suggests this is only broadly true) as evidence that supply and not demand shocks were the main mechanism. This is because the macro-economic policies and demand shocks varied, but all countries had gross overmanning and supply inefficiencies, which are diminishing as a result of price liberalisation and structural reform.

(Annual percent change)

	1989	1990	1991	1992
Bulgaria	-0.5	-9.1	-11.7	-5.6
Former Czechoslovakia	4.5	-0.4	-15.9	-8.5
Hungary	-0.2	-4.3	-11.9	-4.4
Poland	0.2	-11.6	-7.6	1.0
Romania	-5.8	-7.4	-15.1	-15.4

Source: IMF *World Economic Outlook* October 1993

Table 5: Countries in Transition: Real GDP[a]
(Annual percent change)

	1989	1990	1991	1992
Central Europe [b]	**0.2**	**-7.1**	**-12.6**	**-9.1**
Former USSR[c]	**3.0**	**-2.3**	**-11.8**	**-17.8**
Armenia	...	-8.5	-11.8	-40.0
Azerbaijan	...	-11.7	-0.7	-26.3
Belarus	...	-3.0	-1.9	-10.0
Estonia	...	-3.6	-11.9	-23.3
Georgia	...	-12.4	-20.6	-45.6
Kazakhstan	...	-0.4	-13.0	-14.0
Kyrgyzstan	...	4.0	-5.0	-26.0
Latvia	...	-0.2	-8.3	-32.9
Lithuania	...	-5.0	-13.4	-35.0
Moldova	...	-1.5	-18.0	-21.3
Russia	...	-2.0	-12.9	-18.5
Tajikistan	...	-	-	-
Turkmenistan	...	1.8	-4.7	-5.3
Ukraine	...	-3.4	-13.4	-14.0
Uzbekistan	...	4.3	-0.9	-9.5

(a) Figures for recent years are IMF estimates. The figures should be interpreted only as indicative of broad orders of magnitude because reliable, comparable data are not generally available. In particular, the growth of output of new private enterprises or of the informal economy is not fully reflected in the recent figures.

(b) Weighted average of Albania, Bulgaria, Former Czechoslovakia, Hungary, Poland, Romania and Former Yugoslavia.

(c) Figures for 1990 onward are weighted averages of the separate estimates for the 15 states of the Former USSR.

Source: IMF *World Economic Outlook*, May and October

23 The Russian government decided in early 1992 to begin raising trade prices to FSU states towards world levels, and by the end of the year energy prices were rising rapidly.(1) However, because a large gap between world and inter-republican trade prices remained, quantitative restrictions were maintained on about three quarters of all Russian exports. In addition there was a uniform tariff, also covering about three quarters of all exports, with a surcharge for barter transactions. In January 1993 a centralised system of exports was re-introduced for about a quarter of total exports. These widespread restrictions on exports can be seen as an attempt by Russia to alleviate domestic supply shortages, and, in the case of intra-FSU trade, limit the extent to which other states could make arbitrage gains by re-exporting at higher prices. Russia introduced a unified and floating exchange rate in August 1992 and current account convertibility in November 1992. Although these measures did not directly affect trade within the rouble area, they helped to correct the bias towards intra-FSU trade.

24 As already discussed, to the extent that the collapse of intra-FSU trade in 1992 led to deteriorating current account positions, and especially where terms of trade losses were experienced, the emerging financing gaps were met by credits provided by the CBR via correspondent accounts.(2) As Table 6 shows, these financial transfers made through the payments system are estimated to have been about 1.5 trn roubles, equivalent to 8 ½% of Russian GDP, IMF (1994). In addition, enterprises in Russia financed those elsewhere in the FSU, building up net arrears. This was offset only to a small extent by net borrowing by Russian commercial banks from commercial banks in other FSU states. For the recipient states the total of credit extended probably averaged about 20% of GDP.

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(1) Prices of oil within Russia rose from about 2% of world levels in early 1992 to 25% in the second half of the year, Christensen (1993). Prices of other raw materials were much closer to world levels, although substantial increases again occurred.

(2) The Baltic states were excluded from this process.

Table 6: Financing and other flows between Russia and other FSU republics

Trillion roubles	1992	1993 (Jan-Sept)
CBR correspondent account and technical credits	1.5 (8 1/2)	1.0 (1)
Enterprise arrears	0.2 (1)	- -
Commercial bank borrowing[a]	-0.0 (-1/4)	-0.7 (-3/4)
Total	1.7 (9 1/4)	0.5 (½)
Memorandum Items:		
Currency Issue	0.6 (3)	1.9[b] (2)
Trade price subsidy effect[c]	2.4 (13 1/4)	- -

(a) Negative sign indicates borrowing by Russian commercial banks from those in other republics.

(b) Includes deliveries of old roubles by CBR in August-September, when old roubles no longer legal tender in Russia.

(c) Subsidy implicit in inter-republican trade prices below world levels, measured at average 1992 exchange rate.

Figures in brackets are as % of Russian nominal GDP.

Source: IMF (1994)

25 The July 1992 centralisation of cross-border payments led to the system becoming increasingly slow and cumbersome, reinforcing the other adverse influences on trade. Partly in response to these payments problems, there has been a rapid growth in barter trade. Other responses have been more market-oriented. As new convertible currencies with foreign exchange markets have been established, decentralised payments systems are beginning to develop. Payments can be made either through commercial banks' correspondent accounts or directly via the foreign exchange market. In either case the system is likely to function better than centralised payments.

Budgetary and Fiscal Issues

26 The granting of fiscal autonomy in 1992 led to an explosive increase in fiscal deficits in a few important republics, as Table 7 shows. In these cases the cost of financing local conflicts (Georgia) or the desire not to embark on market reforms (Ukraine) were important factors. It is probably no coincidence that these two republics, together with Moldova, were also three of the four non-Baltic republics to introduce parallel currencies in 1992. To the extent that most republics saw a modest widening in fiscal deficits in 1992, some common factors appear to have operated. Declining output was the chief of these. And the growth of payments arrears on exports to Russia reduced the ability of local enterprises to pay state taxes and encouraged the growth of local credits partly financed by state governments. For most republics the growth of barter trade also reduced the tax base.

27 A further budget implication arising out of the high inflation endemic in the non-Baltic FSU states is the inflation tax and seigniorage.(1) A complication under the rouble zone arose out of the fact that the rouble issuing authority was the CBR if roubles, rather than locally issued rouble coupons, were used. Whether Russia or the republic obtained the seigniorage

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(1) Seigniorage comprises government revenue from the note issue. It is conventionally defined as the change in high-powered money, usually expressed as percentage of GDP. This is closely related to the inflation tax, the opportunity cost revenue received by the government from issuing money rather than interest bearing debt, or, equivalently, the inflation tax rate times the level of real high powered money balances, see Black (1992).

Table 7: FSU Republics: General Government Budget Balances

(As percent of GDP)	1991	1992	1993[a]
Armenia	-1.9	-34.8	-47.1
Azerbaijan	2.6	-3.8	-7.0
Belarus	3.6	-3.2	-7.0
Estonia	4.6	1.6	-0.6
Georgia	-3.5	-35.1	-
Kazakhstan(b)	-7.9	-5.6	-6.0
Kyrgyzstan(b)	4.5	-14.9	-4.7
Latvia	6.3	-0.9	-1.5
Lithuania	2.8	2.2	-0.5
Moldova(b)	-	-22.0	-11.0
Russian Federation(c)	-16.0	-20.0	-10.0
Tajikistan	-	-	-
Turkmenistan(b)	3.5	12.3	4.5
Ukraine(b)	-15.0	-32.1	-17.5
Uzbekistan(b)	-4.8	-12.8	-5.2

(a) IMF projections.
(b) Excludes extrabudgetary funds, in some cases known to be in deficit.
(c) Includes unbudgeted import subsidies.

Source: IMF *World Economic Outlook*, October 1993

revenue from the CBR delivery of notes and coins to the republics depended entirely on the terms under which the issue was made. If the roubles were received in return for interest-bearing liabilities, the seigniorage accrued to the CBR; if free of charge then the republican government in effect received the seigniorage from the local private sector. Since mid-1992 it appears that the CBR has recorded rouble deliveries in the republics' correspondent accounts. If they have been included in the interstate debt agreements then the bulk of the seigniorage will eventually accrue to Russia. These changes, and the shortages of cash roubles, implied that Russia was taking an increasing share of the seigniorage revenues, providing an incentive for each of the republican central banks to institute and increase its emission of rouble coupons; see Goldberg *et al* (1993) for a discussion. In the new rouble zone negotiations, the Russian proposal that new roubles would only be supplied to republics in return for gold or other hard-currency reserves can be seen as a bid to ensure that all the seigniorage accrued to Russia.

28 The usual way of estimating seigniorage revenue is to take the change in base money over a particular period and divide by nominal GDP. Using the figures for base money given in Table 3 gives seigniorage for the year to December 1992 of over one third of GDP.(1) This figure is biased upward to the extent that some of the rouble emission took place in the republics. If allowance is made for this, for example by assuming that the republics accounted for about one third of the total monetary base, in line with their GDP share, then the figure falls to about 17%. This is a remarkably high figure, much higher than the corresponding figures of up to 5%-6% of GDP quoted for Latin American countries experiencing high inflation rates, Fischer (1982). On the basis of these figures, seigniorage is also equivalent to over one half of total tax revenue. The underlying reason for Russia's ability to maintain seigniorage at such high levels is the strength of demand for base money. Since this is inversely related to real interest rates and expected inflation, it seems likely that this source of government revenue will diminish as households and others increasingly recognise the costs involved.

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(1) This figure was obtained by taking the change in the monetary base in each quarter and dividing by average money GDP for the quarter.

Extensive dollarisation and the rising velocity of the monetary base suggest that this may now be happening.(1)

29 The range of fiscal deficits across republics is wide, as Table 7 shows. Those state governments running the largest government deficits, assuming little or no private sector saving, are also likely to be those with the largest current account deficits. Since the effect on the overall rouble zone inflation rate of large deficits in the smaller states is individually likely to be insignificant while the local effects on inflation may be dissipated by the high degree of openness, the usual constraints on fiscal profligacy are weak.

Overview

30 The policies pursued by Russia and the CBR and the other state governments of the FSU have all but obliterated the potential advantages of a common currency in the FSU. The underlying problem has been political differences about the pace and composition of economic reform. And without broad agreement on economic fundamentals, a common currency is unlikely to survive. The Baltic states realised early on that reform in the rest of the FSU was likely to be insufficiently rapid for their purposes. Some other republics seem to have wanted slower reform than in Russia, hence the huge fiscal deficits and coupon roubles. And once the reformers had gained the upper hand in Russia in 1993, other republics' policies were seen as a source of monetary instability. The removal of the CBR's control over trade payments in early 1993 was an early response to this. The July monetisation can be seen as more drastic action to prevent these spillovers.

31 Writing on the evidence of the break-up of the Austro-Hungarian Empire in the 1920s, Dornbusch (1992) says that 'it is a quite awful idea to maintain a currency union based on an unstable centre currency..... A clean break is far better, and the sooner it is done the better'. The experience of the Baltic States fully bears this out, as discussed below. But the analogy is not

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(1) Accurate figures for dollarisation do not exist, but some estimates put it as accounting for between one third and one half of total cash transaction. Under dollarisation the seigniorage accrues to the US government.

exact. In contrast to the Austro-Hungarian case where peripheral states were trying to escape from a hyperinflating centre, some of the FSU states were arguably trying to avoid the tighter monetary policies being introduced in Russia. Interestingly, the evidence of the Austro-Hungarian Empire shows that establishing separate currencies does not, itself, ensure monetary stability: of the three main countries, only Czechoslovakia managed to avoid hyperinflation. Austria and Hungary both had severe monetary instability in 1921 and 1923 respectively, despite having established separate currencies, *de facto*, in 1920.

II Economic Policies with Separate Currencies

32 For the republics of the CIS the single most important, and difficult, economic problem is to bring inflation down to low levels on a sustained basis. The experience of some countries in Latin America and East Asia, which have experienced high rates in the past but now take action to keep inflation low, shows that success is possible, see Fischer (1993b).[1] While most of the emphasis in discussions of inflation stabilization is rightly on money, credit and exchange rate issues, the need to control fiscal deficits is a prerequisite where financial markets are rudimentary and the credibility of governments low.

Budget Deficits

33 The wide range of general government deficits across the FSU republics has already been noted, Table 7. However these figures are not directly comparable with those for a Western market economy. For example, social expenditures, which in the FSU are counted as costs to enterprises, would in a market economy appear as government expenditure. Of course, whether placing such expenditures on the budget would lead to a matching increase in the deficit and reduction in enterprise losses would depend on any associated tax changes. Similarly, the provision of credits to enterprises by the central bank may represent a flow which would usually be included as

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(1) Indonesia had inflation of over 100% in a number of years in the 1960s, as did Korea in the 1950s.

government expenditure. Thus there is considerable scope in transition economies for manipulation of budget deficit figures, for example by redrawing the boundaries between government and enterprises, or levels of government, or government and the central bank, Tanzi (1993). Some redrawing may be desirable if it helps to improve transparency. A distinction, difficult to make in practice, is therefore needed between changes in deficits which result from this, and those which reflect a deterioration of the underlying fiscal position. In any case, with a measured budget deficit in Russia estimated at 20% of GDP in 1992 and significantly higher in three other republics including the Ukraine, it is clear that gaining control of the budget remains a priority for some republics. This already appears to be taking place in Russia, where a budget deficit for 1993 is estimated at about 10% of GDP, helped by expenditure deferrals. Elsewhere, with budget deficits typically less than 10% of GDP, the extent to which monetary polices are being undermined is less clear. But the absence of credibility and a market for government debt are reasons for expecting there to be a problem, even at lower levels. The evidence from the Baltic states, which alone have succeeded in establishing low inflation, and also have budgets which are in broad balance, is another.

Supply and Demand Shocks

34 The FSU republics, undergoing profound changes to the pattern of output and relative prices as they disengage from planned economies closely linked to Russia's, face asymmetric shocks to supply and demand. Relative prices of commodities such as oil and cotton, produced in some republics but not others, are rising rapidly as they are brought into line with world levels. And demand and production patterns are in a state of flux as trade with market economies is opened up and the old military-industrial complex wanes. Production was highly specialised and concentrated under state planning. For example, Belarus, with 3% of the population of the FSU, produced about 30% of all synthetic fibres and 15% of adult bicycles in 1989. In these circumstances, adjustment to a market system will benefit from real and nominal exchange rate flexibility. This is particularly so as the large transfers from Russia to the republics that were a feature of the Soviet

system are phased out. This implies that a higher real exchange rate for Russia in relation to the other republics would generally be appropriate.

35 Similar arguments apply when republics facing a common shock to the terms of trade have different views about the politically acceptable speed of adjustment of real wages, Bomhoff (1992). In principle one way of obtaining a slower decline in real wages would be to limit any fall in the nominal exchange rate. But while a fixed or crawling peg exchange rate may help in doing this in the short run, it is much more doubtful whether real wages can be influenced this way over the medium term.

36 There is a close relationship between changes in the real exchange rate and the relative price of tradable and non-tradable goods and services in aggregate, see De Gregorio *et al* (1993). But where competition is weak, production unresponsiveness to market signals and relative prices distorted by years of central planning, aggregate signals are unlikely to be sufficient. Currency convertibility, which facilitates the introduction of world market prices, therefore has an important role in structural reform.(1) Of course, in the early stages of transition the effects of convertibility may be limited, even damaging, where hard budget constraints do not hold and supply responses are weak.

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(1) A definition of current account convertibility is provided by Greene and Isard (1991), based on IMF Articles VIII. Under this countries may not, without IMF approval, impose restrictions on the making of payments and transfers for current international transaction (which can include certain transactions of a capital nature - eg amortisation of loans or depreciation of direct investments). Nor may members engage in discriminating or multiple currency arrangements not authorised by the Fund. But while these articles prohibit restrictions on the availability and use of foreign exchange they do not prevent restrictions on merchandise trade, or exclude surrender requirements that compel residents to turn over accruals of foreign exchange to the monetary authorities. Internal convertibility means that residents are free to maintain domestic holdings of certain assets, eg, bank accounts, denominated in foreign currencies. However this falls well short of capital account convertibility since it does not permit the holding of assets located overseas, or of financial assets which represent claims against non-residents. Capital account convertibility allows for the free movement of direct investment and portfolio flows, in addition to interest, profits and dividends under current account convertibility.

37 There are differing views about both the timing and speed of the introduction of convertibility and the form it should take, see Polak (1992) and Nuti (1992) for example. Premature introduction, before rudimentary macroeconomic stabilisation has taken place, might precipitate an uncontrollable slide in the exchange rate. There are also questions about the speed with which world relative prices are allowed to feed through once current account convertibility is introduced. An over-rapid change in relative prices can overwhelm domestic producers and inhibit appropriate supply responses, especially where investment is required. For this reason there may be a case for a gradual convergence to world prices, perhaps achieved by phased reductions in any non-uniform tariffs, producer subsidies and taxes.

38 In practice the route of allowing market clearing domestic prices to be established with only limited current account convertibility whilst maintaining controls on trade has not been pursued in the FSU. East European countries showed that convertibility could be successfully introduced at an early stage in reform programmes. Poland and Czechoslovakia for example, moved quickly to current account convertibility, introducing it at the same time as price liberalisation.(1) Poland fixed its nominal exchange rate at a low level while Czechoslovakia devalued so as to gain a measure of protection, help build foreign exchange reserves and minimise risks of suspension. While the large devaluations provided some cushion, the output and income costs associated with a competitive price system have been high, as Box C showed. In the case of Poland the exchange rate peg was not sustainable, the zloty moved to a crawling peg 16 months after it was first fixed in January 1990. All the FSU republics have introduced some form of current account convertibility at the same time as new currencies. In these circumstances the type of payments union suggested by Kenen (1991) and others as a successor to the CMEA system would be a retrograde step. It is debatable whether there should also be an early extension to capital account convertibility. Although it might encourage foreign direct investment, in practice transition

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(1) The removal of restrictions on current account transactions has often been incomplete. For instance, there are still some restrictions on invisibles transactions.

economies usually avoid doing this, on the plausible grounds that it would exacerbate capital flight, both by domestic savers and inward investors, which is already extensive in Russia. [See Borensztein and Masson (1993) in support of the view that capital account convertibility is less important.]

III New Currencies and the Choice of Exchange Rate Regime in the FSU

39 This section looks at setting up a new currency and the choice of exchange rate regime. We consider how independent monetary policies and the choice of exchange rate regime can help bring about macroeconomic stability. Failure in this area can easily lead to inflation higher even than in Russia, setting back the whole reform process.

Introducing a New Currency

Transitional arrangements

40 The introduction of a new currency requires decisions both about the organisation and timing of the switch and the operation of monetary policy thereafter. Abrams and Cortés-Douglas (1993) discuss the problems of introducing new currencies while removing the rouble or coupon currencies from circulation. Among their main points are:

(a) Arrangements which are simple and transparent are likely to ease the transition and improve confidence. The definition of legal tender needs to be unambiguous.

(b) Provided that it is consistently applied, the conversion rate is essentially arbitrary, and will be determined by such practical

considerations as the value of the stock of old banknotes in circulation.(1)

(c) A particular problem arises if during the period for conversion there are speculative inflows of old roubles from non-residents who expect the new currency to be a better store of value than the rouble. This is potentially destabilising and points to a short transition period.(2)

(d) The handling of rouble banknotes needs to be considered. The CBR may have first claim, so returning them to Russia may extinguish a liability.(3) To the extent that they are not returned to the CBR and have a value in other parts of the rouble zone they may be used to pay non-resident depositors who wish to retain the old currency.

(e) The usual legal and institutional decisions associated with setting up a central bank need to be addressed. These include its role in supervision, reserve management, the operation of monetary policy and the financing of government deficits.

41 As already discussed, an approach favoured by a number of the republics was the introduction of coupon or parallel currencies issued as legal tender at par alongside the rouble. The main attraction of this policy was that as a transitional device it allowed the effects of any monetary overhang or price liberalisation to be loaded onto the parallel currency, with the

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(1) This contrasts with the situation in East Germany, where the conversion rate was crucial since it determined the purchasing power in deutschemark terms of incomes and assets, see De Grauwe (1992).

(2) As more republics abandoned the rouble, those which retained the old rouble as legal tender saw destabilising inflows from republics undertaking conversion to a separate currency.

(3) In practice rouble notes appear to have been consolidated under the debt agreements.

subsequent new currency uncontaminated by past mistakes. But these coupon currencies tended to be inflationary, so negating the potential benefit.

42 The experience of Kyrgyzstan, described in Section IV, illustrates the danger of a partial conversion after which both the new currency and the rouble or the coupon circulated in parallel. Not only does this show a lack of confidence in the new currency, it also complicates monetary control since the central bank is unable to influence the supply of part of the money stock.

Operating monetary policy

43 Although text-book discussions of monetary policy emphasise the dichotomy between fixed exchange rates (endogenous money stock) and monetary targeting, the reality is that neither policy may be applicable in its pure form in transitional economies. What have been called policies of judgmental eclecticism may be the best that can be achieved. This is because the first priority is to tighten macroeconomic policies to bring inflation under control. For all FSU republics this means monetary policies which generate positive real interest rates. For some it also requires much smaller fiscal deficits. Neither is easy to deliver.

44 With unreformed commercial banks and in the absence of properly functioning financial markets, monetary policies may require a combination of instruments to become effective. Reserve requirements set at high levels, high ratios of bank capital to total assets, bank credit ceilings, and quantity controls on the supply of central bank credit may be necessary to reinforce the effect of central bank interest rates set positive in real terms and to reinforce the stability of the system. Early institutional change may also be desirable. For example giving the central bank independence from political control and a mandate for low and stable inflation or establishing a currency board would show strong commitment to low inflation. Bredenkamp (1993) discusses each of these.

45 In the longer term, monetary policies which rely largely on interest rate changes rather than quantity controls will be preferable. For these to work, it is necessary to have a commercial banking system which holds a significant

proportion of its assets as loans to the non-government sector unbacked by central bank credit. Currently, with limited experience of market-based credit allocation and macroeconomic instability, there is considerable uncertainty about the true value of bank assets. In such a situation there are dangers either of bank failure or, if the government is prepared to underwrite banking losses, of moral hazard. Rostowski (1993) argues that this dilemma introduces fundamental instability into the monetary system. Given the importance of a stable banking system, he therefore advocates an important role for foreign banks and caution in removing such controls as high capital asset ratios on domestic banks.(1) The breathing space provided would allow development of banking and supervising skills.

46 Stable monetary conditions with a broadly market-based system of interest rate determination are probably some way in the future for most FSU republics. Once achieved and if a floating exchange rate regime were chosen, the central bank would have to choose a monetary target. The relationship between high powered money and broad based aggregates is likely to be highly uncertain. This suggests that targeting a narrow money target alone may be misleading since the reserve money multiplier is likely to be unstable. This is particularly the case if the cash to credit ratio is low and where banks hold excess reserves at the central bank. In these circumstances a broad money indicator may be more suitable.

Alternative Exchange Rate Regimes and Intermediate Monetary Targets

47 In a highly inflationary environment, whether the exchange rate is pegged to a stable currency, floating or fixed-but-adjustable may not be of crucial importance, see Edwards (1993) in support of this view. Others have argued that, especially in the initial stages of reform and as part of a package of stabilisation measures, a fixed exchange rate can be a useful nominal anchor, provided that certain conditions (adequate foreign exchange reserves, budget balance) are met, see for example Borensztein and Masson (1992).

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(1) As a possible alternative to Western-style commercial banking, Rostowski suggests a dual system of privatised state savings banks and warehousing and payments companies, the latter keeping all their assets as reserves at the central bank and financing themselves by a small 'tax' on turnover.

But if inflation does not quickly respond, the loss of competitiveness is likely to become unsustainable. A devaluation would then be expected, resulting in a loss of reserves and a forced devaluation. The experience of Poland in 1990-91 followed these lines, Asselain (1991). This may explain why, with the exception of the currency board in Estonia, all other FSU and most Eastern European transition economies have opted for floating exchange rates. It is time to look more systematically at alternative exchange rate regimes.

48 Experience elsewhere, most relevantly in Eastern Europe but also in Latin America, shows that exchange rate policies change over time in response to macro-economic conditions in the country concerned, the exchange rate policies of neighbouring economies and also the length of time since the last policy shift, Collier and Joshi (1989), Edwards (1993). Similarly in the FSU, the same exchange rate regime may not be optimal for each republic. The main options are, in descending order of rigour:

(a) a currency board;

(b) fixed or pegged nominal exchange rate, (i) against a single currency, eg the deutschemark, or (ii) against a currency basket;

(c) limited flexibility, with or without formal intervention commitments;

(d) more flexible: (i) managed floating; or (ii) independently floating.

This is the comprehensive IMF classification. For present purposes, limited flexibility may be interpreted as allowing movement within fixed bands as in the 1987-1993 vintage of the ERM. Managed floating can be thought of as a crawling peg where the exchange rate is adjusted by a pre-announced rule, often in terms of maintaining a given level of competitiveness or a constant real exchange rate. The currency board approach is identified separately on institutional grounds.

Currency Boards

49 The apparent success of the Estonian kroon has excited interest in the currency board approach as a possible way towards credible monetary stability, especially for a small open economy. We review progress in Estonia in Section IV below, while Osband and Villanueva (1992) discuss the operation of currency boards in general. An orthodox currency board takes over the central bank function of the issue and redemption of domestic currency. This in turn is convertible on demand at a fixed pre-announced rate for a specified foreign currency. The commitment to convertibility is covered fully by foreign exchange reserves consisting only of the peg currency. Under this arrangement only a commodity (gold) or foreign assets (deutschemarks in Estonia, US$ in Hong Kong) are admissible as reserves. Domestic debt, including that of the government, is excluded from the board's assets. The exclusion of domestic debt is the reason why 100% reserve backing is usually decided on, but fractional reserves, provided that they do not entail domestic debt, are possible, as explained below. The currency board is prohibited from general discretionary lending. However, any excess reserves or seigniorage on the note issue may be transferred to a separate 'banking' institution or the government which could use them to provide credit to the banking system and engineer liquidity growth.(1) Under a classical currency board system there is no guaranteed lender of last resort since the banking instituition is limited by the foreign reserves it holds. Currency board arrangements therefore require that the fiscal authorities act responsibly and commercial banks avoid systemic failure.

50 For many commentators the great merit of the currency board is the non-discretionary monetary and fiscal policies which it requires, see Hanke and Schuler (1991) for example. The proscription of inflation surprises and monetary financing of deficits can only enhance credibility by signalling to the private sector a high degree of precommitment to tight policies. However, compared with the option of full dollarisation, a currency board

(1) If the economy is generating 'excess' foreign exchange reserves from a current account surplus the banking institution can sell these to the currency board in exchange for domestic currency, thereby expanding the monetary base.

does allow some discretion. And at the cost of losing some of the inflexibility and simplicity, some further discretion can be built in.

(a) There is no reason in theory why the exchange rate should be fixed for all time. A slow crawl at a pre-announced rate of depreciation between the home and peg currency is feasible, and would allow the excess reserves created to be used for credit creation by the 'banking' institution.

(b) The reserve currency can be changed or the level of the peg made contingent on states of the world. This would allow the peg to vary if the terms of trade or the reserve currency were subject to large shocks.

(c) Where there is an initial or prospective shortage of foreign reserves, fractional or marginal systems may be envisaged. Under the former only a pre-announced fraction of the domestic currency is fully covered. Under a marginal system, the increase in domestic currency may be 100% backed, but not the initial outstanding stock. Argentina has a type of marginal system, under which all domestic currency is redeemable at the fixed rate, and new issues are fully covered by reserves. Especially with a fractional system, there might be an incentive to fill the gap between new foreign reserves and new currency liabilities with domestic debt, thus undermining the credibility of the system.

(d) There is discretion over what liabilities to back with foreign currency. In Hong Kong only bank notes are backed; in Estonia this is extended to include commercial bank reserve deposits.

(e) While the constraints on fiscal deficits are undoubtedly severe, a government may issue bonds to the non-bank private sector.[1] However, this limitation, while severe, is no more than is expected of prudent OECD governments. Small deficits and no monetary financing are also essential steps, under any exchange rate regime, for a government trying to establish monetary credibility.

51 Historical experience with economies that have adopted currency boards shows that they have, to quote Osband and Villanueva, 'facilitated monetary stabilisation and convertibility, provided that supporting fiscal and monetary arrangements are put in place'. For many of the smaller FSU states with little or no expertise in central banking, a currency board deserves consideration as a policy option, provided that control of the fiscal deficit can be established. The private sector and price setters in particular are likely to view a currency board as minimizing the incentive to renege and devalue, thus increasing credibility. To set against this is the possibility that general political support would be undermined by the output loss caused by tight policies. Bofinger (1991) is also sceptical on the grounds that balance of payments determined money supply would be impractical when deficits are expected. This fear may be exaggerated provided that the initial stock of reserves is adequate and fiscal balance observed.

Fixed nominal exchange rates

52 In 1987 a currency pegged to a single currency, the US dollar or French franc in most cases, was the exchange rate regime most common amongst developing countries, 40% by number of the total according to Collier and Joshi (1989). This was followed by pegging to a composite such as the SDR (28%) and flexible arrangements (32%), of which managed or indicator-based floating accounted for just over half. To generalise broadly, pegging seems to be favoured by small open economies, typically ex-colonies, floating by larger countries in Latin America such as Brazil, Argentina and Mexico.

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(1) Forcing banks to hold government bonds or issuing bonds whose market price subsequent fell yielding non-monetary seigniorage would risk undermining the currency board.

More recent data shows little change in this balance. Earlier, between the mid-1970s and late-1980s, there was a gradual change as the proportion of countries pegged to a single currency, especially the dollar, declined, and that of countries with managed or freely floating exchange rates rose.

53 Much of the existing literature on fixed versus flexible exchange rates is concerned with small open economies with tolerable inflation rates whose main objective is to stabilise output and the balance of payments in the face of transitory shocks.(1) These are not the circumstances in the FSU. Not only are the objectives different, but the pre-conditions for fixing the exchange rate such as adequate foreign exchange reserves, sustainable budget deficits and price stability are not generally in place. Nevertheless, some points from this literature which may be relevant to the FSU republics are worth highlighting. Fixed exchange rates may be better for output stabilisation where domestic monetary shocks are more prevalent than domestic real shocks. Under a fixed rate the money supply is endogenous, so monetary changes are mainly reflected in the international reserves, with no effect on aggregate demand.

(a) To set against this, traditional theory states that fixed rates may be poor at isolating an economy from the effects of external nominal shocks feeding into domestic tradable prices. For the FSU republics, very open to trade with Russia, this consideration is likely to be important.

(b) The greater the degree of openness, the stronger is the general case for fixing the nominal exchange rate on grounds of reducing the transactions costs of international trade. But this is likely to make only a minor contribution to trade performance in present circumstances.

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(1) There is a vast literature on this topic, the main points relevant to lesser developed countries have been summarised by Aghevli *et al* (1991) and Collier and Joshi (1989).

(c) Openness also increases the importance of external balance for output stabilisation and the leverage of overseas demand shocks, increasing the need for the (real) exchange rate to adjust. These arguments point to flexibility rather than fixity.

(d) The degree of wage indexation affects adjustment under a fixed exchange rate. Other things equal, the higher the degree of wage price flexibility and the greater the degree of openness, the more effective is a fixed exchange rate in stabilising output in the face of shocks which require a change in the real exchange rate. Terms of trade and overseas demand shocks fall into this category. But this does not necessarily lead to a preference for fixed rates: depending on the type of shock, a floating rate may still have better insulating properties even when indexation is low.

54 The annex to this paper, drawing on work by Edwards (1992), discusses a formal model which captures some of these points in more detail. It shows that the key parameters in determining the degree of nominal inertia, and hence the loss of competitiveness, are the degrees of indexation in both the exchange rate and wages. With a credibly fixed exchange rate and forward looking wage setting, the domestic inflation rate converges on that in the rest of the world.

55 These conventional arguments can be summarised by saying that in most circumstances, the changes in the real exchange rate which may be required to restore equilibrium in response to domestic real and overseas nominal and real demand shocks are usually best engineered if the nominal exchange rate is allowed to adjust. However where indexation is strong even changes in the nominal rate may have little effect on the real exchange rate.

56 The modern literature on fixed rate sustainability emphasises credibility and dynamic aspects, in particular the relationship between reserves, domestic credit growth and government solvency, Krugman (1979). The key idea is that to maintain a fixed parity the government has to be seen as solvent by creditors. Otherwise they will not provide sufficient borrowed

reserves for the central bank to maintain the parity. In this model the non-borrowed reserves play only a minor role, delaying the point at which a speculative attack takes place against a currency where the government is perceived as insolvent.

57 The essential point of this literature relevant to FSU republics is that even with capital controls, it may be difficult to maintain a fixed rate unless the fiscal position is sound and domestic credit growth subdued.(1) Even if these conditions are met, periodic devaluations, fiscal consolidation or both are likely to be needed in order to restore competitiveness. This cycle is likely to harm the tradables sector. Furthermore, where there are severe adverse output and terms of trades shocks, the equilibrium level of competitiveness may be difficult to establish, especially as it is likely to change over time.

58 For the majority of FSU states, with no record of separate economic management, large government deficits, limited reserves of hard currency and potentially large balance of payments deficits, there must be doubts as to whether a fixed exchange rate is a feasible policy. The choice of peg is a key difficulty. Most FSU republics have rates of inflation greatly in excess of those of potential peg currencies such as the dollar or deutschemark. The use of a currency basket (SDR or ECU) would not overcome the problem. With a currency pegged to the dollar or deutschemark, but trade mainly with Russia, competitiveness of the republics would depend largely on their real exchange rates with the rouble. While there is no *a priori* certainty, the danger of a loss of competitiveness in the short run against both Western countries and Russia would seem considerable. Of course, if all republics including Russia were to adopt the same hard currency peg then this problem would be mitigated to some extent, Bofinger (1993b).

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(1) Formally, there is an upper bound in the long run on the degree of monetisation of the fiscal debt, which is determined by the increase in the demand for money and the degree of monetisation in the economy. Above that limit a speculative attack occurs, undermining the fixed rate, Edwards (1993) page 21.

Flexible Arrangements

59 The arguments for floating exchange rates for the FSU republics are often expressed in terms of the costs of the fiscal and monetary policies that would be necessary to fix exchange rates. However, there are some positive arguments for floating, perhaps the most important of which is that it may provide a signal to exporters that competitiveness will be maintained. As already discussed, this is an important consideration for an economy where the structure of production has been determined by central planning. But if trade to GDP ratios are high, input prices rise sharply if the currency falls.

60 Price liberalisation also complicates establishing equilibrium competitiveness. Immediately following price liberalisation there may be a case for a short-term pegging of the exchange rate, perhaps coupled with wage restraints, to reduce the risk of inflation persistence. Pegging could probably be achieved for a matter of months, as the experience of Poland showed. But unless underlying fiscal and monetary conditions are appropriate, it is implausible to expect a fixed exchange rate to break the inflationary pressures.

61 Once the effects of the liberalisation have worked through and price inflation has subsided, there is a need to establish a level of competitiveness consistent with post-liberalisation relative prices. Exchange rate flexibility may help to do this, especially as output and terms of trade shocks may recur. The need to ensure continued competitiveness is the main reason why Fry and Nuti (1992) favour a crawling peg regime. Poland and Czechoslovakia provide examples which approximate to this model of fixity in the immediate post-liberalisation phase.(1)

62 Paradoxically, perhaps the main danger associated with floating exchange rates is that of severe misalignment from fundamentals, even where

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(1) In the case of Poland the initial zloty peg was maintained from January 1990 to May 1991, when it was devalued and pegged to a basket. Since October 1991 it has followed a crawling peg, see IMF (1992b). The Czeck koruna was fixed against a basket of five currencies in December 1990; in May 1993 the peg was changed to the dollar and mark only.

there are capital controls. As Goodhart (forthcoming) points out, measurement of an exchange rate equilibrium is virtually impossible. Although this might be taken as reinforcing the case against a fixed exchange rate, in practice with few reserves and high exchange rate volatility, severe misalignments can arise. Goodhart cites the ridiculously low implied dollar value of a Russian worker as evidence for this.

Empirical Evidence

63 For a variety of reasons, experience of other developing countries, especially those of Latin America which have faced similar inflation problems, may not be a helpful guide for the FSU. Nevertheless there is some empirical evidence that fixed exchange rates are associated with lower inflation. The countries of the CFA franc zone have had lower inflation than their neighbours, although at a high cost in terms of competitiveness.(1) A recent study by Edwards (1992) investigates whether inflation dynamics in single countries (Chile, Mexico and Yugoslavia) were altered during periods of fixed exchange rates. The results show that for Chile (1980-81) there was no effect, but for Mexico (1988-90) and Yugoslavia (1990) a fixed exchange rate had favourable effects on inflation behaviour. Only in the case of Mexico was the exchange rate peg durable, and all three countries experienced real exchange rate appreciation during the periods of fixity. Edwards also has a cross-section analysis of 52 developing countries for the period 1980-1989. This shows that, after allowing for geographic, structural and political factors, fixed exchange rates were associated with greater financial discipline and lower inflation. But, relevant for the FSU countries, this effect was found to be stronger where inflation performance had been good in earlier years. However, Dornbusch and Fischer (1993), in their study of inflation in eight countries in Latin America, East Asia and Europe with moderate (15% to 30% a year) inflation conclude that none of the evidence they reviewed, either for their own study or elsewhere, 'establishes firmly that the exchange rate commitment significantly reduces the cost of

(1) Member countries agree to no monetary financing of budget deficits, so their superior inflation performance may reflect this as much as the exchange rate rule.

disinflation'. At best, these studies amount only to very weak evidence in favour of fixed exchange rates.

IV Case Studies

64 In this Section we look at illustrative case studies, starting with the three Baltic States. Although not typical, these small, open economies have adopted new currencies but different monetary arrangements which appear durable at this stage. A comparison of their various approaches is therefore of interest. They are quite far advanced towards macroeconomic stability, although progress in many areas of structural reform remains more limited. They provide a benchmark against which to measure performance elsewhere in the FSU.

65 In other republics policies are less settled. Most have now opted for separate currencies, but experience so far is very limited. We have chosen to examine Kazakhstan, Kyrgyzstan and the Ukraine. The Ukraine illustrates the case of a republic which early in 1992 lost control of fiscal and monetary policies and subsequently threatened to undermine macroeconomic stabilisation in Russia. Kyrgyzstan favoured a rapid reform programme and introduced its own currency in May 1993 with the help of the IMF. Kazakhstan, in contrast, was reluctant to depart from the rouble zone, and participated in the abortive negotiations for a new rouble zone in autumn 1993. Only two republics have provisionally agreed to subordinate their economic policies to those in Russia and use the new rouble as their currency - Belarus and Tajikistan. The latter is poor and predominantly agricultural. Belarus is much more closely integrated with Russia: we have included it in the case studies. Box B summarised the present position on currencies. For ease of reference, Table 8 provides comparative economic statistics for the republics discussed.

Table 8: Comparative Economic Indicators

	GDP (% growth rate on year earlier)			Current Account (as % of GDP)	
	1991	1992	1993Q1	1991	1992
Russia	-13	-19	-17	1.3	-4.3
Baltic States					
Estonia	-12	-23	-16	-	1.3
Latvia	-8	-33	-21	-	4.0
Lithuania	-13	-35	-	9.1	4.8
Other Republics					
Belarus	-2	-10	-13	0.4	-
Kazakhstan	-13	-14	-14	-2.5	-9.9
Kyrgyzstan	-5	-19	-	12.2	-8.9
Ukraine	-13	-14	-10	-1.7	-2.8

	Budget Balance (as % of GDP)		Consumer Price Inflation (Average monthly rate)	
	1991	1992	1992	1993Q
Russia	-16.0	-20.0	20.8	24.0
Baltic States				
Estonia	4.6	1.6	15.8	2.1
Latvia	6.3	-0.9	17.2	0.4
Lithuania	2.8	2.2	20.2	2.7
Other Republics				
Belarus	3.6	-3.2	20.3	25.4
Kazakhstan	-7.9	-5.6	17.4	26.3
Kyrgyzstan	4.5	-14.9	21.9	24.7
Ukraine	-15.0	-32.1	20.5	38.1

Sources: See other tables.

The Baltic States

66 The three Baltic States were latecomers to the USSR, only being incorporated in 1944. By the late 1980s there was strong political pressure, with backing from Western countries, for independence. This was gained in late 1991. Separate national currencies are an important expression of sovereignty and they were high on the agenda of the newly independent governments. Proximity to Scandinavian markets may also have encouraged a 'big-bang' approach to stabilisation and market reforms. Ease of access to Western markets, their small size (together they have less than 3% of the total FSU population), low dependence on agriculture and lack of natural resources, makes them atypical of FSU republics.

Estonia

67 The first two countries to be considered, Estonia and Latvia, are quite similar in both structural and policy terms. They are of comparable size and have broadly similar macroeconomic policies, with the important exception of the exchange rate. Estonia established a currency board (the Issue Department of the Bank of Estonia) in June 1992, following fairly orthodox practice, see Bennett (1993).(1) There is 100% backing of the currency (kroons) plus commercial bank deposits at the Bank of Estonia by deutschemark reserves.(2) Access to foreign exchange for kroons is available to all through the currency board at the fixed rate of 8 kroons to the deutschemark. Domestic claims cannot be used to back the kroon liabilities of the Issue Department. This last feature means that the government would have to finance any deficit by borrowing from the private sector or commercial banks, in practice not a problem since the government has succeeded in meeting its balanced budget target. Seigniorage revenues earned by the Issue Department are passed to the Banking Department.

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(1) Cash roubles were exchanged for kroon from 20 to 22 June at a rate of 10 to 1 for residents who had registered, up to a limit of 1500 cash roubles. Additionally, cash could be converted at a rate of 50 to 1 up to 1 July. Enterprises were allowed to convert at 10 to 1. The conversion was trouble-free and complete, Hansson (1993).

(2) The initial endowment of foreign currency was largely provided by pre-war gold stocks repatriated by the BIS and from Sweden.

68 One non-standard feature of the Estonian system is that the Banking Department is allowed to provide loans to the banking system for emergencies, but only up to the limit of its foreign exchange reserves. Under an orthodox currency board there is no lender of last resort. Another feature of the Estonian system which differs from that in Hong Kong for example is continued capital controls: convertibility only applies to current account transactions, and repatriation and conversion of foreign exchange earnings are still required. This may limit access to private capital inflows and dampen currency growth.

69 Estonia started to liberalise prices in 1989, and fiscal reform began in 1990. But macroeconomic stabilisation was hampered by the retention of the rouble. Prices in 1992 rose by over 1000% with the Russian price liberalisation and rises in prices of Russian exports of oil and other raw materials. There was a shortage of cash roubles and the inter-republican payments system deteriorated. This massive external shock contributed to a fall in GDP of 32% for 1991 and 1992 together. Domestic policies were also restrictive. There was a general government surplus of 1.6% of GDP, following a 4.7% surplus in 1991 and a monetary squeeze. Table 9 gives the main economic indicators.

70 This sketch of macroeconomic developments shows that it is possible, although difficult, to run a tight budgetary policy while there is high imported inflation from a predominant trading partner. The Estonian government, unusually in the FSU, was willing to cut back expenditure, including on the social safety net, and to enforce tax obligations on enterprises by use of bankruptcy laws. As elsewhere in the FSU, the continued low level of unemployment has eased the pressure on the budget.(1)

71 Domestic credit conditions have remained tight since the beginning of 1992, and real broad money fell sharply in 1992, IMF (1993a). However, there has been a strong perference for liquidity. The kroon note issue grew

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(1) In 1992 total employment fell by 100,000 or 14% while unemployment rose by 15,000 or 2% of the labour force. A declining labour force (net emigration and lower participation) and rising hidden unemployment account for this difference.

fourfold through 1992, and this accounted for the bulk of the growth of broad money. By the end of 1992 the share of kroon cash balances in broad money had risen to 27%, from 7% in June 1992. The share of foreign currency deposits fell sharply over the same period. This liquidity preference may result from a distrust of the banking system, and be a response to low deposit rates of interest. Also, the switch away from foreign currency may indicate a reversal of dollarisation. Fears about the banking system proved well founded: one bank was liquidated and two others merged in December 1992. Banking reform has a high priority.(1)

72 Since mid-1992 and the currency reforms, inflation performance in Estonia has been good, Table 10. In the second and third quarters of 1993, monthly inflation averaged 2%, much below any other FSU republic except Latvia, Chart 4. However, interest rates and inflation rates remain well above those in Germany, partly reflecting the riskiness of the Estonian banking system and probability that realignment might occur while inflation convergence is incomplete - a sign of imperfect credibility.(2) The fall in GDP has been as large as in the other Baltic states, but now appears to have ceased. The successful switch of trade from the FSU to market with constant competitiveness of traded goods, and higher productivity growth in the traded goods sector then in the country to which the currency is pegged, full inflation convergence is not to be expected.economies, encouraged by trade and payments liberalisation as well as a stability of the exchange rate, is one pointer to the possibility of export-led growth.

73 It is still too early to judge the medium term success of the currency board experiment in Estonia. The initial conditions have been favourable, especially the high level of competitiveness from the undervaluation of the kroon and the government surplus. The massive shock to output has

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(1) With constant competitiveness of traded goods, and higher productivity growth in the traded goods sector then in the country to which the currency is pegged, full inflation convergence is not to be expected.

(2) Financial Times, 27th September 1993.

Table 9: ESTONIA: Main Economic Indicators

	1991	1992	1993
GDP (% change on previous year)	-11.9	-23.3	-2.3(a)
General Government Balance (% of GDP)	4.6	1.6	-0.6(a)
Current Account US$mn(b)	- -	12 (1.3)	- -

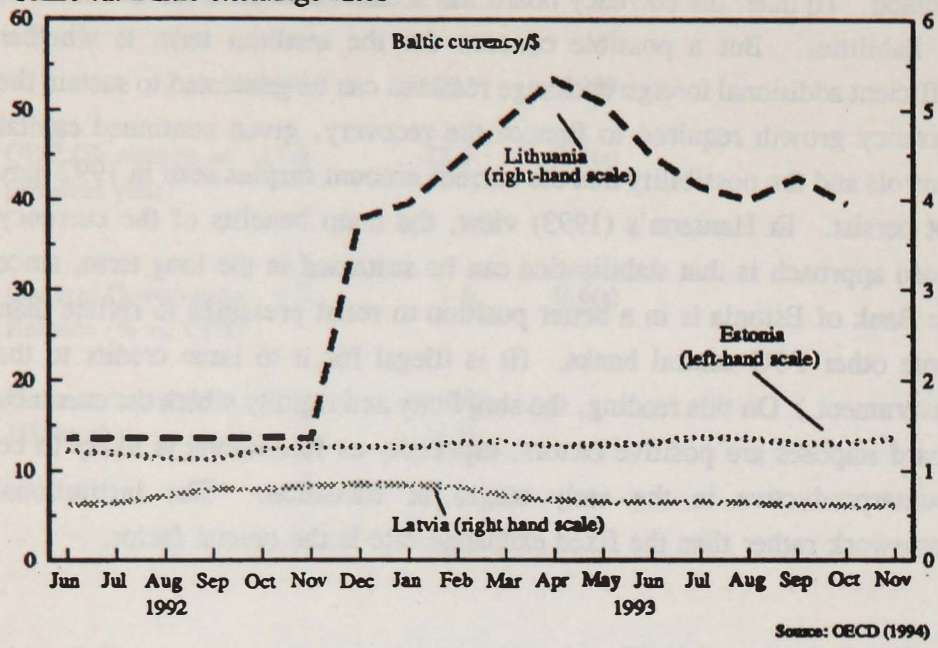
(a) IMF projections, in this and subsequent tables from *World Economic Outlook*, October 1993.

(b) Figure in brackets is as % of GDP.

Sources: IMF *World Economic Outlook*, October 1993; IMF (1993a).

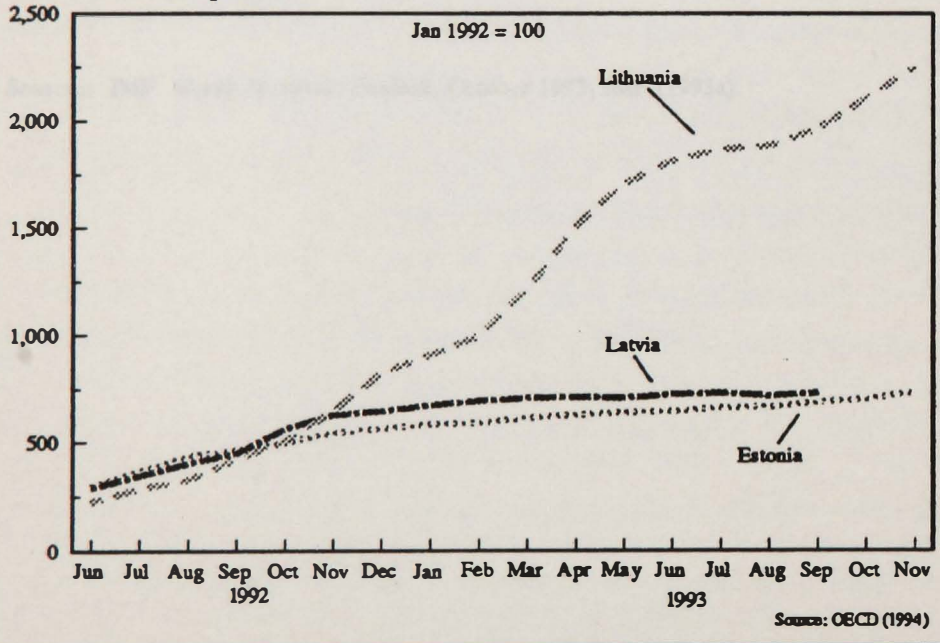
increased the effectiveness of the incomes policy and suppressed import demand. To date, the currency board has accumulated reserves in excess of its liabilities. But a possible concern for the medium term is whether sufficient additional foreign exchange reserves can be generated to sustain the currency growth required to finance the recovery, given continued capital controls and the possibility that the current account surplus seen in 1992 may not persist. In Hansson's (1993) view, the main benefits of the currency board approach is that stabilisation can be sustained in the long term, since the Bank of Estonia is in a better position to resist pressures to reflate than some other FSU central banks. (It is illegal for it to issue credits to the government.) On this reading, the simplicity and rigidity which the currency Board imposes are positive factors, especially as fine-tuning is likely to be counterproductive in the early stages of transition. The institutional framework rather than the fixed exchange rate is the crucial factor.

Chart 4a: Baltic exchange rates



Source: OECD (1994)

Chart 4b: Baltic prices



Source: OECD (1994)

Table 10: ESTONIA: Inflation and Monetary Indicators

	.....1992.....				.....1993.....		
	Mar	June	Sept	Dec	Mar	June	Sept
CPI Inflation(a)	62	9	16	7	3	2	2
Broad Money M3,	1,926	3,193	3,233	3,882	3,384	4,140	-
m Kroon (b)	-	*18.4*	*0.4*	*6.3*	*-4.5*	*7.0*	-
Interest Rate(c) (6 month loans)	-	25	29(d)	28	42	34	-
Interest Rate(c) (time deposits)	-	-	-	-	19	19	-

(a) Average monthly rate in quarter.

(b) Figures in italics are average monthly % changes.

(c) 1992 data from IMF (1993a), 1993 data from Eesti Pank Quarterly Review.

(d) November figure.

Sources: OECD 1994; IMF (1993a); Esti Pank Quarterly Review.

Latvia

74 Latvia relies on tight fiscal and monetary policies and an incomes policy covering the state enterprise sector to achieve macroeconomic stability. At the beginning of 1993 monthly inflation was about 3%-4%. By the third quarter it had fallen to 0.4%, well within the end year target of 0.5% a month and below the rate in Estonia. This may be compared with an average monthly rate of 50% in the first quarter of 1992 at the time of price liberalisation. The disruption of trade with Russia, delays in payment of overseas assistance, sharp reductions in real public consumption - down by one quarter between 1990 and 1992 - and public investment, and a severe monetary squeeze contributed to a fall in GDP of about one-third in 1992. Estimates suggest that after a further fall in the first half of 1993, GDP may have stabilised. Table 11 gives the main economic indicators.

75 There was a substantial deterioration of the fiscal balance between 1991, the year of the first independent budget, and 1992, from a surplus of 6.3% of GDP to a deficit of 1.4%. The main reason for this was the fall in tax revenues, down by over 5 percentage points of GDP, despite additional in-year measures. On the expenditure side, wages and salaries in public sector organisations rose, and there were unexpected delays in the repayment of loans extended to enterprises by the government in the first half of 1992, see IMF (1993c). An incomes policy, which lapsed in mid-1993, set guidelines for the quarter on quarter increase in the wage bill of state enterprises, backed up by a tax on excess wage payments.

76 The Latvian rouble was introduced in May 1992, as a parallel currency and in response to a rouble shortage. This was made sole legal tender in July 1992. It was replaced by the lat in June 1993, though this was little more than a technical completion of the introduction of the new currency. The Bank of Latvia targets reserve money, defined as lats in circulation plus bank deposits at the Bank of Latvia. In 1992, with very tight monetary policies, reserve money grew much more slowly than the rise in prices. Since the beginning of 1993 reserve money has increased faster than prices. This is in response to a lowering of interest rates - done partly to stem an

Table 11 - LATVIA: Main Economic Indicators

	1991	1992	1993
GDP (% change on previous year)	-8.3	-32.9	-10.0(a)
Broad Money (M2X)(b)	153.1	170	137
Exchange Rate(c)	-	0.684	0.681
General Government Balance (% of GDP)	6.3	-0.9	-1.5(a)
Current Account (US $mn)	-	43	-
(% of GDP)	(-)	(4)	-

	1992				1993		
	Mar	June	Sept	Dec	Mar	June	Sept
Consumer Price Inflation(d)	48.4	13.1	16.0	12.9	3.2	0.8	0.4
Interest rate on commercial bank loans	27.5	51.1	85.0	92.0	-	-	-
Bank of Latvia(e) deposit rates	6.0	30.0	70.0	80.0	-	-	-

(a) IMF projection.
(b) 1991,1992 % change December on December including residents' foreign currency deposits. 1993 figure is July 1993 on July 1992, excluding foreign currency deposits.
(c) Lats/US dollar; 1993 is average of January to November.
(d) Average monthly rate in quarter.
(e) Short term; maturity less than six months.

Sources: IMF *World Economic Outlook*, October 1993; IMF (1993c); OECD(1994).

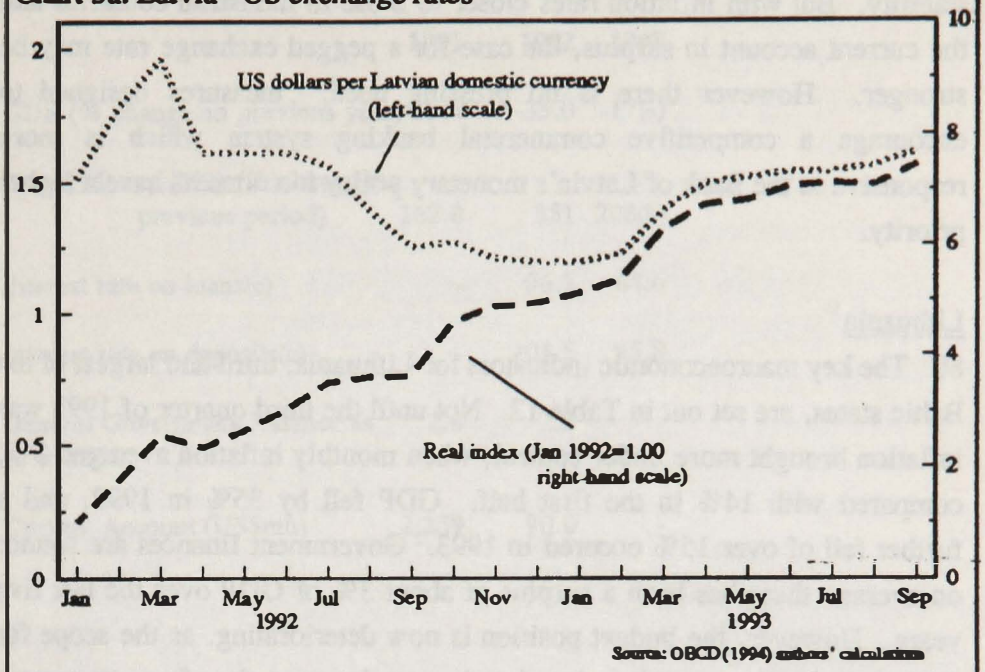
inflow of foreign currency - and low rates of inflation which have encouraged remonetisation. A switch out of unmeasured foreign currency, de-dollarisation, may also have been a factor.

77 Broad money has followed a similar trend. Broad money velocity increased by about 50% between the end of 1991 and mid-1992. Since then it has followed a steady downward path. An additional factor impinging on M2 growth has been the persistence of very high market real interest rates, which has encouraged a rapid growth in bank deposits. Deposit rates have remained well below loan rates. While this wedge eased the task of monetary control as monetary policy was tightened, it contributed to the strength of foreign currency inflows in 1993, so complicating the task of monetary policy. It is also symptomatic of a lack of competition in the banking sector.

78 Monetary conditions have been reflected in the nominal and real exchange rates. As Chart 5a shows, the Latvian rouble had regained its July 1992 value against the dollar by March 1993. In real terms it about doubled against the dollar. Against the Russian rouble there was a threefold increase in nominal terms over the same period. The corresponding rise in the real exchange rate was about 70%, reflecting the much higher average inflation rate in Russia. As already noted, there were strong capital inflows in summer 1993. However, the lat appreciated only moderately, as the Bank of Latvia lowered its refinancing rate and took the opportunity to build reserves. In its first year as an independent currency, the foreign exchange markets appear to have taken the view that Latvian economic policies have been effective and credible, although a view that the exchange rate was initially undervalued may also have contributed to the strength of the currency.

79 Taking the period from January 1992 to mid-1993 as a whole, the cumulative rise in prices in Latvia and Estonia has been similar. Competitiveness and exchange rate developments have also been broadly similar. This implies that it is possible to reduce inflation dramatically provided that there is a commitment to tight policies, including a government

Chart 5a: Latvia - US exchange rates



Source: OECD (1994) authors' calculations

Chart 5b: Latvia - Russia exchange rates

Source: OECD (1994) and authors' calculations

fiscal position close to balance. The Latvian experience suggests that pegging the exchange rate in the early stages is not necessary to achieve stability. But with inflation rates closer to those in industrial countries and the current account in surplus, the case for a pegged exchange rate may be stronger. However there is no pressing need; measures designed to encourage a competitive commercial banking system which is more responsive to the Bank of Latvia's monetary policy instruments have a higher priority.

Lithuania

80 The key macroeconomic indicators for Lithuania, third and largest of the Baltic states, are set out in Table 12. Not until the third quarter of 1993 was inflation brought more under control, when monthly inflation averaged 3%, compared with 14% in the first half. GDP fell by 35% in 1992, and a further fall of over 15% occured in 1993. Government finances are sound: on average there has been a surplus of about 3% of GDP over the last five years. However, the budget position is now deteriorating, as the scope for further expenditure cuts is reduced and unemployment rises from its current low level. Monetary financing of any deficit seems likely. A rigorous incomes policy has also been in place, and this contributed to a fall of 40% in real wages through 1992.

81 Lithuania has seen a very rapid rise in monetary velocity. Broad money velocity rose threefold between 1991 and 1992, and this continued into early 1993. The talonas, the interim currency introduced to replace the rouble in May 1992, depreciated by over 500% against the dollar between its introduction and its floor in April 1993. The currency markets regarded it as a one way bet. It was not until May and June 1993, when the talonas was replaced by the litas, that this sentiment was reversed.(1) It then appreciated by about 20%, coinciding with a fall in the monthly inflation rate from 25% in April to a low point of 1% in August. Inflation rose again in the final months of 1993, to over 6%.

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(1) The temporary nature of the talonas, announced in advance, may also have contributed to this lack of confidence.

Table 12 - LITHUANIA: Main Economic Indicators

	1991	1992	1993
GDP (% change on previous year)	-13.4	-35.0	-17(a)
Broad Money (M3) (% change on previous period)	162.0	351	208(b)
Interest rate on loans(c)	-	96.1	64.6
Interest rate on deposits(c)	-	103.5	95.8
General Government Balance as % of GDP	2.8	2.2	-
Current Account (US$mn)	2,259	90.0	-

(a) Ministry of Economy forecast.

(b) June 1993 on June 1992, OECD (1994).

(c) 1992 figures are 3-6 month commercial bank rates for December; 1993 figures are September.

Sources: Bulletin of the Bank of Lithuania; IMF *World Economic Outlook*, October 1993; IMF (1993d); OECD (1994).

82 The turnaround in the exchange rate was preceded by a sharp tightening of monetary policy in spring 1993. The Bank of Lithuania announced a large increase in the reserve requirements of commercial banks at the central bank, with coverage extended to include foreign currency deposits. It auctioned central bank money to meet the liquidity squeeze created by the new reserve requirement, and succeeded in raising interest rates. It also indicated that it would use the talonas/dollar exchange rate as a short-term indicator of monetary conditions, and adjust interest rates accordingly. This, and the appreciation of the talonas, succeeded in deterring commercial banks from taking large open positions on the currency, a major reason for its earlier weakness.

83 On the strength of this improvement in monetary conditions, the Bank of Lithuania decided to go ahead, over a 25 day period from 25 June 1993, with the replacement of the talonas by the fully convertible litas.(1) As part of this, the requirement that 25% of convertible currency earnings had to be surrendered has been removed. Since its introduction, the litas has followed a switchback course, first appreciating from its initial value of 4.5 to the dollar to 2.8 to the dollar in early September. It subsequently fell back sharply to 4.3, probably reflecting an apparent easing of monetary policy, an attempt to build reserves by the Bank of Lithuania and more pessimistic views about prospects, especially on trade. In early December it stood at 3.9.

84 The example of Lithuania is instructive in showing how the private sector can frustrate government policies in the absence of credibility. Thus monetary conditions were effectively easy, despite the Bank of Lithuania meeting its targets for broad and reserve money. With the benefit of hindsight, there was a strong case for earlier tightening of monetary conditions in the autumn of 1992, once it had become clear that monthly inflation rates were rising back above 20% and the slide in the talonas was well under way. Arguably, the Bank of Lithuania relied too heavily on indicators of reserve and broad money, paying insufficient attention to a

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(1) The talonas was planned as an interim currency, and not fully convertible.

range of indicators. It acted decisively only late in the day. These are the hallmarks of an inexperienced central bank subject to political pressure. Given the volatility of the exchange rate, the difficulties experienced by the central bank and the sound fiscal position, a currency board would seem to offer a good way of locking into low inflation and enhancing the credibility of monetary policy.

Independent Currencies outside the Baltic States

85 The non-Baltic FSU republics are diverse in terms of geography, industrial structure and resource endowments. Some, notably Azerbaijan, Georgia and the Ukraine, are politically unstable and have poor relations with Russia. Belarus and Kazakhstan, examined here, are more stable and have closer relations with Russia.

Kazakhstan

86 Kazakhstan is a substantial producer of oil, which it can export via Russia for hard currency, coal, iron and steel, and building materials. It has the third largest population outside Russia, with 17mn inhabitants, and comparative political and ethnic stability. About one quarter of employment is in agriculture. Kazakhstan has been slow to embark on macroeconomic stabilisation and structural reform, reflecting the more gradualist approach favoured by its government. Measured GDP fell by about one third from the beginning of 1991 to the end of 1993, less than in many other republics, see Table 5. But this is more likely to reflect statistical unadequacies and the importance of raw materials and agriculture, there was a good harvest in 1992 following a poor one in 1991, than the gradualist approach to policy.

87 The government never showed enthusiasm for a separate currency. It entered the negotiations for the new rouble zone in August 1993, and only withdrew once it had decided that the terms being demanded by Russia were too costly. The new currency, the tenge, was introduced on 15th November 1993. Prior to that the currency was the old rouble. Its experience is of particular interest in illustrating the problems of life with monetary policy largely conducted by the CBR.

88 Price liberalisation took place in January 1992, at the same time as in Russia, with many retail prices rising three to five fold. But the process was incomplete, with about 20% of retail prices remaining controlled, including petrol fixed at only about 20% of world levels. For 1992 as a whole, retail price inflation averaged 27% per month, and continued at over 25% in the early months of 1993, a little higher than in Russia, see Chart 3a. Price controls were reintroduced as a temporary measure alongside the introduction of the tenge. This was probably a necessary expedient given the surge of old roubles flowing in from other republics and rising inflation.

89 Continued membership of the rouble zone had budgetary implications. In 1992 tax revenue fell to 17% of GDP, from 21% in 1991, in part reflecting the accumulation of payments arrears by importers in other FSU states and the use of barter trade as a tax avoidance device. Nevertheless, major tax reforms such as replacing sales taxes by VAT were introduced with the 1992 budget. Expenditure has been controlled rigorously, helped by the phasing out of consumer subsidies, reductions in investment expenditures and a restrictive wages policy. The government deficit fell by about 2 percentage points of GDP in 1992 to 5 1/2%.

90 The contrast with monetary policy could hardly be more stark. In the rouble zone, monetary conditions were effectively under the control of the CBR, although the National Bank of Kazakhstan (NBK) had some influence. Immediately after price liberalisation in January 1992, the NBK attempted a relatively tight credit policy and in the first half of 1992 currency only doubled compared with an eightfold rise in prices. This created cash shortages and the accumulation of arrears on domestic payments, including wages. But Kazakhstan did not issue coupon roubles, so the currency issue was determined by CBR shipments of notes. Prior to the Russian demonetisation of July 1993 there was a severe cash shortage, reflecting a flight from cash for both savings and transactions purposes.

Table 13: KAZAKHSTAN: Main Economic Indicators

	1990	1991	1992	1993
GDP (% change on) previous year	-0.4	-13.0	-14.0	-7.5(a)
Broad Money (M2) (% change on previous year)	-	211.0	553	-
Rouble/US$(b) (end year)	0.6	1.75	475	-
General Government Balance (% of GDP)	1.2	-7.9	-5.6	-6.0(a)
Current Account (% of GDP)	-3.6	-2.5	-9.9	-

	.....1992.....				.....1993.....		
	Mar	June	Sept	Dec	Mar	June	Sept
Consumer Price Inflation(c)	53.1	15.0	11.0	19.7	28.3	18.3	26.3

(a) IMF projection.

(b) 1990 and 1991 figures are the official CBR rates, 1992 Alma-Ata auction rates.

(c) Average monthly rate in quarter.

Sources: IMF *World Economic Outlook*, October 1993;
IMF (1993b); OECD (1994).

91 In common with other rouble zone republics, the NBK exhausted the 'technical limit' on its correspondent account with the CBR towards the end of 1992, see paragraph 11. The limit was raised, and the CBR extended credit for the settlement of inter-enterprise arrears. Broad money and credit grew rapidly in the second half of 1992, although for the year as a whole it fell by about one third in real terms. Since Kazakh non-cash roubles could not be used for the payment outside the republic, a *de facto* exchange rate emerged. Kazakhstan provided a good example of the problems of trying to conduct monetary policy within the rouble zone. Policy was subject to rapid shifts. Any attempt by the NBK to pursue a more disinflationary monetary policy than that of the CBR was likely to be frustrated. However, there was no evidence that the NBK desired this: it was apparently reluctant to raise its refinancing rate to market levels. Now that a separate currency has been established, the need for a decisive tightening of monetary policy is even more pressing if an uncontrolled slide in the tenge is to be avoided.

Kyrgyzstan

92 The central Asian republic of Kyragyzstan, has a population of 4.4mn and an income per capita about 75% of the FSU average. One third of its employment is in agriculture and forestry, and it has few mineral or natural resources. In 1989 about one third of its GDP was traded, of which 85% was with other parts of the FSU, close to the average for FSU republics. The statistical database for the economy is limited. Table 14 gives some of the more important indicators.

93 From the beginning of 1992 economic developments have been dominated by membership of the rouble zone and the collapse of inter-republican trade. The inflation rate followed quite closely that in Russia. Although data are unreliable, it is clear that there have been large fall in export values (perhaps 20% in 1992) but smaller (10%) falls in import values, imparting a significant deflationary shock to GDP. Terms of trade are estimated to have worsened by over one third between first halves of 1992 and 1993. The fall in output induced a government deficit of 15% of GDP in 1992, following a surplus in 1991. This appears to have been partly financed through the National Bank, and reserve money rose sharply.

Table 14: KYRGYZSTAN: Main Economic Indicators

	1990	1991	1992	1993(a)
GDP (% charge on year earlier)	4.0	-5.0	-26.0	-11.8
General Government balance (% of GDP)	0.2	4.5	-14.9	-4.7
Current Account (% of GDP)	-6.2	12.2	-8.9	-

	1992				1993		
	Mar	June	Sept	Dec	Mar	June	Sept
CPI inflation(b)	49.1	13.6	20.3	30.3	32.5	19.6	24.7
Average real wage (1990=100)	41.0	51.0	54.0	82.0	41.0	36.0	-

(a) IMF Projections.
(b) Average monthly rate in quarter.

Sources: IMF *World Economic Outlook*, October 1993; IMF (1993h); OECD (1994).

94 The new currency, the som, was introduced in May 1993. Experience since illustrates some of the difficulties which can arise. The conversion to the som was only partly successful. About one quarter of cash roubles in circulation were converted. A marked preferance for roubles persisted, for example to pay for imports from the rouble zone. Non-ethnic Kyrgyz contemplating emigration were also a source of demand for roubles. This response has increased the difficulty of monetary control. Recorded money stocks fell sharply and velocity has risen sharply. The National Bank's foreign liabilities, ie its rouble debts, fell by less than anticipated. This means that the external debt position has deteriorated, as the quantity of roubles withdrawn from circulation on conversion was smaller than that previously issued.(1) The commercial banks' deposit base also fell. With unconverted cash roubles remaining a substantial part of the money stock, the control exercised by the National Bank through som interest rates is limited. The low level of savings further weakens leverage. In common with other republics, the domestic payments system is in need of overhaul, with the large and unpredictable cash float making it difficult for the National Bank to control its credit to commercial banks.

95 The uncertain economic background, the failure to obtain full conversion and the difficulties and inevitable lack of transparency in monetary control were factors behind the volatile movements in the som in the early weeks. Initially it appreciated sharply, but subsequently fell back by mid-August to two thirds of its starting value. In the third quarter monetary expansion is thought to have been very high, with a deteriorating budget position towards the end of 1993.

96 The introduction of the som is so recent that it is too early to say how these early problems will be resolved. After reaching a low point of about 16%-17% immediately after the currency reform, the monthly inflation climbed sharply in August and September 1993. However, some benefits can

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(1) The Russian demonetisation of July 1993 left official currency unaffected, in contrast to the position in republics still using roubles. But it reduced the value of old rouble notes still circulating and may have hastened acceptance of the som.

be identified, and decisions have been taken which might otherwise have been delayed. The new currency is freely convertible on current and some capital transactions. The level of the som is determined in a weekly foreign exchange auction. Convertibility is accompanied by a liberal trading system, generally free of quotas and quantitative restriction. This should help to reverse the trend towards barter and interstate trading which had been prompted by the collapse of FSU trade and the growth of arrears on correspondent accounts. It should also help to integrate Kyrgyzstan into the world trading system and give appropriate market price signals.

97 The international trade and payments reforms appear to be running well ahead of domestic liberalisation. The market for domestic credit remains primitive and partly as a consequence real interest rates are negative. But the separate currency has at least forced the National Bank to move towards positive real interest rates, something it was able to avoid whilst in the rouble zone.

98 Kyrgyzstan is likely to be heavily dependent on grants and loans from the international financial institutions for the foreseeable future. These will usually be on concessional terms, and used to finance prospective current account deficits. Mechanisms for controlling interest rates are very rudimentary. Official reserves are low. These three factors, especially the last, suggest that the decision to opt for a freely floating rather than fixed exchange rate was the right one. As yet there is no evidence that Kyrgyzstan is using its monetary independence to tighten policies to bring its inflation rate below Russia's. A good sign for macroeconomic stability would be if the projected narrowing of the fiscal deficit in 1993 was actually achieved.

Ukraine

99 Any assessment of FSU monetary developments needs a mention of the Ukraine, by virtue of its size - it has about the fifth of the total FSU population - and the extreme problems which it faces. The lack of financial discipline was reflected in very high inflation in the final quarter of 1993, perhaps as high as 70%-100% a month, a plunging exchange rate and a huge budget deficit, equivalent to over 30% of GDP in both 1992 and 1993.

Provisional figures for early 1994 show a sharp fall in inflation, to around 10%-15% a month. Tables 15 and 16 give the key figures.

Table 15: UKRAINE: Main Economic Indicators

	1991	1992	1993
NMP/GDP(a)(% change on previous year)	-13.4	-14.0	-18.2(b)
Interest rate levels NBU Refinancing Rate(d)	12.0	80.0	240.0(c)
Interest rate levels Savings Banks 1-3 years(d)	2.0	6.0	85.6(e)
General Government Balance (% of GDP)	-15.0	-32.1	-17.5(b)
Current Account (US$bn)	-2.9	-0.6	-

(a) Net Material Product for 1991.
(b) IMF projections.
(c) November 1993.
(d) End period.
(e) October 1993.

Sources: IMF *World Economic Outlook*, October 1993; IMF (1993f).

Table 16: UKRAINE: Inflation and Monetary Indicators

	.....1992.....			.....1993.....			
	June	Sept	Dec	Mar	June	Sept	Dec
CPI Inflation(a)	12.8	15.7	22.7	41.5	29.3	38.1	n.a.
Karbavonets/$(b)	100	350	749	2,180	3,980	16,950	37,000
Money Supply (c)	778	1,263	2,687	-	-	-	-
(Karbavonets Mns)	-	-	2,758	6,181	11,265	39,500	-
	27.5	*17.5*	*28.6*	*30.9*	*22.1*	*52*	-

(a) Average monthly rate in quarter.

(b) Auction rate; June 1992 is market rate. December 1993 figure is Ukrainian estimate. End period figures.

(c) From December 1992 figures include residents' foreign currency deposits. Figures for June -Dec 1992 are from IMF (1993f), from Dec 1992 to Sept 1993 from Ukraine in Numbers. Figures in italics are average monthly % change.

Sources: IMF (1993f); OECD (1994); Ukraine in Numbers.

100 The Ukraine formally withdrew from the rouble zone in November 1992, but this did not lead to any tightening of monetary policy. Early on the karbovanets depreciated sharply against the rouble; in April 1993 it had held less than one quarter of its November 1992 starting value. Against the dollar the fall has been more rapid still, in December 1993 it had fallen to about one tenth of its March 1993 value. Despite currency inconvertibility and a 50% surrender requirement on foreign exchange earnings, there has been significant capital flight, although its extent is unknown.

101 Inflation in 1992 averaged 27% a month, and it rose even higher in 1993, reaching 65% and 71% in September and October. However, despite these very high rates, the Ukraine has not strongly displayed the usual behavioural symptoms of hyperinflation. It has avoided the rapid rise in money velocity associated with a flight from cash, which usually leads to rapidly accelerating inflation. Dollarization was extensive at the end of 1993, having been negligible a year earlier. This may help to explain why the Ukraine has avoided a classical hyperinflation, with the sharp slowdown in inflation in early 1994.

102 The large budget deficit and monetary indiscipline remain problems. A reduction in the budget deficit would require an end to large scale price subsidies, particularly on agricultural products, and policies to prevent the continuing drain by state enterprises. There seems to be little prospect of this occuring, and some pressures for increased expenditure, for example to compensate savings bank depositors for their real losses. The government deficits have been financed by credits advanced by the National Bank of the Ukraine (NBU), effectively monetized. For most of 1992 and 1993 credits to enterprises grew in line with inflation. For 1993 as a whole real broad money fell, with a particularly sharp contraction in the fourth quarter. However, interest rates were only a small fraction of the inflation rate. The range of interest rates is also a very wide: the official NBU refinancing rate (quoted in Table 15) was 240% at the end of 1993, although it charges much below this for certain debtors, while the commercial bank credit rate was about 1200% and the one year deposit rate at the state savings bank was 400%. The slowdown in monetary growth at the end of 1993, which

involved a credit moratorium, is an indication of the NBUs desire to bring inflation lower. But it is too early to say whether this marks a shift to tighter monetary policies on a sustained basis: the pressures from interest groups, especially in the state enterprises, remain strong. In current circumstances, the choice of what exchange rate regime to follow is of second-order importance.

Belarus

103 Belarus has few natural resources, and is heavily dependent on Russia both as a market for its manufactured products and for energy supply. It has not embraced the need for a rapid move to a market economy, and the political climate moved in early 1994 in favour of integration with Russia. Belarus maintains some of the apparatus of a command economy such as price subsidies and profit controls. Credit is allocated administratively and nominal interest rates are well below inflation rates. Foreign exchange is non-convertible, with the usual paraphernalia of surrender requirements, multiple exchange rates and the use of non-cash roubles for use in settlements of trade payments through correspondent accounts with the CBR. Bilateral trade agreements, especially with Russia, remain important.

104 Belarus appears to have experienced comparatively mild economic dislocation. Table 17 shows that GDP in 1992 fell by only 10%, with a small general government deficit and current account surplus. But the quality of the data is considered poor, and they are probably insufficiently reliable to infer linkage between policy and performance. In 1992, inflation followed that in Russia quite closely, but at a slightly lower rate. However in 1993 it moved higher, averaging 27% a month in the first three quarters.

105 In common with most rouble zone republics, Belarus issued both coupons and non-cash Belarus roubles. The latter traded at about four to the Russian rouble in early 1994, reflecting the higher inflation rate in Belarus. Under a proposed joint monetary system, a protocol for which was signed in December 1993, Belarus would replace all currency issued by its national bank by post-1993 Russian roubles, and the CBR would become the single

Table 17: BELARUS: Main Economic Indicators

	1991	1992	1993(a)
GDP (% change on previous year)	-2.0	-10.0	-14.0
General Government Balance (% of GDP)	3.6	-3.2	-7.0
Trade balance % of GDP(b)	6.6	1.3	-

Monetary Indicators

	.....1992.....				1993
	Mar	June	Sept	Dec	Mar
Broad money (bn roubles)(d)	63.2	116.7	164.5	305.4	380.7(c)
	6.4	*22.7*	*12.1*	*22.9*	*7.6*
Consumer price inflation(e)	76.8	15.6	10.3	21.2	30.6
Interest rate levels (short term loans)	12.8	15.6	19.2	20.5	23.9
Interest rate levels (Sberbank deposits)	3.0	3.0	6.0	8.0	20.0

(a) IMF Projection.
(b) Figure for 1991 is for intra USSR trade only.
(c) February.
(d) Figures in italics are average monthly % increase.
(e) Monthly average for quarter.

Sources: IMF *World Economic Outlook*, October 1993; IMF (1993g); OECD (1994).

money issuing authority. There would be joint monetary, budgetary and taxation policies, and provision of joint gold reserves. The influence that the Belarus government would have in joint decision making is unclear. A decision on the allocation of seigniorage between the two countries would be made. Also open for negotiation are the prices of Russia's energy exports to Belarus. These are currently held below world market levels, but above Russian domestic levels. Belarus is seeking the removal of this gap. Furthermore, Russia has recognized the case in principle for fiscal transfer to Belarus in the event of an adverse asymmetric shock.

106 This case illustrates the difficulties of monetary union between just two republics, even where there is political will. For Belarus the main advantages would be continued access to the Russian market for manufacturers and cheap energy supplies. But the monetary union would also mean that Belarus effectively ties its progress on stabilisation to that in Russia.

V Summary and Conclusions

Gradualism versus big-bang

107 A wide variety of approaches is being adopted both to macroeconomic stabilisation and structural reform in the FSU. However, a fairly clear pattern is emerging, centred on the attitude to gradualism and the pace of reform. At one end of the spectrum are the Baltic states. They have adopted policies aimed at rapid integration into the world economy, recognising that macroeconomic stabilisation is essential if wage, price and trade liberalisation and other structural reforms are to be successful. This is not so much a matter of correct 'sequencing', but a realisation that the microeconomic benefits of the market are hard to realise with rampant inflation. The short-term output costs of the Baltic states' approach have been very high. Over time, however, it is not clear that the cumulative loss of output involved is greater than would have been involved in a more gradualist approach. So far workforces have been shielded from the unemployment consequences. This, together with attention to social safety nets, may be one reason why the pro-reform constituencies in these countries have been maintained.

108 Among the non-Baltic republics surveyed, the gradualist approach to reform is seen in Belarus and Kazakhstan. These countries are very dependent on Russia as an export market, an import supplier and provider of finance. Access to alternative non-FSU markets is difficult because the structure of output is dominated by heavy and defence-related industries. In common with others, these republics appear to have benefited from Russian assistance under the pre-1992 system. This took the form of direct budgetary help, industrial policies which favoured certain industries in particular areas, and provision of energy and other materials at below world prices. These subsidies have now been rolled back but not completely eliminated.

109 Over the three years 1991-1993 the cumulative loss in output in both Belarus and Kazakhstan has probably been less than in most other FSU states, including Russia. Although it is tempting to see this as linked to their gradualist approach, more likely explanations are provided by the structure of output and trade, and poor data. Persistent macroeconomic instability is only likely to prolong the loss of output.

Separate Currencies

110 The experience of separate currencies in the FSU republics is very recent, the first were introduced only in May and June 1992. It is also very mixed. Estonia and Latvia, and very recently Lithuania, have made impressive progress towards low inflation. Of the other republics examined, the Ukraine had inflation over 50% a month towards the end of 1993, for which the huge government deficit and unrestricted credit growth were largely responsible. In this case continued monetary integration might have acted as a restraining influence. Kyrgyzstan introduced the som only in May 1993 and it is too early to tell what is likely to be the macroeconomic impact. However monetary control is proving difficult, especially while old roubles circulate alongside the som.

111 Both theory and experience elsewhere give some indication of the policies necessary for a successful transition to a new, stable currency. At the outset, it is necessary to remove roubles from circulation, by declaring them invalid as legal tender and making the issue of the new currency

conditional on the return of old notes. The failure to do this has complicated monetary control in Kyrgyzstan. The timing of the introduction may be important. Price liberalisation and the removal of any monetary overhang should take place before the new currency is introduced. The Ukraine, and less clearly Kyrgyzstan and Kazakhstan, failed to do this.

112 Setting up the new currency is relatively easy; afterwards hard decisions have to be taken. A government balance close to zero is necessary. Otherwise monetary financing of the budget deficit is inevitable in the absence of a market for government debt. The Baltics have fulfilled this condition, and it appears to be an important reason for their success. The imposition of hard budget contraints and strict limits on the growth of subsidies to enterprises are vital in this context. Alongside the decline of trade with Russia and the associated terms of trade shock, most republics have experienced a deterioration in their current account positions. It is one of the more encouraging signs that all the republics with separate currencies except the Ukraine have introduced current account convertibility. This has helped to re-orientate trade towards the West, as well as providing market price signals for the tradables sector.

113 It would be wrong to extend this list of conditions too far. The Baltics have only gradually been able to settle payments arrears with Russia. And progress on privatisation and reform of the banking sector and payments systems have been slow. Yet these difficulties have not hindered progress on macroeconomic stabilisation.

Monetary Policy and Exchange Rates

114 The success or otherwise of the new currencies depends on the operation of monetary policy. For the non-Baltic republics the main priority is to control money and credit growth and establish positive real interest rates to bring inflation lower. There is ample evidence, for example from Russia, the Baltic states and the Ukraine, of the money - inflation link. The strategic choices of whether to have a fixed exchange rate, with or without a currency board, or domestic monetary targeting with a floating exchange rate are secondary at this stage. The experience of Estonia and Latvia bears this out.

The case studies suggested that in the non-Baltic republics the urgent need for tighter monetary policies has not so far been appreciated or acted on. In the early stages, simple rules, together with non-market ceilings on credit expansion and high deposit ratios at central banks, may be required to reduce monetary growth and establish a degree of credibility.

115 Once inflation has been brought to more moderate levels, less than 2%-3% a month, the exchange rate regime question becomes more relevant. Theory and experience in other developing countries suggest that a fixed exchange rate may, under certain conditions, be a better nominal anchor than either monetary targeting or wages policies. And, with inexperienced central banks, fragile commercial banking systems, and no stable relationships on which to base conventional monetary control rules, the case for an exchange rate target would seem to be even stronger in the FSU. Moreover, Estonia with its currency board, the former Czechoslovakia, and Poland with pegged exchange rates are three of the success stories among the transition economies. However, apart from Estonia, all of the other FSU republics with separate currencies have opted for floating exchange rates, generally with little intervention. This is because most of the pre-conditions for fixing the exchange rate are not yet in place, and are unlikely to be for some time to come.

116 Once the pre-conditions for a fixed exchange rate have been met, some arguments point to continuing with a floating exchange rate:

- If Russia remains a predominant trading partner then the choice of exchange rate regime will depend on Russia's success in stabilising its economy. If it remains a source of demand and price shocks then the republics will minimise these spillovers by opting for a floating rate. (In principle a peg with the deutschemark, which would imply flexibility with the rouble, might be an acceptable alternative.) If over the medium term Russia becomes a relatively stable economy then the case for a fixed exchange rate linked to the rouble becomes stronger.

- As trade with market economies grows, the FSU states will become increasingly concerned with their trade competitiveness. Again, if inflation rates remain above those in the main new markets, nominal exchange rate adjustment may be required. There is also a danger that a fixed exchange rate may be introduced at an initially undervalued level, with adverse inflationary consequences subsequently. Some argue that this was the Polish experience. A fixed-but-adjustable exchange rate would reduce the incentive for an initial undervaluation.

- The choice of the peg would be particularly difficult for most FSU republics. A currency basket lacks the advantage of transparency, and trade flows with either the US or Germany are likely to remain quite small.

117 To set against these points the most powerful argument for a fixed exchange rate is that it would provide transparency and credibility to monetary policy and so help to maintain low inflation once achieved. Periodic adjustment under a fixed-but-adjustable system would not necessarily undermine the case, although it might require careful handling if the price shocks associated with devaluations were to be avoided.

118 Some commentators have argued that the Estonian experience with a currency board, in which a pegged exchange rate is a necessary part, provides a good model for other republics. While the Latvian example shows that a country can do equally well with more discretionary monetary policies, at least in the early stages, the general point is well taken that improvements are needed in the operation and credibility of monetary policy. Steps to increase the independence from political interference of the central bank and to sharpen its focus on the essential tasks of monetary policy would seem to be highly desirable. There is much scope for this. A currency board would enforce this separation and independence through the greater automaticity of its operations. In Estonia and the other Baltic states a currency board appears to be a good way of locking into low inflation. It may also help to bring inflation down if other policies are working in the same direction.

Elsewhere in the FSU, where conditions are currently much less favourable, one can doubt its general applicability, at least at the present stage in the transition.

119 In the absence of a currency board, the arguments for a fixed exchange rate look weak. It is possible to introduce a new currency and quickly achieve low inflation with a floating rate, as the cases of Latvia and, outside the FSU, Slovenia, show.

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ANNEX

A simple macro-model of inflation and exchange rate determination

1 In this annex a simple macro-model due to Edwards (1992) is used to show the effects on inflation of different degrees of nominal inertia and indexation, and different assumptions about the behaviour of nominal exchange rates. Competitiveness, terms of trade and capital flows issues are ignored. To start with the nominal exchange rate is assumed to follow a crawling peg accommodating past inflation differentials. Monetary policy is also assumed to accommodate inflation. While the model was designed with Latin American countries in mind it is relevant in most respects to FSU states with separate currencies.

2 The model can be depicted by the following set of equations:

$$\pi_t = \alpha\pi_{Tt} + (1-\alpha)\,\pi_{Nt} \qquad (1)$$

$$\pi_{Tt} = E_{t-1}(d_t + \pi^*_t) \qquad (2)$$

$$d_t = \varnothing(\pi_{t-1} - \pi^*_{t-1}) \qquad (3)$$

$$N^D(P_N/P_T, \delta z_t) = N^S(W/P_N) \qquad (4)$$

$$w_t = \gamma\pi_{t-1} + (1-\gamma)\pi^e_t \qquad (5)$$

where the following notation has been used:

π_t = rate of change of the domestic price level;

π_{Tt} = rate of change of the price of tradables in domestic currency in period t;

π_{Nt} = rate of change of non-tradable prices in period t;

d_t = rate of devaluation in period t;

π^*_t = rate of world inflation in period t;

E_{t-1} = expectations operator, where expectations are assumed to be formed in period t-1;

w = rate of change in nominal wages;

z_t = index of aggregate macro-economic policies, which includes monetary expansion beyond passive accommodation of past inflation;

N^D, N^S = demand and supply for non-tradables;

S = the demand elasticity with respect to Z

$\varnothing, \gamma$ = parameters that measure the degree of indexation in this economy.

3 Equation (1) says that domestic inflation is a weighted average of tradables and non-tradables inflation. Equation (2) equates tradables inflation with the expected rate of depreciation plus the expected rate of world inflation. The exchange rate rule is given by equation (3); with $\varnothing = 1$

lagged inflation differentials are fully reflected in the change in the exchange rate and purchasing power parity is maintained. Equation (4) is the equilibrium condition for the non-tradables sector. Nominal wage inflation is given by equation (5), where the coefficient γ gives the degree of indexation, a high value indicating that wage inflation is strongly backward looking.

4 Assuming that price expectations are rational, so that $\pi_t^c = \pi_t + \mu_t$ where μ is a random term, gives the follow first order difference equation:

$$\pi_t = a_1\pi_{t-1} + a_2\overset{*}{\pi}_{t-1} + a_3 z_t + \mu'_t \qquad (6)$$

where:

$$a_1 = \frac{(\eta + \alpha\in)\phi + \in(1-\alpha)\gamma}{(\eta + \in\alpha) + \in(1-\alpha)\gamma} \qquad (7)$$

$$a_2 = \frac{(\eta + \alpha\in)(1-\phi)}{(\eta + \in\alpha) + \in(1-\alpha)\gamma} \qquad (8)$$

$$a_3 = \frac{(1-\alpha)}{(\eta + \in\alpha) + \in(1-\alpha)\gamma} \qquad (9)$$

5 The demand elasticity of non-tradables with respect to relative prices is denoted by η, and $\in$ is the supply elasticity with respect to real wages. In equation (6), coefficient a_1 is a measure of the degree of inertia of domestic inflation, the closer it is to unity the greater the degree of inflation persistence. As expected, inertia increases with the indexation parameters ϕ and γ, ie as the nominal exchange rate approaches full purchasing power indexation both ϕ and a_1 become unity, so domestic inflation becomes

anchorless with no equilibrium. In time series language it is non-stationary and has a unit root. With a_1 less than unity inflation converges to that in the rest of the world, with the speed depending on the wage indexation parameter γ. A reduction in ϕ reduces a_1, and with it the degree of inflation inertia. (This is of course one of the principle reasons for trying to establish a fixed nominal exchange rate, although if ϕ does not in fact decline, for example due to a lack of credibility, there will be no reduction in a_1).

6 An important real world case is one where the exchange rate is credibly fixed, $\phi = 0$, but wage indexation persists, $\gamma > 0$. Inflation inertia remains, and as long as convergence is incomplete the real exchange rate appreciates. So a policy of pegging the exchange rate both reduces inertia and loses international competitiveness. However if $\gamma = 0$ so that wage inflation is entirely forward looking, then domestic inflation converges to the world inflation rate immediately, and no loss of competitiveness occurs. If nominal wages are only backward looking, ie $w_t = \gamma\pi_{t-1}$, $\gamma \leq 1$, a_1 is again less than unity, so inflation follows a stationary process, ie it converges to the world rate.

7 Two other features of the model are worth noting. Firstly, a lower value of ϕ raises a_2, and so increases the feed-through of a change in world inflation on domestic inflation. But it also reduces the degree of inflation inertia through its affect on a_1, as already discussed. The two effects work in opposing directions, low values of ϕ increase the responsiveness to world inflation shocks but reduce the degree to which that effect persists. For those countries with high inflation relative to the rest of the world and where inflation shocks are domestic in origin, this suggests that the best policy for disinflation is one which reduces domestic inflation inertia by pegging the exchange rate. Secondly, the more responsive is domestic inflation to demand pressures captured by z_t the higher is the elasticity a_3 and the greater will be the impact effect on π_t.

8 In this model credibility effects are incorporated indirectly via the coefficients ϕ and γ. If a government announces that the nominal exchange rate is to be fixed, then whether or not this actually occurs and ϕ actually

becomes zero depends on the central bank's willingness to defend the parity, either through interest rate changes or by intervention. Similarly, a credible change in policy may reduce the backwards indexation, ie reduce γ. These considerations imply that, given appropriate time series data, the efficiency of policy announcements can be examined by testing the stability of inflation equations before and after the policy announcement. Results for some Latin American countries are revealing, see Edwards (1992), but as yet no comparable studies have been conducted with East European or FSU data.

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