



V

Monetary and Financial Sector Policies in Transition Countries

This chapter discusses recent developments in monetary and financial sector policies in the countries in transition, with a focus on the evolving challenges faced by their monetary authorities. The progress that has been made toward macroeconomic stabilization in most countries in transition has changed the short-term objectives and role of monetary policy and has, at the same time, laid the foundation for the resumption and maintenance of growth. By the middle of 1997, the 12-month rate of inflation was in the single digits in 11 out of 27 transition economies, and above 25 percent in only 8 of them; the trend decline in inflation is expected to continue in the period ahead, assuming the continued implementation of disciplined policies.¹¹⁷ With generally good progress toward stabilization following the initial challenges of high inflation, the focus of monetary policy has shifted to the need to maintain gradual progress toward the low single-digit inflation rates seen in the advanced economies. However, financial crises in Albania, Bulgaria, and Romania in the past year have demonstrated that macroeconomic stability is still fragile and can easily be reversed, while exchange market pressures in the Czech and Slovak Republics and in Poland illustrate again how external considerations may impose constraints on monetary policy.

Monetary authorities in the countries in transition face challenges not only in formulating monetary policy but also in establishing the framework of instruments and institutions through which monetary policy can be effectively implemented in a market economy. Furthermore, they face the challenge of fostering the establishment of sound financial systems that meet the needs of a market economy after decades of state monopoly banking.

Following an overview of the recent conduct of monetary policy, this chapter discusses what further progress is needed in two key areas of structural reform: the introduction of market-based monetary policy instruments and the development of sound banking systems. The chapter then reviews a number of additional challenges that reflect a combination of macroeconomic and structural issues and analyzes the choice

of nominal anchor and the appropriate pace of further reductions in inflation. Throughout the chapter, recent country experiences are reviewed to illustrate how the role of monetary policy is evolving as stabilization is achieved and financial sector reform proceeds.

Recent Conduct of Monetary Policy

During 1996 and the first half of 1997, the countries more advanced in transition continued broadly to pursue relatively tight monetary policies, and they were generally successful in further reducing inflation. At the same time, significant differences in individual country experiences were evident, related partly to differences in exchange rate regimes and monetary policy instruments and targets. After more accommodative policies earlier in the year, monetary authorities in the Slovak Republic tightened the monetary stance in the second half of 1996 in the face of a deteriorating external balance. In the Czech Republic, monetary policies were tightened in June 1996, in response to concerns about a worsening of the trade balance and the lack of progress in reducing inflation below the 8–10 percent range. More recently, monetary authorities in the Czech and Slovak Republics have sought to defend the external value of their currencies in the face of exchange market pressures; in the Czech case, as seen in Chapter II, these pressures led to a change in the exchange rate regime. Monetary policy developments in 1996 and the first half of 1997 were smoother in Croatia, Hungary, Latvia, and Slovenia, as authorities maintained generally tight policy stances, while gradually reducing interest rates broadly in line with inflation and attempting to offset the monetary impact of capital inflows. In Croatia and Hungary, the inflows were partly sterilized, while in Slovenia more emphasis was placed on reserve requirements and regulations on foreign exchange deposits as means of control. Estonia and Lithuania continued to rely on currency board arrangements, thus refraining from active monetary policy (see Tables 20–22 and Figure 30).

In countries less advanced in transition, strict financial policies were maintained in Russia, and also in Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, and Ukraine, resulting in impressive declines in inflation from early 1996 on, with the average 12-month inflation rate in this group

¹¹⁷The inflation numbers for Bosnia and Herzegovina are based upon data for the federation.

Table 20. Countries in Transition: Exchange Rate Regime and Monetary Policy Instruments, August 1997

Exchange Rate Regime	Focus of Exchange Rate Policy	Monetary Framework	Monetary Policy Instruments
Currency board			
Bosnia and Herzegovina	Deutsche mark	Currency board	Reserve and liquidity requirements
Bulgaria	Deutsche mark	Currency board	Reserve requirements
Estonia	Deutsche mark	Currency board	Certificates of deposit (CDs)
Lithuania	Dollar	Currency board	Uniform reserve requirement
Targeted exchange rate			
Croatia	De facto target band vis-à-vis deutsche mark	Exchange rate target	Central bank bill auctions
Hungary	Crawling band vis-à-vis dollar—deutsche mark basket, $\pm 2.25\%$	Exchange rate target	Repurchase, open market operations
Latvia	Peg to SDR	Exchange rate target	Exchange rate window
Macedonia, former Yugoslav Rep. of	De facto peg to deutsche mark	Exchange rate target	Reserve requirements, credit ceilings, central bank deposit auctions
Poland	Crawling band vis-à-vis currency basket, $\pm 7\%$	Exchange rate target, monitoring of credit expansion and money growth	Repurchase, open market operations, reserve requirements
Russia	Crawling band vis-à-vis dollar, $\pm 5\%$	Exchange rate target	Credit and deposit auctions, primary and secondary treasury bill markets
Slovak Republic	Target band vis-à-vis dollar—deutsche mark basket, $\pm 7\%$	Exchange rate target	Repurchase operations, reserve requirements, suasion
Ukraine	Target band of 1.7 to 1.9 hryvnia vis-à-vis the dollar	Exchange rate target	Credit auctions, repurchase operations, foreign exchange sales
Managed floating rate			
Belarus	Ad hoc pegs to various currencies	Monitoring inflation and exchange rates	Credit auctions, treasury bill market
Czech Republic	Ad hoc intervention to limit fluctuations against the deutsche mark	Money growth target	Open market operations, reserve requirements
Georgia	Broad stability vis-à-vis dollar	Monitoring of credit growth	Credit to government, credit auctions, foreign exchange sales
Kyrgyz Republic	Ad hoc peg to the dollar	Monitoring of money growth	Treasury bill auctions, foreign exchange auctions
Slovenia	Ad hoc intervention	Reserve money target	Repurchase operations, window financing, central bank bills, foreign exchange operations
Turkmenistan	Multiple rates	Liquidity targets	Credit auctions
Uzbekistan	Multiple rates	Monitoring of money growth	Credit and CD auctions
Floating rate			
Albania	...	Money growth target	Reserve and liquidity requirements, treasury bill auctions
Armenia	...	Money growth target	Credit and deposit auctions, repos and reverse repos
Azerbaijan	...	Money growth target	Credit auctions, directed credits, foreign exchange sales
Kazakhstan	...	Reserve money target	Open market operations, foreign exchange sales
Moldova	...	Reserve money target	Credit auctions, small treasury operations
Mongolia	...	Real interest rate target	Credit auctions
Romania	...	Money growth target	Credit auctions
Tajikistan	...	Bank credit ceilings	No market-based instruments

Table 21. Countries in Transition: Annual Growth Rates of Broad Money and of Domestic Credit*(In percent)*

	1991	1992	1993	1994	1995	1996
Growth rate of broad money¹						
Albania	51.8	43.8
Armenia	...	74.9	2,302.7	684.2	68.7	35.1
Azerbaijan	...	266.0	821.4	1,114.1	24.0	18.9
Belarus	...	508.2	928.3	1,936.7	167.0	52.4
Bulgaria	...	50.4	53.5	77.9	39.6	124.3
Croatia	74.9	39.3	49.1
Czech Republic	19.9	19.8	9.2
Estonia	...	68.0	57.8	29.6	31.3	36.8
Georgia	...	428.0	4,319.0	2,229.5	146.5	41.9
Hungary	29.4	27.3	16.8	13.0	18.5	20.9
Kazakhstan	...	497.0	843.6	615.3	71.3	13.8
Kyrgyz Republic	...	428.4	179.7	119.2	75.8	23.2
Latvia	84.2	49.1	-24.0	19.9
Lithuania	99.0	64.8	29.8	-1.8
Macedonia, former Yugoslav Rep. of	560.8	31.9	0.3	0.5
Moldova	...	366.0	311.3	115.6	65.2	15.3
Mongolia	...	61.0	192.1	81.0	30.5	33.0
Poland	37.0	57.4	35.9	38.3	34.7	29.3
Romania	101.2	79.6	141.0	138.1	71.6	66.0
Russia	...	779.9	317.6	200.7	102.8	33.6
Slovak Republic	17.4	18.4	16.2
Slovenia	...	123.6	62.0	43.9	29.3	21.3
Tajikistan	...	513.8	1,587.4	156.3	616.4	142.6
Turkmenistan	...	1,110.0	792.6	1,156.7	375.2	225.5
Ukraine	...	858.9	1,778.1	573.0	117.4	35.1
Uzbekistan	784.7	680.4	158.1	100.1
Growth rate of domestic credit²						
Albania	-9.6	47.9
Armenia	...	266.0	733.5	1,549.1	68.3	30.1
Azerbaijan	...	1,011.4	455.4	841.0	110.9	16.7
Belarus	578.3	2,143.0	164.4	59.1
Bulgaria	...	52.5	61.3	47.3	16.0	217.5
Croatia	8.6	12.5	1.0
Czech Republic	16.8	13.2	10.6
Estonia	...	22.1	71.6	39.8	63.1	98.2
Georgia	...	509.6	1,927.2	3,208.3	84.7	59.5
Hungary	8.0	10.3	16.8	15.2	-0.8	27.6
Kazakhstan	...	1,500.4	547.7	755.5	-22.5	-12.4
Kyrgyz Republic	...	760.1	595.2	36.9	58.9	18.3
Latvia	145.8	68.3	-26.0	-3.4
Lithuania	26.1	2.8
Macedonia, former Yugoslav Rep. of	67.5	-22.3	3.9
Moldova	...	570.1	333.8	116.5	55.9	18.5
Mongolia	...	60.2	51.9	79.0	-26.1	89.7
Poland	158.7	55.6	44.2	30.1	20.1	29.7
Romania	101.1	39.0	122.6	115.8	85.4	84.7
Russia	...	747.7	501.6	297.6	77.3	44.1
Slovak Republic	18.5	21.2	15.7
Slovenia	...	80.0	108.0	21.9	37.2	11.2
Tajikistan	...	1,241.4	1,068.0	125.1	484.8	208.5
Turkmenistan	...	782.7	1,812.7	1,066.5	385.9	1,541.8
Ukraine	...	1,566.7	1,133.2	583.2	166.0	38.0
Uzbekistan	...	1.4	854.4	239.0	58.2	252.8

¹Broad money (currency outside banks, demand deposits, and time and savings deposits) including foreign currency deposits.

²Domestic credit comprises banking sector claims on the domestic public and private nonbank sectors.

of eight countries falling from around 41 percent in June 1996 to less than 15 percent in June 1997. In Russia, the monetary tightening initiated in 1995 was maintained throughout 1996 and early 1997; against

the background of a general decline in inflation and interest rates, the Central Bank of Russia reduced its re-finance rate from 80 percent a year (noncompounded basis) in September 1996 to 24 percent in June

Table 22. Countries in Transition: Real Interest Rates¹*(In percent a month)*

	1992	1993	1994	1995	1996
Albania	-4.3	1.1	1.61	1.61	0.5
Armenia	...	-8.2	14.4	19.9	5.4
Azerbaijan	...	-12.2	-6.8	9.4	2.9
Belarus	...	-13.8	-4.6	4.1	1.5
Bulgaria	-0.6	-0.2	-0.7	1.8	-0.9
Croatia	0.7	0.4	0.4
Czech Republic	...	-0.5	-0.1	0.1	0.2
Estonia	...	-1.8	-1.9	-1.4	-0.4
Georgia ²	2.7
Hungary	0.1	0.2	0.4	0.3	0.7
Kazakhstan	3.6	2.5	1.1
Kyrgyz Republic	2.7	1.6
Latvia	...	2.9	0.3	0.4	0.3
Lithuania	...	1.4	2.8	-0.2	0.9
Macedonia, former Yugoslav Rep. of	5.5	1.0	0.9
Moldova	1.1	0.7
Mongolia	10.2	5.8
Poland	-0.1	-0.2	0.2	0.7	0.5
Romania	1.6	1.5	-0.5
Russia	...	-5.0	5.4	8.0	6.8
Slovak Republic	...	-0.8	0.1	0.3	0.1
Slovenia	-0.1	0.3	0.1
Tajikistan	-2.8	16.2
Turkmenistan	-10.5	-1.4
Ukraine	...	-13.2	8.8	1.8	2.3
Uzbekistan	...	-10.7	-5.7	13.4	5.0

¹Computed as the 12-month average of $[(1+r)/(1+\pi) - 1] \times 100$ where r is the central bank interest rate on a monthly basis (± 100) and π is the percent change of the consumer price index in the same month from the preceding month. This is approximately equal to the difference between the interest rate and the inflation rate, for small r and π .

²Based on the interbank credit auction rate.

1997.¹¹⁸ In 1996, Ukraine implemented tight monetary policies for the first time since the beginning of the transition, as the authorities sought to create a stable financial environment for the successful introduction of the country's permanent currency, the hryvnia, which was launched in September 1996. More recently, however, the National Bank of Ukraine has successfully resisted increasing pressures to loosen monetary policy and extend additional credit to agriculture and industry. Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, and Moldova continued to restrain monetary growth, with occasional slippages.¹¹⁹

In a number of other countries less advanced in transition, monetary policies were relaxed or remained

¹¹⁸Russia also introduced a change in its exchange rate policy: the fixed (and adjustable every six months) fluctuation band of the ruble vis-à-vis the U.S. dollar was replaced in the middle of 1996 by a crawling band with a preannounced rate of crawl, a 4 percent depreciation being set for 1997.

¹¹⁹In the Kyrgyz Republic, for instance, money growth suddenly increased in the fourth quarter of 1996 as the government used its deposits with the central bank to pay budget arrears.

Figure 30. Selected Countries in Transition: Inflation

In countries more advanced in transition, inflation has come down steadily. In those less advanced in transition, inflation has been reduced in the countries that have maintained tight financial policies.

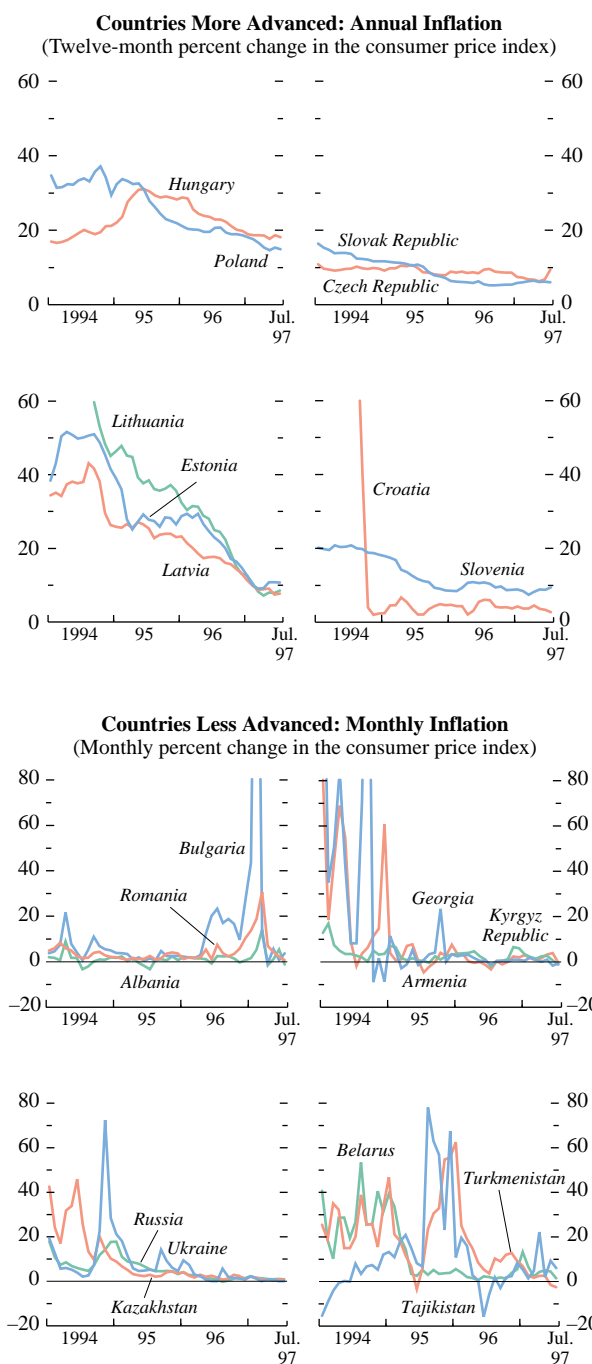


Table 23. Countries in Transition: Income Velocity of Broad Money¹

	1991	1992	1993	1994	1995	1996
Albania	1.4	1.8	2.5	2.7	2.1	2.1
Armenia	...	2.9	3.7	10.4	15.5	14.3
Azerbaijan	...	4.5	3.6	5.7	9.1	10.8
Belarus	...	5.1	5.5	6.2	8.5	7.7
Bulgaria	...	1.4	1.3	1.2	1.5	2.4
Croatia	...	2.9	3.9	4.5	3.9	2.8
Czech Republic	...	...	1.4	1.3	1.3	1.3
Estonia	...	4.0	4.7	4.3	4.5	4.0
Georgia	...	2.7	15.5	32.8	39.2	26.0
Hungary	2.1	1.9	2.0	2.2	2.4	2.3
Kazakhstan	...	4.9	4.6	7.9	11.3	11.8
Kyrgyz Republic	...	5.7	9.5	10.1	7.2	7.3
Latvia	...	5.6	4.0	3.5	3.8	4.9
Lithuania	...	4.8	6.4	6.1	6.1	7.6
Macedonia, former Yugoslav Rep. of ²	4.1	5.6	5.3	7.9	7.9	7.2
Moldova	...	4.4	10.2	9.6	7.8	6.5
Mongolia	1.8	2.9	3.9	3.7	4.2	5.2
Poland	3.1	2.8	2.8	2.7	2.8	2.7
Romania	2.1	3.3	4.5	4.7	4.0	5.1
Russia	...	3.6	5.6	7.4	11.2	10.5
Slovak Republic	...	...	1.5	1.5	1.5	1.4
Slovenia	2.9	3.8	3.3	3.0	2.8	2.6
Tajikistan	...	3.5	2.4	2.2	10.3	15.6
Turkmenistan	...	5.6	6.0	11.5	14.6	15.7
Ukraine	...	4.1	6.3	6.7	9.4	10.6
Uzbekistan	...	...	3.7	5.8	5.7	5.1
<i>Memorandum</i>						
Germany	1.8	1.8	1.7	1.6	1.7	1.6
Japan	0.9	0.9	0.9	0.9	0.9	0.9
United States	1.5	1.6	1.7	1.7	1.8	1.7

¹Velocity is the ratio of annual nominal GDP to the average of end-of-quarter broad money stocks, including foreign currency deposits.

²Computed on the basis of nongovernment broad money.

loose. In Albania, Bulgaria, and Romania, the relaxation of monetary policies from late 1995 contributed to growing financial imbalances that culminated in the crises of early 1997. In Albania, a main impetus to increased monetary growth was the financing of the fiscal deficit. Accelerating official credits to banks fueled monetary expansion in Bulgaria, while agricultural credit refinancing and lending to enterprises in poor financial condition led to loose monetary policy in Romania; as monetary policies in these two countries were relaxed, central bank interest rates in real terms turned negative. In Mongolia, monetary developments in 1996 were dominated by excessive central bank credit expansion to a weakening banking sector and also to the government to finance a higher fiscal deficit; monetary policy was tightened in the spring of 1997, following the initiation of a bank-restructuring program. Some initial progress toward stabilization in Uzbekistan was reversed as the central bank started to extend large credits to the agricultural sector in mid-1996. Belarus and Turkmenistan have not yet introduced comprehensive stabilization programs and have continued to extend directed credits at below-market rates.

Table 24. Countries in Transition: Money Multipliers¹

	1991	1992	1993	1994	1995	1996
Armenia	...	1.8	1.9	1.6	1.4	1.4
Azerbaijan	...	3.1	2.0	3.2	1.4	1.4
Belarus	...	...	...	3.8	2.6	2.3
Bulgaria	3.4	3.3	4.2	4.8	4.5	5.3
Croatia	...	...	4.5	3.7	3.6	4.2
Czech Republic	...	...	4.2	3.8	2.6	3.1
Estonia	3.2	2.1	1.6	1.9	2.0	2.3
Georgia	...	...	...	1.9	1.2	1.2
Hungary	1.5	1.7	1.7	1.7	1.6	1.7
Kazakhstan	5.9	3.4	2.1	2.1	1.8	1.7
Kyrgyz Republic	...	...	1.3	1.4	1.3	1.3
Latvia	...	...	2.1	2.6	2.0	1.9
Lithuania	...	...	...	2.4	2.3	2.2
Macedonia, former Yugoslav Rep. of ²	...	2.1	4.0	3.2	3.6	3.2
Moldova	2.4	1.7	1.4	1.4	1.6	1.7
Mongolia	5.0	3.1	3.4	3.0	3.0	3.0
Poland	2.6	3.0	3.5	3.9	3.7	3.9
Romania	2.6	3.1	3.5	3.3	3.9	3.9
Russia	...	...	2.7	2.8	2.6	2.3
Slovak Republic	...	...	6.4	6.1	4.6	4.9
Slovenia	7.5	7.2	8.4	7.7	8.0	8.4
Tajikistan	...	...	...	...	1.1	1.4
Turkmenistan	...	...	1.7	1.6	1.6	1.1
Ukraine	...	1.4	1.6	2.1	1.9	1.9
Uzbekistan	...	...	...	1.8	1.4	1.5

¹Ratio of broad money, including foreign currency deposits, to reserve money.

²Computed on the basis of nongovernment broad money.

While moderate, and even single-digit, year-on-year rates of inflation have been achieved or are within reach in almost all countries in transition, the consequences of the high inflation during the period preceding stabilization are still being felt. The intensity and duration of the inflation process during this period led to substantial demonetization and erosion of banking sector intermediation. In the Czech and Slovak Republics, countries that were able to avoid protracted high inflation, the income velocity of broad money did not increase above 2, a level close to that in the advanced economies, and the share of cash and foreign currency deposits in broad money remained below 20 percent. In hyperinflation-stricken Armenia and Georgia, in contrast, velocity surged to more than 15 and domestic currency cash and foreign currency deposits peaked at 80–85 percent of broad money holdings in 1994–95. The legacy of high inflation during the period before stabilization continues to have an important influence on the financial environment and to affect monetary policies today (see Tables 23 and 24). For example, despite the sharp reductions in inflation in the Baltics, Russia, and the other countries of the former Soviet Union, their average velocity in 1996 still exceeded 10, their money multipliers were low, and in the middle of 1997 the share of cash and foreign currency deposits in broad money was still around

70 percent. The low degree of intermediation in many countries in transition significantly affects the conduct of monetary policy, as the banking system is the primary transmission channel for monetary policy. At the same time, low intermediation reduces the opportunities for growth, since a fully operative banking system improves risk sharing, and thereby promotes efficient resource allocation and stimulates investment.¹²⁰

Development of Market-Based Instruments for Monetary Policy

The transition countries inherited only rudimentary tools of monetary control from the system of central planning, where directed credits were the main financial instrument. As part of the transformation strategy, these countries have started to introduce new monetary policy instruments, with the broad aim of developing a range of market-oriented or indirect means of monetary control. Speedy adoption of indirect instruments has, however, been hindered by inadequate financial market infrastructure, banking sector weaknesses, lack of enterprise reform, and until recently, general macroeconomic instability. In these circumstances, authorities had to choose the pace and sequencing of monetary reform, in the broader context of banking and enterprise reform and stabilization.

The adoption of indirect instruments of monetary policy is an appropriate objective for countries in transition, as it is more generally for countries that lack them.¹²¹ Indirect instruments, such as refinance and discount facilities, open market operations, and reserve requirements are used to influence overall monetary and credit conditions by affecting the supply and demand for liquidity, working through markets and the general level of interest rates. In contrast, direct instruments such as directed credits, credit ceilings, and interest rate controls regulate the price or the quantity of credit, substituting for market forces in the allocation of financial resources. The appeal of direct instruments, including in advanced economies, has generally been that they appear to offer monetary control without unwelcome increases in interest rates. Experience has shown, however, that direct instruments foster less efficient financial intermediation and are prone to abuse, since they typically depend on discretionary power. Moreover, such instruments can be circumvented and over time lose their effectiveness,

partly through disintermediation—the emergence of new channels of credit outside the regulated banking and financial system.

Given the initial absence in the transition countries of market-oriented financial institutions and the unstable macroeconomic environment, the objective of indirect monetary control could only be attained gradually and progress has varied considerably. Most central and eastern European countries and the Baltics, which quickly adopted tight monetary policies following the breakdown of central planning, began to introduce market-oriented instruments early in the transition; these countries typically also made progress early on in other areas of market reform. In countries less advanced in transition, progress toward the introduction of indirect instruments has been slower and more piecemeal, but this has not necessarily been an impediment to bringing down inflation rates into the moderate range. Albania, the Kyrgyz Republic, and Moldova, for example, adopted tight monetary policies early on in the transition, even though the move toward indirect monetary control and broader market reforms had not progressed far. But while the lack of indirect monetary instruments did not prevent the elimination of very high inflation, the costs of using direct instruments were presumably higher.

The countries more advanced in transition had almost entirely switched to market-oriented instruments by the end of 1994.¹²² Efforts in more recent years have been aimed at the need to strengthen money markets, foster secondary markets in government securities, improve the interbank settlement system, and refine open market operations. In Poland, for example, the development of the interbank market has enabled the national bank to use open market operations as the main instrument of monetary policy. Further progress toward financial market development and indirect monetary control in these countries will depend upon a number of considerations. These include exchange rate arrangements. Currency board arrangements in Estonia and Lithuania restrict the active use of market-oriented instruments; these arrangements allow a uniform reserve requirement, while other instruments can be used and central bank credit can be extended to banks only to the extent that foreign exchange reserves exceed the backing required for base money (see Box 5 in Chapter IV). Policies to defend the exchange rate may slow down the further development of financial markets. In the Czech and Slovak Republics, for example, money market liquidity has been sharply cut by the authorities in recent months in response to exchange rate pressures. While money market conditions

¹²⁰For an overview of how financial sector development can be important for growth, see Ross Levine, “Financial Functions, Institutions, and Growth,” in *Sequencing? Financial Strategies for Developing Countries*, ed. by Alison Harwood and Bruce Smith (Washington: Brookings Institution, 1997), pp. 17–31.

¹²¹See William E. Alexander, Tomás J.T. Baliño, and Charles Enoch, *The Adoption of Indirect Instruments of Monetary Policy*, IMF Occasional Paper No. 126 (1995).

¹²²Progress toward indirect monetary control is extensively documented and analyzed in Martha de Melo and Cevdet Denizler, “Monetary Policy During Transition: An Overview,” World Bank Policy Research Working Paper No. 1706 (Washington: World Bank, January 1997).

Table 25. Russia and the Other Countries of the Former Soviet Union: Rankings of Progress with Establishment of Market-Based Monetary Operations and Government Securities Markets¹

	I Limited Progress	II Moderate Progress	III Substantial Progress
Central bank facilities			
Standing (Lombard, refinance, overdraft) and discretionary (open market operations, credit and deposit auctions)	Belarus Georgia Tajikistan Turkmenistan Uzbekistan	Armenia Azerbaijan Moldova Ukraine	Kazakhstan Kyrgyz Republic Russia
Operating framework			
Use of short-term liquidity forecasting and availability of a domestic debt forecasting program such as treasury bill auction calendar	Georgia Tajikistan Turkmenistan Uzbekistan	Armenia Azerbaijan Kazakhstan Moldova Ukraine	Belarus Kyrgyz Republic Russia
Market development			
Interbank money market and secondary market for government securities	Armenia Azerbaijan Georgia Moldova Tajikistan Turkmenistan Uzbekistan	Belarus Kyrgyz Republic Ukraine	Kazakhstan Russia
Overall ranking			
	Georgia Tajikistan Turkmenistan Uzbekistan	Armenia Azerbaijan Belarus Moldova Ukraine	Kazakhstan Kyrgyz Republic Russia

Source: "Status of Market-Based Central Banking Reforms in the Baltics, Russia, and the Other Countries of the Former Soviet Union" (IMF, forthcoming). The rankings refer to an IMF staff assessment of the progress made by each country in the relevant area over the period from the beginning of 1992 until mid-1997. Because of the diversity of country conditions and the complexity and complementarity of reforms, these rankings, while a convenient reference, can provide only an approximate indication of progress made.

¹Within each ranking, countries are listed alphabetically.

are easing again in the Czech Republic following the floating of the exchange rate in late May, they remain very tight in the Slovak Republic.

Recently adopted stabilization programs in Bulgaria and Romania, supported by IMF financing, seek to eliminate remaining non-market-based instruments of monetary policy. In Bulgaria, the move to indirect instruments was largely completed by the end of 1994, but financially distressed banks ended up in chronic violation of reserve requirements, and from late 1995 on, this situation led the Bulgarian National Bank to extend increasing amounts of unsecured refinance credit. In preparation for the currency board arrangement adopted at the beginning of July, active monetary policies were abandoned altogether, and open market operations that supported these policies have been phased out. Romania has lagged behind other central and eastern European countries in monetary policy reform. Until the introduction of the stabilization program this year, the National Bank of Romania advanced directed credits to state-owned banks at below-market interest rates, did not conduct open market operations, and did not have instruments for ab-

sorbing liquidity. Directed credits accounted for some 70–90 percent of total central bank credit in recent years and, following the increase in inflation in the second half of 1996, real interest rates on such credits turned negative. The National Bank of Romania is now committed to ending the provision of directed credits and to allocating credit primarily through auctions at market-determined interest rates.

Russia and most other countries of the former Soviet Union have made substantial progress in moving toward indirect monetary control, although much remains to be done to bring monetary operations to modern standards.¹²³ Among these countries, Kazakhstan and Russia have advanced most in developing financial

¹²³For a description of monetary policy instruments in the Baltics, Russia, and the other countries of the former Soviet Union at the end of 1995, see Lorena Zamalloa, "Monetary Operations, Money Markets, and Public Debt Management," in *Central Bank Reform in the Transition Economies*, ed. by V. Sundararajan, Arne Petersen, and Gabriel Sensenbrenner (Washington: IMF, 1997), pp. 62–98; see also "Status of Market-Based Central Banking Reforms in the Baltics, Russia, and the Other Countries of the Former Soviet Union" (IMF, forthcoming).

markets and introducing indirect monetary policy instruments. Interbank money markets and both the primary and secondary treasury bill markets are active and liquid, and open market operations are the main instrument. The Central Bank of Russia has recently further improved its ability to influence monetary conditions through measures such as the introduction of a Lombard facility, a repurchase facility, and a primary dealer system for government securities.¹²⁴ In other countries, monetary control is primarily exercised through reserve requirements, refinance facilities that are mainly market-based and, to a limited extent, auctions of treasury bills or central bank debt instruments. Only Belarus, Tajikistan, and Turkmenistan continue to rely mainly on direct instruments, including directed credits. Most countries have established interbank money markets; these operate freely but their role in redistributing bank liquidity is still limited (see Table 25).

Development of Efficient Banking Systems

The countries in transition inherited financial systems composed of a central bank and a number of functionally specialized state-owned banks. As these countries embarked on market reforms, the specialized banks were commercialized and assigned new tasks, while in many countries a number of new private banks emerged. But transforming the old institutions and allowing new entry were not enough to establish efficient banking systems based on market principles. In addition, practically the entire institutional and operational framework required to enable commercial banks to function effectively under market conditions had to be created; shortcomings in legislation, prudential norms, and accounting frameworks, and the general lack of adequate supervisory capacity were particularly acute. Moreover, both old and new banks often accumulated significant amounts of nonperforming loans and did not strengthen their banking skills in the early years of the transformation. In many cases, the former specialized banks acted as the main channel in

a subsidy chain from government to loss-making enterprises by extending unrecoverable loans at below-market interest rates, while many new private banks engaged in aggressive lending to enterprises with which they were associated through ownership or other ties. High real interest rates in the immediate aftermath of successful stabilizations exacerbated banks' stock (outstanding bad loans) and flow (operational inefficiencies) problems.

The absence of a well-functioning, market-based banking system and the persistence of prudential problems have necessarily complicated the conduct of monetary policy.¹²⁵ Weaknesses in the banking system distort the transmission mechanism of monetary policy because banks that are less able to control their balance sheets will be less responsive to changes in reserve money or interest rates. Moreover, banking problems may lead to pressure on the central bank to extend credit to bail out ailing banks, reduce the scope for tightening liquidity and credit conditions and raising interest rates, and thereby undermine monetary control. Recent episodes of banking sector problems in transition countries illustrate how such difficulties can affect the conduct of monetary policy (see Box 7). In addition, bad loan problems distort credit allocation and thereby impede structural adjustment, as well-run banks try to protect their assets by shifting their portfolios toward holdings of less risky government securities and by widening spreads. In countries such as Kazakhstan, the Kyrgyz Republic, and Lithuania, the share of credit to the public sector in total bank credit rose around threefold in the wake of banking sector problems. While spreads between domestic bank lending and deposit rates in the countries more advanced in transition are now below 10 percentage points a year, they remain in the 20–50 percentage point range in countries less advanced in transition that still face systemic bank weaknesses (see Table 26). Finally, dealing with problem banks usually entails significant government financial assistance, which has fiscal and therefore broader macroeconomic implications.¹²⁶ At the same time, fiscal policy is likely to need to compensate if monetary policy is incapacitated by banking sector problems from playing its role in stabilizing demand.

Banking sector weaknesses may also complicate the introduction of indirect instruments of monetary policy. In the presence of insolvent banks, introducing a credit auction or similar market-based facilities may

¹²⁴The “Lombard facility,” introduced in April 1996, allows the central bank to provide refinance credit on a continuous basis for banks in good standing vis-à-vis prudential requirements, subject to a weekly aggregate limit. In addition, since October 1996, the central bank has offered two-day repurchase agreements (repos) with primary dealers in the government securities market. Finally, there is also an end-of-day overnight settlement facility for selected banks (at 1.3 times the refinance rate) to ensure the smooth functioning of the payments system. These instruments supplement open market operations in government securities and foreign exchange market intervention as means whereby the central bank can add liquidity to the banking system. The central bank has the capacity to remove liquidity from the system via open market operations and through deposit auctions. It also plans to introduce reverse repos with primary dealers as a means of withdrawing liquidity from the banking system.

¹²⁵For a general discussion of these issues see Carl-Johan Lindgren, Gillian Garcia, and Matthew Saal, *Bank Soundness and Macroeconomic Policy* (Washington: IMF, 1996).

¹²⁶For example, in Hungary, the government issued debt equivalent to about 9 percent of GDP to recapitalize the state banking system, while the fiscal cost of bank-restructuring schemes in the Slovak Republic is estimated to exceed 10 percent of GDP. On these issues, see James A. Daniel, “Fiscal Aspects of Bank Restructuring,” IMF Working Paper 97/52 (April 1997).

Box 7. Financial Sector Problems and Monetary Policy in Countries in Transition

In recent years, countries in transition have been confronted with a range of financial sector problems, which have had important implications for the conduct of monetary policy. This may be illustrated by an overview of selected country experiences during the past three years. The intensity of the financial sector problems experienced has varied quite widely. In a number of countries, problems have been concentrated in individual institutions with no significant repercussions for the wider financial system and monetary policy. Russia, other countries of the former Soviet Union (excluding the Baltic countries), and Mongolia have been facing systemic banking sector weaknesses that have constrained monetary policy, but these countries have avoided large-scale banking crises. In the Baltics, however, bank failures did develop into full-scale banking crises and strongly affected the conduct of monetary policy. In southeastern Europe, financial sector problems were a key element of widespread macroeconomic instability that developed in 1996 and peaked in early 1997 in Bulgaria and Romania, and also exacerbated the economic and financial breakdown in Albania in early 1997.

Countries that have been able to avoid contagion effects within their financial systems include the Czech Republic, Estonia, Hungary, and the former Yugoslav Republic of Macedonia. In the summer of 1996, banking problems emerged in the Czech Republic in connection with the failure of a small bank and spillover effects on a medium-sized bank. The two banks, together with some other small banks, were put under temporary forced administration by the national bank, which also arranged for liquidity credits. The problems led the national bank to introduce a comprehensive consolidation program for small banks. The country's four major banks were unaffected. In March 1995, Estonia's second largest bank, which accounted for 15 percent of total banking system assets at the end of 1993, was closed following protracted liquidity and solvency problems. None of the bank's liquidity problems spread through the payments system or the interbank money market. The conduct of monetary policy was not adversely affected, but Bank of Estonia support, which reached 6 percent of base money, was largely unrecoverable. In March 1997, the National Bank of Hungary reacted to a run on the country's second largest bank for small depositors by providing a temporary exemption from reserve requirements; the run quickly subsided and most deposits returned to the banking system. Also in the spring of 1997, the operations of the largest saving house in the former Yugoslav Republic of Macedonia were suspended when sizable unreported deposits were discovered. Some banks suffered modest net withdrawals of deposits and there were limited capital outflows following the suspension, but there were no further significant effects on economic or financial activity.

In Russia, other countries of the former Soviet Union (excluding the Baltic countries), and Mongolia, financial sector problems have at no time reached the stage of crisis. However, the overall financial situation has generally remained fragile, with large fractions of nonperforming loans, and banking sector difficulties have constrained the conduct of monetary policy in several countries, as the following examples illustrate.¹

In Russia, weaknesses in segments of the banking system and concerns about counterparty soundness contributed to a temporary collapse of the interbank market in August 1995, requiring the central bank to inject liquidity temporarily through large-scale purchases of treasury bills.² In Kazakhstan, a number of large banks ran into serious difficulties in 1996; the fourth largest bank was closed in October, and two other major banks were put under conservatorship and merged. Reflecting the loss of confidence in the banking sector, the demand for bank deposits, particularly foreign currency deposits, declined as money holders shifted into cash. During 1996, the income velocity of money increased by about 5 percent, despite a steady decline in inflation, and the currency-to-deposit ratio increased by around 26 percent; banking system credit to the private sector declined as banks preferred to hold excess reserves rather than to extend new lending. In the Kyrgyz Republic, amid rising concerns about the solvency of the banking system in 1995, supervision was strengthened and a comprehensive restructuring plan for the financial sector was introduced, resulting in the closure of the two largest, formerly specialized, banks and a number of smaller banks. As was the case in Kazakhstan, these banking sector problems resulted in an increase in the currency-to-deposit ratio and a drop in bank lending to the private sector in real terms. At the same time, the National Bank of the Kyrgyz Republic created a special facility to provide liquidity to problem banks, reducing its ability to use indirect instruments.

In Mongolia, commercial banks, burdened with large nonperforming loans, became increasingly illiquid in 1996 and confidence in the banking system waned. The income velocity of money increased by almost 25 percent, and the share of currency in broad money rose from 25

¹In Russia and other countries of the former Soviet Union (excluding the Baltic countries), the bulk of bad loans is typically concentrated in the five largest banks, often the formerly state-owned specialized banks, which continue to account for a major share of total banking system assets (on average around 70 percent).

²Temporary liquidity injections are usually associated with repurchase agreements rather than outright purchases of treasury bills, since the former are self-reversing. However, repurchase agreements were introduced in Russia only in October 1996.

percent to 33 percent during the year. The authorities first adopted a policy of supporting weak banks by providing them with ready access to central bank credit. Net credit to banks doubled, and much of the credit was provided on concessional terms outside the regular central bank lending facilities. Because of the relaxation of monetary policy that this support entailed, inflation started to accelerate and the exchange rate rapidly depreciated. In late 1996, the authorities decided to end the policy of open-ended accommodation and began implementing a comprehensive bank-restructuring strategy, including the closure of two large insolvent banks and the establishment of an asset-recovery agency. This strategy has made it possible for monetary policy to focus on macroeconomic stabilization rather than being diverted by support to banks.

Growing distress in the Latvian and Lithuanian banking systems turned into full-fledged crises in 1995. The crisis in Latvia erupted in April after the failure of some banks to complete audited reports for 1994 and the subsequent closure of the country's largest commercial bank. The crisis damaged public confidence in the banking sector, with total deposits, excluding deposits blocked in insolvent institutions, falling by 35 percent in the first half of 1995. The banking crisis induced large capital outflows and forced the Bank of Latvia to intervene in the foreign exchange market. The Lithuanian crisis was triggered in December 1995 by the publication of on-site inspection results for the largest and third largest private banks, and the subsequent suspension of these banks' operations. Immediately following the closure of these banks, widespread and steady deposit withdrawals took place from the remaining banks, with large outflows of foreign exchange through the currency board. While the banking crises in Latvia and Lithuania did not lead to widespread macroeconomic instability, they increased the volatility of the demand for money and the money multiplier, thereby complicating the conduct of monetary policy, and reversed much of the financial deepening achieved in the early years of the transition. The deflationary impact of the Baltic banking crises was less severe than suggested by the sharp contractions in domestic liquidity, mostly because of the still rather limited role of bank intermediation before the crises and the high degree of dollarization. However, in both countries, the money multiplier remains lower and the currency-to-deposit ratio higher than before the crisis, and bank lending to the private sector as a share of total credit has not recovered, with banks preferring to hold less risky government securities.³

³For a detailed analysis of these issues, see Marta de Castello Branco, Alfred Kammer, and Effie Psalida, "Financial Sector Reform and Banking Crises in the Baltic Countries," IMF Working Paper 96/134 (December 1996).

In Bulgaria, bank liquidity problems emerged in late 1995 in the wake of public recognition that several banks had become insolvent as a result of the accumulation of bad loans. By that time, the net worth of the banking system was negative to the tune of about 10 percent of GDP, with 70 percent of loans classified as nonperforming and 25 percent as uncollectible. Confidence in the banking system started to decline, it weakened further with the subsequent closure of several banks, and toward mid-1996 there was a run on the entire banking system,⁴ coupled with a simultaneous run on the currency. The crisis forced the Bulgarian National Bank to provide substantial liquidity support to the state banks under greatest pressure, and to initiate liquidation procedures against an additional number of banks. By the middle of 1997, 4 of the original 10 state banks and 14 of the original domestic private banks had been closed; these banks had accounted for around one-third of total deposits before the crisis. In Romania, faced with a surge in nonperforming loans, the national bank, after having failed to take timely regulatory actions, was forced in 1996 to act as lender of last resort and extend large emergency credits to two ailing private banks. The liquidity support to these banks was an important contributor to the bank's loss of control over reserve money in the second half of 1996 and contributed to a renewed acceleration in inflation toward the end of the year. Finally, in Albania, "pyramid" investment schemes attracted funds estimated at up to 50 percent of GDP during 1994–96 by exploiting loopholes in the existing legal and regulatory framework. The schemes collapsed in early 1997, as several of the larger companies involved were unable to continue attracting enough new deposits to cover interest payments as interest rates had been driven up to very high levels.

These experiences show that financial sector problems have remained widespread among the transition countries, and they illustrate one of their main negative consequences, a reduction in the effectiveness of monetary policy. The experiences also demonstrate that policies to support insolvent banks by extending cheap central bank credit are counterproductive and typically result in higher inflation and exchange rate depreciation. They show too how important it is that transition countries maintain efforts to reform and strengthen their financial systems, in particular when they still suffer from systemic stress that may develop into liquidity crises.

⁴Between December 1995 and December 1996, lev deposits as a percentage of GDP were halved, while foreign currency deposit withdrawals totaled almost \$900 million, or about 40 percent of deposits outstanding.

Table 26. Selected Countries in Transition: Interest Rate Spreads¹*(In percent)*

	1991	1992	1993	1994	1995	1996
Armenia	182.3	58.8
Belarus	58.9	74.2	28.5
Bulgaria	9.9	11.7	16.9	21.4	23.0	48.8
Croatia	16.4	14.7	16.9
Czech Republic	7.1	6.0	5.8	5.7
Estonia	20.7	14.3	9.6	6.2
Georgia	45.2
Hungary	4.7	8.6	9.8	7.1	6.5	5.2
Latvia	38.0	28.2	23.0	14.3
Lithuania	43.2	34.9	18.2	15.9
Moldova	19.0
Mongolia	174.8	132.5	54.8	55.5
Poland	6.7	6.1
Romania	102.2	15.0	78.0	21.0	22.0	25.0
Russia	73.4	54.4
Slovak Republic	6.4	5.2	6.6	7.0
Slovenia	...	52.3	17.0	11.5	9.5	8.7
Ukraine	24.2	41.7	60.6	46.3

¹Defined as the difference between the domestic currency short-term bank lending and deposit rates at the end of the year.

induce adverse selection and moral hazard effects, since these banks may be willing to borrow at very high cost to avoid illiquidity. These problems are best handled by introducing appropriately designed market-based monetary instruments, such as collateralized transactions. In addition, the careful design and sequencing of specific supervisory policies and bank-restructuring schemes can support the adoption of indirect monetary policy instruments in the presence of bank weaknesses.¹²⁷

Many transition countries have made good progress in introducing efficient, market-based financial systems in general and in dealing with banking sector problems in particular. It appears that the institutional capacity of the financial system in transition countries has generally improved faster when a new or parallel private banking system has been allowed to emerge than it has when the government has tried simply to reform existing state-owned banks.¹²⁸ Country experience indicates that successful bank restructuring requires a comprehensive approach addressing not only the immediate stock and flow problems of weak and insolvent banks, but also correcting shortcomings in the accounting, legal, and regulatory framework and improving supervision. Privatization of formerly spe-

¹²⁷See V. Sundararajan, "The Role of Prudential Supervision and Financial Restructuring of Banks During Transition to Indirect Instruments of Monetary Control," IMF Working Paper 96/128 (November 1996).

¹²⁸Stijn Claessens, "Banking Reform in Transition Countries," World Bank Policy Research Working Paper No. 1642 (Washington: World Bank, August 1996).

cialized and still state-owned banks, and firm exit policies, allowing in particular the closure of small private banks established in the initial transition years, are also part of best practice.¹²⁹ At the same time, additional financial sector reform measures are needed. While a fair number of countries are already implementing comprehensive financial sector adjustment programs, in others—Russia and some other countries of the former Soviet Union, for example—authorities are still assessing the magnitude and nature of banking sector problems and are concentrating their efforts on enhancing banking supervision and on identifying and closing individual insolvent banks.¹³⁰ Given the systemic nature of the problem, additional efforts are needed to formulate a more comprehensive restructuring strategy, to further develop regulation, prudential norms, supervisory capacity, and accounting frameworks, and to address the lack of basic financial skills on the part of bank management.

Other Factors Affecting Conduct and Transmission of Monetary Policy

In addition to having to maintain efforts to improve monetary policy instruments and strengthen the financial system, monetary authorities face a number of additional challenges, such as those involved in relative price adjustment, dollarization, and capital inflows. These phenomena reflect both continuing corrections of distortions inherited from central planning and responses to more recent developments in the macroeconomic environment and in financial policies.

Relative Price Adjustment

The price mechanism did not have a significant allocative role in centrally planned economies, and the structure of relative prices in these economies was vastly different from that in market economies. Relative prices have changed substantially since the beginning of the transformation, moving closer to those prevailing in advanced market economies.¹³¹

¹²⁹Michael S. Borish, Millard F. Long, and Michel Noël, "Banking Reform in Transition Economies," *Finance & Development*, Vol. 32 (September 1995), pp. 23–26.

¹³⁰For an analysis of banking sector reform in the Baltics, Russia, and the other countries of the former Soviet Union, see Ceyla Pazarbaşıoğlu and Jan Willem van der Vossen, "Main Issues and Challenges in Designing Bank-Restructuring Strategies," in *Central Bank Reform in the Transition Countries*, ed. by V. Sundararajan, Arne Petersen, and Gabriel Sensenbrenner (Washington: IMF, 1997); and "Status of Market-Based Central Banking Reforms in the Baltics, Russia, and the Other Countries of the Former Soviet Union" (IMF, forthcoming).

¹³¹See Vincent Koen and Paula De Masi, "Prices in the Transition: Ten Stylized Facts," *Staff Studies for the World Economic Outlook* (IMF, forthcoming).

Overall price levels, measured in a common currency, have also started to converge to market economy levels (see Box 8). Notwithstanding this progress, even in the most advanced transition countries, such as Poland, the structure of relative prices remains quite different from that in neighboring market economies. Substantial differences in absolute price levels across the transition countries and between the transition and the advanced economies remain as well.

The adjustment of relative prices has implications for the inflation process in countries in transition. Adjustments in relative prices to a market-determined structure can lead to upward pressure on overall inflation if price rigidities are present or when uncertainty increases. Statistical analysis confirms that relative price changes, as reflected in relative price variability, have contributed to inflation, with the contribution having been most significant during the early phases of the transition, and in Russia and the other countries of the former Soviet Union.¹³² Increases in relative prices of capital-intensive services such as housing, utilities, and transportation may be an important factor influencing current inflation rates. After having lagged other prices during the early years of the transformation, these prices have more recently been increasing in relative terms on a sustained basis. In 1996, services prices were the fastest rising component of the consumer price index in most countries in transition (see Table 27). Notable exceptions were Belarus, where there has been little progress with market-oriented reforms, and Bulgaria and Romania, where price increases were fueled across-the-board last year by lax financial policies.

In view of its effect on overall inflation, the process of relative price adjustment has implications for the design and implementation of monetary policy.¹³³ The relative price effect on inflation has to be considered when choosing the pace at which inflation is brought down from moderate to low single-digit rates since it may add to the short-term output costs of tightening monetary policy. Efforts to avoid these additional costs and achieve lower inflation targets by postponing the adjustment of public service prices are likely to be counterproductive, as the realignment of prices is needed to make the provision of public services more efficient and cost effective, which in turn contributes to lower future inflation. The size of the effect of relative price adjustment on inflation varies with circumstances across countries and time periods, so that the

¹³²See Sharmini A. Coorey, Mauro Mecagni, and Erik Offerdal, "Disinflation in Transition Economies: The Role of Relative Price Adjustment," IMF Working Paper 96/138 (December 1996).

¹³³See Sharmini A. Coorey, Mauro Mecagni, and Erik Offerdal, "Designing Disinflation Programs in Transition Economies: The Implications of Relative Price Adjustment," IMF Paper on Policy Analysis and Assessment 97/1 (February 1997).

Table 27. Countries in Transition: Changes in Consumer Prices, December 1995–December 1996
(In percent)

	Total	Food	Nonfuel Goods	Services
Armenia	5.6	1.7	5.7	21.3
Azerbaijan	6.8	0.2	9.8	104.3
Belarus	39.1	43.6	30.2	29.7
Bulgaria	311.1	303.7	329.1	306.7
Croatia	3.4	5.6	1.0	8.7
Czech Republic	8.7	7.9	7.5	11.3
Estonia	14.9	13.1	13.0	16.8
Hungary	20.0	17.7	20.9	22.3
Latvia	13.2	7.7	17.4	18.6
Lithuania	13.1	13.6	10.9	16.1
Kazakhstan	28.6	16.4	7.4	139.3
Kyrgyz Republic	35.0	39.1	20.0	46.6
Moldova	15.1	11.7	14.6	29.8
Mongolia	58.8	52.1	52.0	81.8
Poland	18.5	19.0	17.6	19.5
Romania	56.8	55.2	60.3	53.6
Russia	21.8	17.7	17.8	48.4
Slovak Republic	5.5	3.4	6.6	5.1
Slovenia	8.8	12.9	7.0	12.9
Tajikistan	40.6	34.9	41.2	80.0
Ukraine	39.7	17.4	18.8	112.7
Uzbekistan	64.4	63.2	55.5	71.1

Source: United Nations Economic Commission for Europe; and IMF staff.

implications for inflation targets and nominal anchors must be assessed case by case.

Dollarization

The use of foreign currency assets as money and the holding by domestic residents of foreign currency and foreign-currency-denominated deposits at domestic banks—so-called dollarization—have been widespread in countries in transition in recent years and continue to pose challenges for the conduct of monetary policy. Foreign currency holdings by domestic residents were typically restricted during the prereform period, and the supply of foreign exchange for international transactions was centrally allocated and controlled.¹³⁴ With the advent of wholesale market-oriented reforms, a combination of institutional factors and macroeconomic instability brought about rapid dollarization. At the start of the reform programs, foreign exchange regimes were substantially liberalized, while domestic financial market reform, including the introduction of financial instruments denominated in domestic currency and interest rate liberalization, proceeded far more slowly. At the same time, high inflation and lack of confidence in the exchange rate, asso-

¹³⁴Nevertheless, in countries such as Hungary, Poland, and the former Yugoslavia, dollarization was already significant and officially accepted in the prereform period, while foreign currency cash was part of the unofficial economy in other countries.

Box 8. Relative Price Adjustment and Price Convergence in Transition Countries

The structure of relative prices in the transition economies at the onset of the transformation was vastly different from that in the advanced market economies. Overall price levels, as measured in a common currency, were also widely divergent from the range of price levels prevailing among advanced economies. These differences in relative prices and price levels reflected two main factors. First, prices were heavily distorted under the system of central planning. Second, even undistorted prices would have been different as real per capita income levels in the transition economies were significantly lower than those in advanced economies. Both price structures and national price levels are highly correlated with purchasing-power-parity-adjusted income per capita.¹ For example, estimates by the World Bank indicate that in 1995, the price level in the United States was about three times higher than that prevailing on average in developing countries, in U.S. dollar terms. Price comparisons between transition economies and market economies therefore have to take into account differences in real GDP per capita.

In the course of the transition, prices have started to converge to market economy levels in different dimensions.² The structure of domestic prices has moved closer to that prevailing in advanced market economies. Overall price levels have started to converge toward market economy levels as well. Moreover, prices have been converging across regions and alternative distribution channels within countries in transition, while overall price levels have been coming closer together across these countries. The adjustment of prices has proceeded in two broad phases following initial price liberalization: first, prices of tradable goods moved toward those on international markets; more recently, services prices have been brought more closely into line with market economy comparators, and price level convergence has gained momentum.

In most transition countries, relative price adjustment started in earnest with the liberalization of a substantial proportion of prices at the outset of the transformation process. This allowed the prices of a large range of consumer items to become market-determined, often with the exception of staples and many services, particularly housing and utilities. These measures translated into a surge in the overall price level that was typically many times larger than prior and subsequent price level increases and was related to the size of the initial monetary overhang. At the same time, reflecting an even more pronounced decline in the exchange value of the national currency, price levels in many transition countries, expressed in a common currency, fell farther below market economy comparators. The further price level divergence mainly reflected initial undervaluation of the domestic

currency following devaluation in the context of a stabilization program or the introduction of a new currency.

Following the initial wave of price liberalization and the introduction of market-based exchange rates, the forces of international competition started to drive the prices of tradables toward those prevailing on international markets. Within a few years, a substantial degree of convergence of tradables prices was achieved. For example, tax-adjusted gasoline prices in the Czech and Slovak Republics and in Hungary had approached Austrian levels by 1993.³ Relative price changes during the early years of the transformation also reflected the piecemeal liberalization of prices that had not been freed initially and the periodical adjustment of prices that remained controlled, primarily prices of services. On the whole, administered prices were often adjusted by less than was needed to keep up with the increases in market-based prices. As a result, prices of services, which typically were the most distorted prices under central planning, deviated even further from market levels during this period. With adjustments in tradables prices being partly offset by lagging services prices, progress in price level convergence was limited. Thus in 1993, price levels in southeastern Europe, the Baltics, Russia, and other countries of the former Soviet Union were 20 percent or less of the Austrian benchmark level.

In more recent years, relative price adjustment has continued at a slower pace, reflecting the convergence of price structures that had occurred earlier. At the same time, the nature of the adjustment process has changed, with increases in services prices, administered prices for government-provided services in particular, now being the main driving force. The convergence of overall price levels toward those prevailing in comparable market economies has also gained momentum. The unweighted average consumer price level ratio vis-à-vis Austria for a sample of 15 transition countries rose from one-fourth in 1993 to over one-third in 1996, with particularly rapid increases in the Baltics, Russia, and Ukraine.

Adjustments of relative prices can affect the overall inflationary process. Such adjustments will lead to higher inflation in the presence of downward price rigidities or other frictions in relative price adjustment and loose monetary policy. An initial price increase for a particular good or service can have a large inflationary impact if the relative price increase involved is subsequently partly undone by upward adjustments in other prices, provided these adjustments are accommodated by money growth. Relative price adjustments can contribute to overall inflation in other ways too. For instance, relative price changes may increase uncertainty. In the presence of adjustment ("menu") costs, price setters (firms and, in the case of administered prices, government agencies) will change prices only at certain intervals in response to changes in the economic environment. More uncertainty then reduces

¹For evidence on the relationship between price structures and income levels, see Daniel A. Nuxoll, "The Convergence of Price Structures and Economic Growth" (unpublished; Blacksburg: Virginia Polytechnic Institute, 1996).

²See the more detailed analysis in Vincent Koen and Paula De Masi, "Prices in the Transition: Ten Stylized Facts," *Staff Studies for the World Economic Outlook* (IMF, forthcoming).

³Austria is the comparator country in the price level comparisons carried out by the Organization for Economic Cooperation and Development.

the optimal interval between price changes. More frequent price changes in turn make monetary expansion translate more fully and more rapidly into overall price increases.

An analysis of a panel of 21 transition economies during 1991–95 indicates that relative price variability indeed had a statistically significant and fairly important effect on overall inflation.⁴ The contribution varied by region and over the sample period and depended on the extent to which relative price adjustments were accompanied by nominal wage increases and accommodated by money growth. Causality is hard to establish, but a more detailed study of three Baltic countries during 1993–96 indicates that causality ran from relative price adjustment to inflation.⁵

The process of relative price adjustment and price level convergence also has implications for the behavior of real exchange rates. Real exchange rates can be defined in a number of ways. Real exchange rate changes are sometimes calculated as changes in the ratio of the domestic price of nontraded goods to the domestic price of traded goods or as changes in the ratio of consumer prices in the home country to consumer prices in its trading partners, expressed in a common currency. According to either definition, the price adjustments in transition countries entail real appreciation of the domestic currency. The recent rise in the relative price of services constitutes an increase in the relative price of nontraded goods, while the convergence of overall price levels represents an increase in consumer prices relative to trading partners. A gradual real exchange rate appreciation that reflects price convergence during transition is thus an equilibrium adjustment phenomenon, which does not involve an unwarranted loss of competitiveness.

The price adjustment process and the associated appreciation of the real exchange rate are expected to continue in the years ahead. While the distortions inherited from central planning have been mostly eliminated and the initial price level gaps between transition countries and market economies with comparable levels of real per capita income have been largely closed, substantial gaps remain vis-à-vis the advanced economies (*see figure*). Price structures may be expected to become more similar and price levels to converge as productivity improvements narrow income differentials. Full convergence of real income and price levels on those in advanced economies can be expected only in the long run, however. At the same time, the prices of many capital-intensive services in transition countries (housing, utilities, transportation) are still below cost-recovery levels and will need to adjust further in relative terms. According to the so-called cost-recovery hypothesis, this adjustment need not take place in the short run.⁶ The production of services in transition countries is

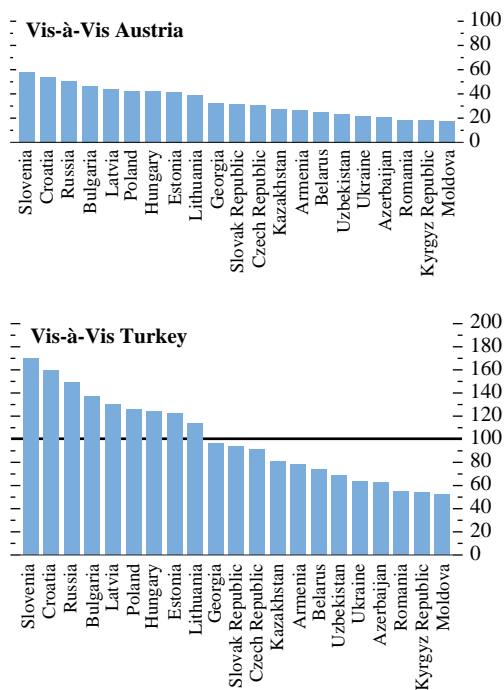
⁴See Sharmini Coorey, Mauro Mecagni, and Erik Offerdal, “Disinflation in Transition Economies: The Role of Relative Price Adjustment,” IMF Working Paper 96/138 (December 1996).

⁵See Krajnyák and Klingen, “Price Adjustment and Inflation in the Baltics, 1993–96,” IMF Working Paper (forthcoming).

⁶See Basil Zavoico, “A Brief Note on the Inflationary Process in Transition Economies” (unpublished; IMF, 1995). The cost-

Countries in Transition: Overall Price Level Gaps, 1996

(In percent)



Source: Vincent Koen and Paula De Masi, “Prices in the Transition: Ten Stylized Facts,” *Staff Studies for the World Economic Outlook* (IMF, forthcoming).

based on an inherited capital stock that appears to be “too large” when compared with other countries that have similar income levels, and there is room for downsizing this capital stock. Services prices will therefore have to rise only gradually to cover maintenance cost and eventually new investment while the excess capital stock is being consumed. To the extent the cost-recovery hypothesis applies, the price level in transition countries will remain lower than in market economies with similar real per capita income but may be expected to rise more rapidly as real income in both groups of countries converges on that in the advanced economies.

recovery effect has to be distinguished from the so-called Balassa-Samuelson effect, according to which the relative price of nontradable services will gradually increase as real per capita income rises because of slower trend productivity growth in the production of services than in that of tradable commodities.

Table 28. Countries in Transition: Dollarization Ratios¹

	1991	1992	1993	1994	1995	1996
Albania	1.3	23.6	20.2	18.8	18.7	21.0
Armenia	0.2	19.2	44.7	41.7	20.4	21.0
Azerbaijan	...	0.1	14.8	58.9	26.3	22.1
Belarus	0.5	4.8	37.7	56.5	30.7	24.2
Bulgaria	33.4	23.4	20.3	32.6	27.2	50.5
Croatia	36.0	35.2	45.8	48.4	57.4	59.6
Czech Republic	7.9	9.3	8.1	7.2	6.4	7.6
Estonia	56.3	22.9	4.6	11.1	10.9	10.8
Georgia	...	2.2	42.9	51.1	12.7	14.9
Hungary	16.5	14.3	18.7	20.4	26.6	24.2
Kazakhstan	...	2.5	14.7	16.9	21.4	16.5
Kyrgyz Republic	...	5.8	10.3	6.4	7.8	8.3
Lithuania	...	46.6	25.7	27.0	25.8	25.5
Latvia	...	35.1	26.2	27.6	29.5	30.7
Macedonia, former Yugoslav Rep. of	...	...	32.4	18.5	18.1	16.3
Moldova	...	2.1	15.2	10.3	11.0	9.9
Mongolia	5.9	5.9	29.3	17.1	18.3	19.1
Poland	24.7	24.8	28.8	28.6	20.4	17.3
Romania	3.9	17.9	29.0	22.1	22.6	23.4
Russia	16.8	42.7	27.0	27.9	19.0	19.0
Slovakia	3.1	6.3	11.5	13.0	11.1	10.0
Slovenia	48.4	44.4	45.5	38.0	39.3	38.5
Tajikistan	...	...	1.8	1.9	33.7	14.9
Turkmenistan	...	12.4	4.6	17.6	5.0	52.1
Ukraine	...	8.6	19.4	32.0	22.8	18.3
Uzbekistan	...	22.7	5.1	22.5	15.5	15.1

¹The dollarization ratio is the ratio of foreign exchange deposits to broad money, including foreign currency deposits.

ciated with lax financial policies, made holding domestic currency particularly unattractive (see also Box 6 in Chapter IV).¹³⁵

Dollarization has now leveled off in most countries in transition and started to decline in some, as successful stabilization programs and progress with financial sector reform have led to declines in inflation and to a strengthening of public confidence in domestic currencies and banking systems, and made available assets denominated in domestic currency with attractive real rates of return. In countries such as the Czech and Slovak Republics, Estonia, the Kyrgyz Republic, and Moldova, the dollarization ratio (the ratio of foreign currency deposits to broad money) currently stands at around 10 percent, while in most other countries in transition the ratio ranges between 15 and 25 percent (see Table 28).¹³⁶ The use of foreign

¹³⁵For a detailed analysis of the dollarization in the early years of the transition, see Ratna Sahay and Carlos Végh, "Dollarization in Transition Economies: Evidence and Policy Implications," in *The Macroeconomics of International Currencies*, ed. by Paul Mizen and Eric Pentecost (Aldershot: Edward Elgar, 1997), pp. 193–224.

¹³⁶The dollarization ratio is, however, only an approximate measure of dollarization. Three types of foreign currency assets are relevant: foreign currency deposits in the domestic banking system, such deposits held at banks abroad, and foreign currency cash held within the domestic economy. Only the first is included in the

currency assets as a store of value may be expected to be a more permanent phenomenon, being to a significant extent a natural outcome of portfolio diversification following financial liberalization and integration with international financial markets. It poses a number of challenges for the conduct of monetary policy and raises a number of broader policy issues.

Dollarization raises the question of which assets should be included in the monetary aggregates that are used by monetary authorities as indicator or target variables. Aggregates including foreign currency cash and deposits are relevant if the use of foreign currency as a medium of exchange weakens the relationship between domestic money and inflation. There may be less reason to consider such aggregates if dollarization represents asset diversification, with little significance for aggregate demand and inflation. Since in practice dollarization is likely to reflect some combination of both motives, there is a case for considering aggregates both including and excluding foreign currency deposits when assessing monetary conditions. Dollarization raises a number of additional issues. It involves a loss of seigniorage, as the demand for domestic base money is lower than otherwise, and may affect the credibility of the central bank and the costs of inflation.¹³⁷ Dollarization also affects the choice of currency arrangement, as discussed in Box 6 in Chapter IV. Perhaps most important, an increase in foreign currency deposits with the domestic banking system increases the vulnerability of the banking sector, official foreign exchange reserves, and the exchange rate to reversals in market sentiment and capital flight, as illustrated by the recent Bulgarian experience. Although dollarization may have negative consequences, restrictions designed to reduce the holding of foreign assets are likely to prove even more detrimental. Dollarization in excess of normal portfolio diversification should be seen as a symptom and not a cause of underlying financial weaknesses.

Capital Inflows

A number of countries in transition have experienced increasing and substantial capital inflows. Such

dollarization ratio, which therefore understates the magnitude of the phenomenon. Foreign currency cash held outside the banking system has been particularly important in Russia. It is estimated that Russian enterprises and households acquired the equivalent of around \$8.5 billion in foreign currency cash in 1996 alone, equal to more than 75 percent of the foreign currency deposits outstanding at the end of that year. A substantial portion of these cash flows in Russia originates in the "shuttle" trade.

¹³⁷See Alberto Giovannini and Bart Turtelboom, "Currency Substitution," in *The Handbook of International Macroeconomics*, ed. by Frederick Van Der Ploeg (Oxford: Basil Blackwell, 1994), pp. 390–436; and Guillermo Calvo and Carlos Végh, "From Currency Substitution to Dollarization and Beyond: Analytical and Policy Issues," in *Money, Exchange Rates and Output*, ed. by Guillermo Calvo (Cambridge, Massachusetts: MIT Press, 1996), pp. 153–75.

inflows can be highly beneficial as they may contribute to the financing both of additional investment to replace obsolete and inefficient capital stocks, and of increased consumption that may allow the current generation not to bear the full one-time costs of transition. At the same time, however, capital inflows tend to put upward pressure on the exchange value of the domestic currency and lead to real exchange rate appreciation, through either growth in monetary aggregates and higher inflation under a pegged exchange rate regime or to nominal appreciation in a flexible regime. Moreover, capital inflows may threaten the soundness and resilience of the financial system to the extent that inflows involve an increase in bank deposits that induces an unwarranted expansion of bank credit.

Several countries in central and eastern Europe and the Baltics began to receive substantial capital inflows from 1992 to 93 on, when macroeconomic stabilization was being consolidated.¹³⁸ Capital inflows to these countries peaked in 1995 at around 8 percent of GDP for the region as a whole, with particularly large inflows, equal to around 18 and 17 percent of GDP respectively, into the Czech Republic and Hungary. Net capital inflows slowed in 1996, and Estonia and the Slovak Republic moved ahead of the Czech Republic and Hungary as main recipients, in relation to GDP. Not only the size, but also the causes and nature of the inflows have differed from country to country, as inflows have in some cases been a response to high domestic nominal interest rates in the presence of reduced exchange rate risk (Slovenia in 1994), but elsewhere a reflection of foreign borrowing by enterprises facing high domestic borrowing costs (the Czech Republic), or partly a consequence of the sale of state enterprises to foreign investors (Hungary) or foreign direct investment (Estonia).

Countries less advanced in transition have also started to receive short-term capital inflows. These have generally been attracted by a combination of high domestic interest rates and stabilized exchange rates that translate into high returns in terms of foreign currency. Such inflows occurred in Bulgaria in 1993–94 and in Kazakhstan and Russia in 1995, where the inflows appear to have been primarily the result of financial operations by residents.¹³⁹ Short-term capital

Table 29. Selected Countries in Transition: Net Capital Inflows¹

(In percent of GDP)

	1992	1993	1994	1995	1996
Bulgaria	-5.7	-2.5	1.1	3.9	-8.9
Croatia	...	1.1	2.2	9.9	8.8
Czech Republic	-1.3	6.8	6.1	17.8	6.6
Estonia	5.0	13.4	7.6	7.1	13.3
Hungary	1.2	15.7	8.2	17.3	0.5
Kazakhstan	...	...	...	3.8	4.0
Latvia	5.6	8.6	7.5	1.7	8.0
Lithuania	4.8	7.5	3.6	4.7	3.3
Poland	-1.7	-0.9	-0.6	4.1	2.3
Romania	...	5.8	4.3	3.7	4.3
Russia ²	...	...	-5.9	0.2	-2.6
Slovak Republic	-5.0	2.0	7.4	6.7	7.4
Slovenia	-2.4	-0.7	0.7	1.5	3.0
Ukraine	...	...	0.4	-10.8	5.3

¹Net capital inflows are defined as the balance on financial account in the balance of payments, excluding changes in international reserves, plus net errors and omissions.

²On a cash basis, excluding the impact of debt rescheduling.

inflows into Russia and some other countries of the former Soviet Union resumed in 1996 and continued in the first half of 1997 following the gradual opening up of local treasury bill markets to foreign investors. Treasury bills in these countries offered high returns in foreign currency terms that were no longer available in the more advanced countries in central and eastern Europe (see Table 29). Nonresidents are estimated to have purchased more than \$10 billion in Russian treasury bills since they gained market access in early 1996. More recently, as Russian interest rates have fallen, nonresident investors have diversified into the Kazak and Ukrainian treasury bill markets.

In many countries more advanced in transition, most notably Croatia, the Czech and Slovak Republics, Hungary, and Poland, there have been sizable operations to sterilize the capital inflows. These operations have involved substantial fiscal costs arising from wide differentials between the interest rates paid on domestic debt held by the monetary authorities and the yields earned on foreign reserves. Moreover, in some countries they were only partially effective in containing monetary expansion, with effectiveness eroding as the sterilization continued. Other responses have included the introduction of inflow controls in the Czech Republic and Slovenia in 1995, and changes in the exchange rate regimes in Poland in 1995 and in the Czech and Slovak Republics in 1996; these involved widening of the fluctuation bands around the central rates, to increase the degree of two-way risk in the foreign exchange markets and discourage speculative inflows. In the Baltic countries, the main policy response to the sizable capital inflows during 1992–96 was unsterilized intervention, although in Latvia there was some limited use of sterilization mea-

¹³⁸For an analysis of capital inflows into central and eastern Europe until 1995, see David Begg, "Monetary Policy in Central and Eastern Europe: Lessons After Half a Decade of Transition," IMF Working Paper 96/108 (September 1996); and Guillermo Calvo, Ratna Sahay, and Carlos Végh, "Capital Flows in Central and Eastern Europe: Evidence and Policy Options," in *Private Capital Flows to Emerging Markets After the Mexican Crisis*, ed. by Guillermo Calvo, Morris Goldstein, and Eduard Hochreiter (Washington: Institute for International Economics, 1996), pp. 57–90.

¹³⁹See Alain Ize, "Capital Inflows in the Baltic Countries, Russia, and Other Countries of the Former Soviet Union: Monetary and Prudential Issues," IMF Working Paper 96/22 (February 1996).

tures.¹⁴⁰ Monetary authorities in most countries less advanced in transition have allowed the first wave of short-term capital inflows to increase the money supply and induce a real exchange rate appreciation through inflation. This response has also reflected the limited scope for market-based sterilization in the absence of well-developed financial markets and indirect monetary instruments. More recent capital inflows into countries such as Russia and Ukraine have to a significant extent been sterilized by the monetary authorities.

The economic impact of capital inflows in transition countries and the appropriate policy response depend on a number of factors, including whether the inflows are temporary or more sustained, the causes behind them, the exchange rate regime, and the degree of domestic financial imbalance.¹⁴¹ For example, inflows attracted by increased domestic productivity are most naturally accommodated by real appreciation, although policymakers still must choose whether the real appreciation should be brought about through nominal appreciation or through inflation. On the other hand, in the case of a temporary increase in capital inflows resulting from a change in foreign interest rates, sterilization that limits its impact on the domestic economy may be the most appropriate response to the extent that this is feasible. In countries where high domestic interest rates due to a mix of loose fiscal and tight monetary policies attract short-term inflows, a correction of the underlying policy imbalance is generally the best response. As the origin of the inflows and their likely degree of persistence are key elements in designing an appropriate policy response, authorities need to monitor a wide range of variables, including asset prices, monetary and credit aggregates, balance of payments data, the asset-liability structure of commercial banks, and key international variables such as interest rates.

Other Factors and the Velocity Issue

Monetary authorities in countries in transition face a number of additional challenges. In Russia and the other countries of the former Soviet Union, substantial interenterprise payment arrears require special attention. The stock of arrears in Russia may be as large as the stock of broad money, and it is even higher (in relation to the broad money stock) in Belarus, Kazakhstan, Moldova, and Turkmenistan. Interenterprise arrears affect the timing of receipts and payments and hence money demand, obscuring mone-

tary conditions. Arrears also impede monetary control, as they may increase endogenously when monetary policy is tightened, and they aggravate bad debt problems for banks. While interenterprise arrears complicate the conduct of monetary policy, they should not be dealt with directly by monetary policy actions.¹⁴² Netting-out exercises that value all debt at par or credit injection operations in countries such as Belarus, Bulgaria, Kazakhstan, Romania, and Ukraine have typically resulted primarily in higher inflation and exchange rate depreciations; in contrast, arrears subsided in the countries more advanced in transition once stabilization became more firmly rooted.¹⁴³

From an operational perspective, the various factors that affect the conduct of monetary policy in countries in transition can be seen as weakening the link, at least in the short run, between the growth of monetary aggregates, and aggregate demand and inflation. A useful summary indicator measuring the strength of this link is the variability of the income velocity of money, since more volatile velocity translates into a less well-defined short-term link between money growth and nominal income. Short-run volatility of velocity is to be expected in the presence of adjustments in administered prices, shifts between domestic and foreign assets, and temporary capital inflows; quarterly data on velocity in a number of transition countries indeed show substantial short-term fluctuations.¹⁴⁴ In addition to requiring monetary authorities to consider a wider range of informational variables, shifts in velocity have broader implications for the choice of operational guidelines for monetary policy.

New Challenges for Monetary Policy

Monetary authorities in the transition countries face a number of challenges that reflect both structural issues and the need to consolidate the progress made toward macroeconomic stabilization. These challenges have further implications for the choice of nominal anchor and the appropriate rate of disinflation.

Choice of Nominal Anchor During Moderate Inflation

Most transition countries in central and eastern Europe initially chose an exchange rate target as their

¹⁴⁰See Marta Castello-Branco, "Capital Inflows in the Baltic Countries," IMF Working Paper (forthcoming).

¹⁴¹An overview of these issues is offered in Nadeem Ul Haque, Donald Mathieson, and Sunil Sharma, "Causes of Capital Inflows and Policy Responses to Them," *Finance & Development*, Vol. 34 (March 1997), pp. 3–6.

¹⁴²See David Begg, "Monetary Policy in Central and Eastern Europe."

¹⁴³In Kazakhstan for instance, inflation rose sharply and the exchange rate depreciated by about 275 percent in the four months following an arrears-clearing operation in early 1994.

¹⁴⁴See the evidence in Mark De Broeck, Kornélia Krajnyák, and Henri Lorie, "Explaining and Forecasting the Velocity of Money in Transition Economies, with Special Reference to the Baltics, Russia, and Other Countries of the Former Soviet Union," IMF Working Paper 97/104 (September 1997).

nominal anchor, partly because it was considered that the likely instability in money demand over the period of initial transformation precluded the adoption of a monetary target. The exchange rate was often fixed against the deutsche mark or a basket of currencies including the deutsche mark and the dollar, with a sizable initial devaluation providing competitive breathing space for the external sector. A currency board arrangement, the most “fixed” form of exchange rate regime short of complete dollarization or monetary union, was used by Estonia from the beginning of its transition in 1992 and by Lithuania from 1994, while Bulgaria entered into a currency board arrangement in July of this year.

Countries with smaller reserves and thus less confidence in their ability to maintain a fixed rate have generally chosen money-based stabilizations though often with informal management of the exchange rate. Latvia and Lithuania, Russia, and other countries of the former Soviet Union pursued flexible exchange rate strategies during their initial stabilization attempts.¹⁴⁵ In Slovenia, monetary targeting led to successful disinflation in the period up to 1992; further significant progress was not realized until 1995, however, when there was more explicit targeting of the exchange rate. As discussed in Chapter IV, with either fixed or floating exchange rates the most important factor in reducing inflation is commitment to the anchor, whether money or the exchange rate, insofar as it represents a commitment to disciplined and responsible fiscal and monetary policies. Some countries have occasionally given less priority to bringing down inflation. For example, Hungary from 1993 until April 1995, because of relatively high external debt and exchange market pressures, implemented a series of ad hoc currency devaluations, which eased the competitiveness problems of domestic firms and prevented an exchange rate crisis. This exchange rate policy, together with relatively large fiscal deficits, made it more difficult to reduce inflation, which remained above 20 percent for longer than in the other countries more advanced in transition in central and eastern Europe. More recently, following the introduction of a stabilization program and the adoption of a crawling peg in April 1995, there has been renewed progress in reducing inflation.

Although beneficial in braking inflation, maintaining a fixed exchange rate can become problematic once inflation has stabilized at moderate (but not low) rates, with nominal rigidities slowing the decline of inflation. With a fixed nominal exchange rate, continued inflation higher than trading partners implies an ap-

preciation of the real exchange rate that erodes external competitiveness and hinders growth unless matched by productivity gains in the traded goods sector. In the Czech Republic, for example, activity weakened toward the end of 1996 as real wage increases outpaced productivity growth and exports stagnated partly owing to sluggish growth in the EU. Such export sector difficulties often give rise to calls for depreciations that could lead to the very inflation the peg was designed to prevent.

Once macroeconomic stability has been achieved, exchange rate flexibility can provide a mechanism through which adjustment to internal and external shocks can occur. A shift toward a more flexible exchange rate regime is also likely to facilitate the management of capital inflows, since inflows will lead to an exchange rate appreciation that naturally stabilizes their volume. Moving away from the nominal anchor of a fixed exchange rate may reduce inflation discipline, however, so that it is important first to ensure that monetary and fiscal policies are balanced and that credibility is established. For countries that have achieved low inflation and aspire to membership in the EU and participation in EMU, a more flexible exchange rate may be only a temporary option. These countries are likely to aim to adopt a relatively tight peg to the major European currencies and eventually to the euro. However, substantial further progress with adjustment and restructuring is required before introducing a rigid peg, which could otherwise be quickly challenged if financial markets perceive it to be inconsistent with economic fundamentals.

The question arises of how to adjust the exchange rate regime gracefully, in a way that preserves hard-won credibility on inflation and does not fully give up the currency anchor used to bring inflation down. A crawling peg that allows some real appreciation and drag on inflation but moderates the pressure on export sector competitiveness is likely to be preferred to ad hoc devaluations, since it provides some of the benefit of an exchange rate peg in the form of guidelines for prices and wages. The rate of depreciation can be slowed as inflation falls to provide continuing price restraint; for example, as inflation in Hungary has slowed since 1995, the rate of depreciation of the forint has been reduced three times, from the original rate of 1.9 percent a month to 1.0 percent as of this August. At the same time, having a relatively wide band of permissible currency fluctuation around the peg may give additional flexibility and deter short-term speculative movements.

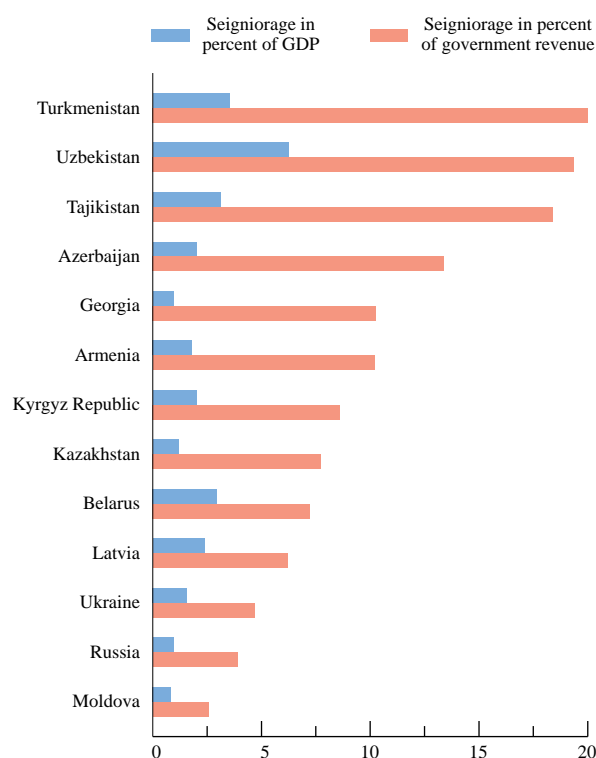
Obstacles to Reducing Inflation

Apart from the exceptions of Croatia and the former Yugoslav Republic of Macedonia, inflation remains well above the rates seen in most advanced economies, even in transition countries that have main-

¹⁴⁵Subsequent to the main stabilization phase, Latvia introduced a de facto peg against the SDR in February 1994, Lithuania adopted a currency board with the U.S. dollar as reserve currency in March 1994, and Russia introduced a crawling band vis-à-vis the U.S. dollar in July 1996.

Figure 31. Latvia, Russia, and Other Countries of the Former Soviet Union: Importance of Seigniorage in 1996

Seigniorage remains an important source of government revenue in many countries less advanced in the transition.



tained tight financial policies for considerable periods of time. In Estonia and Lithuania, despite the rigid nominal anchor of the currency board arrangements, inflation remained above 20 percent through 1996 before moving lower this year, while inflation has failed to converge rapidly to advanced economy levels in countries such as Latvia and Poland that have generally adhered to their exchange rate targets. In the Czech Republic, inflation stalled at rates above those in the major advanced economies, despite a very stable exchange rate until the spring of 1997.

A number of factors have contributed to the slowness of the decline in inflation following initial stabilization: the continued adjustment of relative prices, particularly increases in prices of services such as electricity and housing that have only recently been freed from regulation; increases in the quality of traded goods that are not adequately taken into account in price indices; increases in taxes; and in many countries, continuing increases in wages above productivity growth, particularly in the nontraded goods sector where productivity growth has been relatively slow. Backward-looking indexation of wages and prices has also led to price inertia in countries in central and eastern Europe: in Poland, for example, widespread indexation means that inflation passes through quickly into wages.

In some countries, particularly those less advanced in transition, pressures for loose monetary policy result from fiscal weaknesses. Often seigniorage still constitutes an important component of government revenue, and to avoid the need for it, the ability to collect taxes must be improved or spending reduced (see Figure 31). The typically smaller importance of seigniorage in countries more advanced in transition suggests that such fiscal adjustments are attainable. In Russia and most other countries of the former Soviet Union, substantial arrears remain on pensions, government payments, and taxes. These arrears must be addressed to reduce pressures for a monetary bailout. At the same time, they complicate an assessment of budgetary revenues and expenditures and mean that the actual fiscal deficit is larger than shown in the budget. In Russia, although pension arrears have been cleared as of the end of June 1997, tax arrears at the federal level still equal around 2 percent of GDP, with significant arrears also in government payments at both federal and local levels; substantial arrears remain in other countries as well, including Kazakhstan and Ukraine. These arrears arise from the existence of complex tax systems, weak revenue collection, and a lack of political will in pursuing enforcement actions against delinquent enterprises with personal and financial connections to government policymakers. In addition to increasing the size of the underlying fiscal deficit, arrears weaken the allocative and regulatory role of the government, skew lending patterns across sectors, and, particularly in the case of pension arrears,

lead to social hardship for vulnerable segments of the population. Substantial efforts are needed to improve tax collection as well as to simplify the tax system to encourage voluntary compliance.

Beyond these structural reasons for continuing high rates of inflation, the presence of nominal rigidities such as price and wage indexation implies that there are likely to be short-run costs of rapidly reducing inflation, in terms of lost output and higher unemployment.¹⁴⁶ Moreover, to the extent that restrictive monetary policy leads to widespread failures in problem banks or inefficient enterprises, state-owned or otherwise, policymakers may seek to proceed slowly in the fight against inflation and may even be tempted to resort to inflationary bailouts of ailing banks and enterprises, as happened in Romania in 1996. In the long run, however, the permanent benefits of low inflation are more than likely to outweigh the costs of achieving it; rather than providing justification for permitting inflation to persist, these concerns highlight the importance of making progress with industrial restructuring and financial sector reforms that will permit lower inflation to be achieved on a sustainable basis.¹⁴⁷

Maintaining Macroeconomic Balance

Threats to macroeconomic stability can arise from external imbalances involving unsustainable current account deficits, or from internal imbalances in which large fiscal deficits lead to pressure for looser monetary policy. Symptoms of macroeconomic imbalances include widening trade and current account deficits, large external debt, unsustainable real appreciations, and high interest rates that result in large short-term capital inflows.

Even a moderately large current account deficit, of say 5–6 percent of GDP, can be sustainable if the imported capital is directed toward expanding tradables production or productive investment, since the resulting increase in output or future productive capacity should allow the countries concerned to service the borrowing. Where problems have arisen, as in the Czech Republic, is when the current account deficit has widened to levels that experience shows have seldom been sustainable, especially where it reflects in large part a consumption boom. In such circumstances, a shift in market sentiment concerning the sustainability of the current account deficit can rapidly lead to a reversal of capital and a balance of payments crisis. With an immature banking sector that is unable to tap into domestic savings, this can lead to shortfalls

in investment and wholesale disintermediation. Under these conditions, there is a limit to the burden that adjustments in monetary policy can be expected to bear. In fact, the most effective policy response to a shortfall of national saving reflected in an unsustainable current account deficit is usually to tighten fiscal policy in order to offset the lack of private saving with increased public saving or reduced public dissaving. This is often also the most direct way of responding to destabilizing inflows of short-term capital attracted by high interest rates. Such policies may be supplemented by measures aimed at increasing private savings, including structural reforms in the financial sector.

For countries with internal imbalances, eliminating the underlying fiscal imbalance, through either reducing spending or enhancing the effectiveness of revenue collection, is again the appropriate policy response. Establishing an independent central bank with a mandate to focus on disinflation can help provide assurance to markets that fiscal imbalances will not be resolved by undue monetary relaxation and a burst of inflation, and is thus likely to enhance the speed of disinflation. Of course, sustainable fiscal policy is necessary for an independent central bank to function properly, otherwise monetary policy will be overburdened: even the best-intentioned central bank may be reluctant to raise interest rates if this would exacerbate an already serious fiscal position. In addition to currency board arrangements that insulate the monetary authorities in Bulgaria, Estonia, and Lithuania from fiscal concerns, independent central banks now exist in most transition countries, including most countries in central and eastern Europe, Estonia, Russia, and most other countries of the former Soviet Union. Recently enacted laws have extended central bank independence to other countries, including Georgia and Romania. Central banks in Belarus, Tajikistan, Turkmenistan, and Uzbekistan remain obligated to provide directed credits to finance fiscal deficits and quasi-fiscal deficits of state enterprises. There is evidence that efforts to make central banks independent have been fruitful: as early in the transition as 1993, countries with laws providing for an independent central bank had better inflation performance than countries without such laws, even after taking into account initial conditions and controlling for fiscal performance.¹⁴⁸

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The financial challenges remaining in the transition countries cannot be resolved by monetary policy

¹⁴⁶See the October 1996 *World Economic Outlook* for a discussion of the costs and benefits of reducing inflation from moderate levels.

¹⁴⁷On the importance of striving for low inflation rates in transition economies, see Atish Ghosh, "Inflation in Transition Economies: How Much? And Why?" IMF Working Paper 97/80 (July 1997).

¹⁴⁸See Prakash Loungani and Nathan Sheets, "Central Bank Independence, Inflation and Growth in Transition Economies," *Journal of Money, Credit, and Banking*, Vol. 29 (August 1997), pp. 381–99. For a discussion of central bank independence in central and eastern Europe, see Olga Radyzer and Sandra Riesinger, "Central Bank Independence in Transition," *Focus on Transition*, Vol. 2, No.1 (1997), pp. 57–90.

alone; they require a determined and coordinated effort, including through fiscal policy and policies to strengthen banking systems. Recent exchange market pressures suggest that exchange rate regimes may need to be adapted to the changing circumstances of the transition. Now that macroeconomic stabilization

has been substantially achieved in the countries more advanced in the transition, a higher degree of exchange rate flexibility may in some cases be desirable to facilitate adjustment to external shocks. But this cannot be allowed to weaken the anti-inflationary stance.