

Financial Repression as a Policy Choice: The Case of Ukraine, 1992–2000

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ABSTRACT. By their nature, instruments of financial repression distort interest rates, foreign exchange rates, patterns of investment, and the economic incentives of both borrowers and lenders. In order to deal with the economic pathologies introduced by the government's own credit and financial policies, governments inevitably find that they must intervene further, to ration credit and impose controls, generally on prices, wages, interest rates, foreign exchange rates and other transactions. Not only did Ukraine exhibit all of the symptoms of financial repression in the 1990s, but the basic policy instruments of financial repression also became too familiar in Ukraine. In fact, to one extent or another, in the 1990s Ukraine employed several of these measures (often in combination) as means to suppress the effects of excessive amounts of state consumption, the resultant inflation, and its own credit policies. In the long run, economic growth will suffer, however, because repression reduces the capacity of the financial system to respond to the needs of firms and households in the real economy.

KEY WORDS. Ukrainian economy; budget deficits; financial repression; interest rates; foreign exchange; inflation; banking sector; reserve ratios; directed credits; state enterprises; household liquidity; enterprise liquidity; National Bank of Ukraine; barter transactions.

For most of the 1990s, Ukraine ran large and persistent budget deficits.¹ The danger posed by persistently large deficits is that they can lead to financial or balance of payments crises.² Persistent deficits may be taken as signals of future tax increases, greater inflation, a coming devaluation, or evidence of capital flight. The public can come to

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² William Easterly, Carlos Alfredo Rodriguez and Klaus Schmidt-Hebbel, eds., *Public Sector Deficits and Macroeconomic Performance* (New York: Oxford University Press and The World Bank, 1994); Vito Tanzi, ed., *Transition to Market: Studies in Fiscal Reform* (Washington, D.C.: International Monetary Fund, 1993); and Robert S. Kravchuk, «Budget Deficits, Hyperinflation and Stabilization in Ukraine, 1991–96,» *Public Budgeting and Finance* 18: 4 (Winter 1998): pp. 45–70.

view fiscal deficits as unsustainable, touching off an inflationary spiral. To avoid the immediate effects of such crises, or to counteract them altogether – a faint hope – governments may employ a variety of instruments to suppress the effects of inflationary deficit financing on financial markets. Known collectively as tools of «financial repression,» these consist of a broad set of policies, legal restrictions, rules and regulations, controls and influences – both formal and informal – that inhibit the efficient operation of, mainly, financial and capital markets (although other markets also may be repressed; for example, wage and price controls may be imposed). In general, financial repression consists of policy measures that reduce economic efficiency generally, by erecting government-sponsored or sanctioned barriers to the timely and free assertion of opportunity-cost prices.

By their nature, instruments of financial repression distort interest rates, foreign exchange rates, patterns of investment, and the economic incentives of both borrowers and lenders. Financially repressed economies typically exhibit excessive demand for credit (because real interest rates are too low or negative) and an undersupply of loanable funds (because there are serious disincentives to save). Exchange rates tend to be overvalued in terms of foreign currency, and protections of, and subsidies to industry are too extensive.³ In order to deal with the economic pathologies introduced by the government's own credit and financial policies, governments inevitably find that they must intervene further, to ration credit and impose controls, generally on prices, wages, interest rates, foreign exchange rates and other transactions. Repressive measures may tend to «snowball,» as governments move to contain the adverse effects of the very economic forces that they have unleashed. A chain of measures may be enacted to overcome distortions introduced by earlier repressive measures, and so on.

Not only did Ukraine exhibit all of the symptoms of financial repression in the 1990s, but the basic policy instruments of financial repression also became too familiar in Ukraine, including:

- administered wages and prices;
- interest rate ceilings and controls;
- excessive bank reserves;
- foreign exchange regulations;
- rules specifying the composition of commercial bank balance sheets;
- forcing banks to purchase government securities;
- heavy or differential taxation of the financial sector; and,
- specialized state-owned (or private) banks,

³ Ronald McKinnon, *The Order of Economic Liberalization* (Baltimore: The Johns Hopkins University Press, 1990).

- possessing lavish government-conferred
- privileges.

To one extent or another, in the 1990s Ukraine employed each of these measures (often in combination) as means to suppress the effects of excessive amounts of state consumption, the resultant inflation, and its own credit policies. Governments may be tempted to employ such measures since financial restrictions can mask from the public the inflationary effects of deficit financing (at least for awhile). In the long run, however, economic growth will suffer because repression reduces the capacity of the financial system to respond to the needs of firms and households in the real economy.

Why Repression? A Government's Rationale

The traditional justification for financial repression is that it is presumed to increase the rate of economic growth.⁴ This turns on the dubious assumption that money and real assets are perfectly substitutable. The basic idea is that increasing returns in real asset markets relative to money market instruments will induce a shift in investor behavior, out of money and into capital investment.⁵ An important implication is that setting interest rate ceilings will reduce the rate of return on financial assets, and induce a shift to investments in «productive» assets (i.e., property, plant and equipment), thereby increasing the rate of economic growth.

MacKinnon and Shaw both challenged the economic growth argument, however, arguing instead that high-yielding instruments may be «crowded out» of the market by distortions introduced by financial repression, creating a false preference for capital-intensive investment, and discouraging savings.⁶ The low real interest rates characteristic of a financially-repressed economy will act to shrink bank deposits, resulting in shortages of loanable funds, which is especially hurtful to the efficient enterprises that can put them to productive use. Since the more attractive it is to hold real money balances, the greater the incentives are to invest. The clear implication is that economic growth rates will improve as interest rates are freed up so that they might rise to their equilibrium, market-clearing levels. On this view, productive investment occurs

⁴ Nouriel Roubinin and Xavier Sala-I-Martin, «Financial Repression and Economic Growth.» *Journal of Development Economics* 39:1 (1992): pp. 5-30; McKinnon, *The Order of Economic Liberalization*; John Sheahan, «Market-Oriented Economic Policies and Political Repression in Latin America.» *Economic Development and Cultural Change* 28:2 (1980): pp. 267-291.

⁵ James Tobin, «Money and Economic Growth.» *Econometrica*, vol. 33, no. 4 (1965), pp. 671-684.

⁶ Ronald I. McKinnon, *Money and Capital in Economic Development* (Washington, D.C.: The Brookings Institution, 1973); and Edward S. Shaw, *Financial Deepening in Economic Development* (New York: Oxford University Press, 1973).

in direct response to a concomitant growth in the supply of loanable funds (i.e., the real money stock). This is one reason that so many studies find inflation and economic growth to be inversely related.⁷

MacKinnon and Shaw have been criticized on the basis that raising interest rates rapidly in the absence of some amount of governmental regulation may not have the desired effect on savings and investment, nor induce a positive output response.⁸ Such critics have generally argued for «optimal» levels of financial repression (i.e., some, but not extensive governmental controls) on grounds of «market failure,» the notion that markets cannot be left to govern themselves efficiently in the absence of some minimal set of government-enforced rules and regulations. In this case, it would be important to balance the positive and negative effects of intervention in financial markets, for the evidence suggests strongly that low real interest rates, high bank reserve requirements, and relatively low levels of financial «depth» in an economy (i.e., a low level of monetization) are negatively correlated with real investment increases and GDP growth.⁹

A consensus has coalesced in the development economics literature around the view that financial repression is adopted in order for governments to exact resources from the financial sector with which to finance its own consumption, and to cover fiscal deficits. The consensus position focuses on the revenue effects of financial repression.¹⁰ The contention is that governments facing serious budget deficit prob-

⁷ Easterly, et al., *Public Sector Deficits and Macroeconomic Performance*.

⁸ Lance Taylor, *Structuralist Macroeconomics: Applicable Models for the Third World* (New York: Basic Books, 1983); Sweder Van Wijnbergen, «Credit Policy, Inflation, and Growth in a Financially Repressed Economy,» *Journal of Development Economics* 13:1-2 (1983): pp. 45—65, and «Interest Rate Management in LDCs,» *Journal of Monetary Economics* 12:3 (1983): pp. 433—452, and «Macroeconomic Effects of Changes in Bank Rates: Simulation Results for South Korea,» *Journal of Development Economics* 18:2-3 (1985): pp. 541—554; Edward F. Buffie, «Financial Repression, the New Structuralists, and Stabilization Policy in Semi-Industrialized Economies,» *Journal of Development Economics* 14:3 (1984): pp. 305-322; Sebastian Edwards, «The Order of Liberalization of the External Sector in Developing Countries,» Princeton Essays in International Finance, No. 156 (Princeton, New Jersey: Princeton University Press, 1984); Carlos Diaz-Alejandro, «Goodbye Financial Repression, Hello Financial Crash,» *Journal of Development Economics* 19:1-2 (1985): pp. 1-24; Alice H. Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989); Robert Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton, New Jersey: Princeton University Press, 1990); Laura Hastings, «Regulatory Revenge: The Politics of Free-Market Financial Reform in Chile,» in *The Politics of Finance in Developing Countries*, eds. Stephen Haggard, Chung H. Lee, and Sylvia Maxfield (Ithaca, New York: Cornell University Press, 1993).

⁹ See Anthony Lanyi and Rusdu Saracoglu, «Interest Rate Policies in Developing Countries,» IMF Occasional Paper No. 22 (Washington, D.C.: International Monetary Fund, 1983); The World Bank, *World Development Report: Financial Systems in Developing Countries* (Washington, D.C.: The World Bank, 1989); Nouriel Roubinin and Xavier Sala-I-Martin, «A Growth Model of Inflation, Tax Evasion, and Financial Repression,» *Journal of Monetary Economics* 35:2 (1992): pp. 275—301; William Easterly, «How Much Do Distortions Affect Growth?» *Journal of Monetary Economics* 32:4 (1993): pp. 187—212; Ross Levine, «Financial Structures and Economic Development,» *Revista de Analisis Economico* 8:1 (1993): pp. 67—89; and, «Financial Development and Economic Growth,» Policy Research Working Paper No. 1678 (Washington, D.C.: The World Bank, 1996); and Robert G. King and Ross Levine, «Finance and Growth: Schumpeter Might Be Right,» *Quarterly Journal of Economics* 108:3 (1993): pp. 717—738; and, «Finance, Entrepreneurship, and Growth: Theory and Evidence,» *Journal of Monetary Economics* 32:3 (1993): pp. 513—542.

¹⁰ Philip L. Brock, «Reserve Requirements and the Inflation Tax,» *Journal of Money, Credit, and Banking* 21:1 (1989): pp. 106-121; Valerie Bencivenga and Bruce D. Smith, «Deficits, Inflation, and the Banking System in Developing Countries: The Optimal Degree of Financial Repression,» *Oxford Economic Papers* 44:4 (1992): pp. 767-790; Alberto Giovanni and Martha de Melo, «Government Revenue from Financial Repression,» *American Economic Review* 83:4 (1993): pp. 953-963; Easterly, et al. *Public Sector Deficits and Macroeconomic Performance*; and Maxwell J. Fry, *Money, Interest, and Banking in Economic Development*, 2nd ed. (Baltimore, Maryland: The Johns Hopkins University Press, 1995).

lems have incentives to repress the financial sector. Repressive measures often are employed where tax systems are weak or porous, or there are significant levels of tax evasion.¹¹ Forcing artificial restrictions on financial institutions also serves to buoy the inflation tax base, thereby maintaining a steady flow of seigniorage to the government. Permitting financial systems to develop efficiently, on the other hand, would reduce the inflation tax base, along with the seigniorage opportunity.

There can be no doubt that financial repression can and does assist governments to cover fiscal deficits (that is, to live beyond their means). However, recent research questions the budget deficit financing rationale on the basis that institutional and historical-cultural differences between countries places the problem of policy choice into a variety of socio-political milieus, resulting in sharply different approaches to financial system regulation and development, even among countries facing substantially similar budget problems.¹² What can be said about Ukraine's specific circumstances?

Indicators of Financial Repression in Ukraine

During 1991-2000, Ukraine exhibited many of the classic symptoms of the financially-repressed economy. Until the mid-1990s, banks were mandated to make available low interest rate loans to priority enterprises and sectors, on a «directed credit» basis. In return, the banks were able to rediscount priority loans at the National Bank of Ukraine (NBU) on concessionary terms. This policy was initially an effort to stem the fall in output in key industrial sectors. As can be observed from Table 1, real interest rates were negative throughout much of 1993-96, and though they recurred less frequently in 1996 and after, they nonetheless provided a clear incentive for over-borrowing. Another measure of repression is the level of real discount rates used by NBU for its refinancing operations, since it formally served as a base for other rates until September 1996. It was therefore a more accurate reflection of policy than deposit or lending rates. Table 1 also presents real NBU refinancing rates, calculated as the nominal refinancing rate less the annualized rate of price inflation. In many periods, this rate, too, was negative. Such interest rate linkages and ceilings distort economic activity by discouraging savings, reducing incentives to deposit money with banks, and

¹¹ Roubinin and Sala-i-Martin (1992).

¹² Alberto Alesina and Howard Rosenthal, *Partisan Politics, Divided Government, and the Economy* (Cambridge, England: Cambridge University Press, 1995); Dennis P. Quinn and Carla Inclán, «The Origins of Financial Openness: A Study of Current and Capital Account Liberalization,» *American Journal of Political Science* 41:3 (1997): pp. 771—813.

stimulating demand for credit on the part of the worst borrowers.

Table 1. Indicators of Financial Repression in Ukraine, 1992–2000

Indicators of Financial Repression in Ukraine, 1992–2000											
Quarter	Annualized Quarterly Exponential Rates of Inflation	Average National Bank Re-finance Rates (APR %)		Average Commercial Banks' De-posit Interest Rates (APR %)		Actual Commercial Bank Reserve Ratio (%)	Required Commercial Bank Reserve Ratio (%)	Estimated Excess Bank Reserves	«Financial Depth» (M2 as % of Annualized GDP)	Percent Domestic Credit Held by NBU	Estimated Annual «Tax» Revenues on Domestic Credit from Repres-sion (% Annualized GDP)
		Nominal	Real	Nominal	Real						
1992-1Q	624	n.a.	n.a.	12,5	-611,5	n.a.	10–15	n.a.	18,30	8,7	133,2
2Q	200	n.a.	n.a.	20,8	-179,2	n.a.	10–15	n.a.	19,97	52,9	56,5
3Q	115	n.a.	n.a.	34,4	-80,6	n.a.	10–15	n.a.	21,89	61,5	30,9
4Q	172	80	-92	57,3	-114,7	56	10–15	43	27,01	55,0	54,0
1993-1Q	532	80	-452	79,2	-452,8	70	10–15	57	19,20	41,7	162,7
2Q	400	80	-320	133,2	-266,8	96	25	71	16,65	33,7	85,7
3Q	444	240	-204	212,4	-231,6	57	25	32	18,89	43,4	64,7
4Q	612	240	-372	210	-402	52	25	27	10,66	41,7	60,7
1994-1Q	140	240	100	279,6	139,6	53	25	28	9,84	50,9	20,9
2Q	60	240	180	274,8	214,8	49	15	34	11,44	50,4	38,1
3Q	48	161,8	114	148,8	100,8	58	15	43	17,00	53,3	23,6
4Q	400	248,4	-100	130,8	-269,2	49	15	34	10,67	36,4	49,0
1995-1Q	644	239,5	-397	128,4	-515,6	21	15	6	7,94	37,5	72,4
2Q	180	109,7	48	63,6	-116,4	20	15	5	8,64	36,7	16,0
3Q	92	66,7	-25	30	-62	17	15	2	7,98	43,1	8,7
4Q	76	97,6	21	43,2	-32,8	17	15	2	8,04	47,6	4,7
1996-1Q	76	102,4	26	49,2	-26,8	18	15	3	8,44	50,3	4,3
2Q	12	65,5	53	33,6	21,6	14	15	-1	8,60	49,2	3,5

Indicators of Financial Repression in Ukraine, 1992–2000												
Quarter	Annualized Quarterly Exponential Rates of Inflation	Average National Bank Re-finance Rates (APR %)		Average Commercial Banks' Deposit Interest Rates (APR %)		Actual Commercial Bank Reserve Ratio (%)	Required Commercial Bank Reserve Ratio (%)	Estimated Excess Bank Reserves	«Financial Depth» (M2 as % of Annualized GDP)	Percent Domestic Credit Held by NEU	Estimated Annual «Tax» Revenues on Domestic Credit from Repression (% Annualized GDP)	
		Nominal	Real	Nominal	Real							
3Q	32	40,1	8	26,4	-5,6	15	15	0	7,72	49,4	0,7	
4Q	16	39,9	24	26,4	10,4	13	15	-2	7,68	52,9	1,1	
1997-1Q	41,6	32,9	-8,7	22,8	-18,8	17	9	8	11,02	50,6	3,0	
2Q	6,8	23,4	16,6	19,2	12,4	17	11	6	11,49	48,9	1,9	
3Q	5,2	16,9	11,7	15,6	10,4	13	11	2	10,16	47,9	1,4	
4Q	12,7	24,9	12,2	16,8	4,1	15	11	4	9,68	50,7	0,5	
1998-1Q	6,7	40	33,3	19,2	12,5	12	15	-3	13,27	51,1	2,3	
2Q	5,2	45	39,8	20,4	15,2	12	15	-3	12,27	54,1	2,9	
3Q	12,1	80	67,9	24	11,9	15	16,5	-1,5	9,53	60,3	2,2	
4Q	48,8	79,4	30,6	26,4	-22,4	18	16,5	1,5	10,51	61,3	4,3	
1999-1Q	13,9	60	46,1	24	5,1	22	15	7	12,12	63,9	1,1	
2Q	18,9	50,2	31,3	20,4	1,5	25	15	10	13,18	64,6	0,1	
3Q	5,5	45	39,5	30	24,5	22	17	5	10,37	63,3	4,5	
4Q	31,9	45	13,1	20,4	-11,5	22	17	5	11,70	64,4	2,4	
2000-1Q	38,9	38	-0,9	16,8	-22,1	25	16	9		n.a	6,3	
2Q	29,6	29,3	-0,3	12	-17,6	22	16	6		n.a	4,7	
3Q	9,9	27,9	18	13,2	3,3	21	16	5		n.a	0,6	
4Q	14,3	27	12,7	12	-2,3	26	16	10		n.a	0,4	

Source: Ukrainian-European Policy and Legal Advice Centre, *Ukrainian Economic Trends* (various issues); International Monetary Fund, *Ukraine: Recent Economic Developments* (various issues); author's calculations.

High reserve requirements often are employed in conjunction with directed credit schemes in order to reduce availability of funds for low-priority, non-privileged enterprises and sectors. Excess bank reserves thus have the implicit effect of reducing banks' own funds available for discretionary, non-priority lending.¹³ Bank profitability also is constrained, as mandatory reserves normally are not interest-bearing. Funds subject to mandatory reserve requirements in Ukraine are paid in cash and kept in the individuals' banks correspondent account at the NBU with no interest payments.¹⁴ Where excess reserves are mandated, the central bank's assets may constitute a relatively large proportion of total assets in the financial sector. As can be observed in Table 1, the proportion of domestic credit held by the NBU in Ukraine exceeded 50 per cent in many quarters throughout 1996–2000, a clear indication of rather severe shortages of loanable funds.

High reserve ratios also serve to increase the «tax base» on which the inflation tax is levied. For a given level of inflation, other things being equal, a higher reserve requirement results in higher inflation tax revenues. Governments which rely upon the inflation tax to finance budget deficits are likely to maintain high reserve requirements in order to buoy revenues, rather than to reduce inflation.¹⁵ However, it is also true that overall inflation can be reduced in the short run by raising sharply bank reserve requirements. To the extent that the inflation tax can be passed on to depositors, the real volume of deposits will shrink. A credit squeeze can occur, as the inflation tax reduces the real supply of loanable funds. Under these conditions, banks will have difficulty meeting normal credit demands from new and existing clients. Real output can fall, should banks be unable to meet the needs of worthy borrowers. In this way, economies can experience periods of both accelerating inflation and decelerating GDP growth, a condition which afflicted Ukraine throughout the 1990s.

There are obvious difficulties in measuring the degree of repression that may be present. Financial repression may also employ implicit instruments, which are inherently difficult to detect and measure. Financially-repressed economies may also exhibit characteristics which are not due to repression *per se*. The lack of maturity in the financial sectors of transition economies is an impediment to evaluating the actual amount of deviation from market-clearing interest rates. Since there were only rudimentary financial markets in Ukraine in the

¹³ Fry, *Money, Interest, and Banking in Economic Development*.

¹⁴ Resolution of the National Bank of Ukraine, «On Formation of Mandatory Reserves for the Ukrainian Banking System.» (31 December 1996).

¹⁵ Fry, *Money, Interest, and Banking in Economic Development*.

1990s, we can only estimate the «tax» which the government derived from financial repression. One approach is to calculate the difference between the world interest rate (taken as the long-run real rate in OECD countries, 0.9 percent) and the average domestic real rate, multiplied times the volume of domestic credit. This is an admittedly crude measure, but an effective one. The last column in Table 1 provides this measure for Ukraine. Throughout 1992-95, such «tax revenues» were quite high relative to GDP, but fell to more moderate levels beginning in 1995.

Another measure of repression is «financial depth,» defined as the ratio of money supply (M2) to GDP. This is employed as a rough proxy for more sophisticated measures of the level of financial intermediation, which cannot easily be calculated in the case of a transition economy. Financial depth is consistently found to be lower in financially-repressed economies than in market economies.¹⁶ As can be seen in Table 1, M2 as a percentage of annualized nominal GDP fell dramatically in Ukraine from 1992-96. This indicates the extent of disintermediation in the wake of Ukraine's hyperinflationary episode. Others have also observed Ukraine's difficulties in attracting funds to the banking sector.¹⁷

Directed credit policies also require financial repression in order to work, since informal channels would develop spontaneously to reallocate administratively-channeled capital subsidies to higher-yielding private uses. Governments therefore typically intervene to segment financial markets by restricting the flow of funds between subsidized and non-subsidized firms and sectors.¹⁸ Rules for credit rationing therefore almost always accompany elaborate directed crediting policies. There are five major types of directed crediting policy instruments, all of which involve rationing to one extent or another: (1) subsidized interest rates; (2) differential rediscount rates; (3) direct budgetary subsidies; (4) credit floors and ceilings on banks' lending operations; and (5) use of specialized financial institutions. To one extent or other, Ukraine employed all five of these in the 1990s.

Research suggests strongly that preferential crediting of specific firms and industries is the primary objective and motivation of governments that engage in financial repression.¹⁹ Stemming output falls and pre-

¹⁶ Robert J. Barro, «Economic Growth in a Cross-Section of Countries,» *Quarterly Journal of Economics* 106 (1991): pp. 407—443; King and Levine, «Finance and Growth» and, «Finance, Entrepreneurship, and Growth.»

¹⁷ Viktor A. Yushchenko, «Monetary Policy in the Transition to a Market Economy,» Ch. 5 in *Economic Reform in Ukraine: The Unfinished Agenda*, eds. Anders Aslund and Georges de Ménéil (Armonk, New York and London: M. E. Sharpe, 2000), pp. 94—110.

¹⁸ Subsidized crediting distorts factor prices and does not discriminate against inefficient investment projects.

¹⁹ Haggard, et al., *The Politics of Finance in Developing Countries*; Arvid J. Lukauskas, «The Political Economy of Financial Restriction: The Case of Spain,» *Comparative Politics* 27:1 (1994): pp. 67—89.

venting mass unemployment tend to be more acute concerns for governments than are budget deficits. On this view, selective credit schemes are not merely a secondary consequence of a government's policy of interest rate controls. Rather, directed crediting itself constitutes the policy choice. This implies that, in the case of Ukraine, financial repression has been employed as the means to absorb losses of state enterprises, and only secondarily as a means to finance fiscal deficits. It is, therefore, a component of the government's expenditure policy.²⁰

Evidence of Excessive Consumption by the Ukrainian State

The Yushchenko Hypothesis

President of Ukraine Viktor Yushchenko lays the blame for Ukraine's economic woes on excessive consumption by the state sector relative to the combined private-household sector.²¹ Since 1994, the diversion of extensive amounts of resources to satisfy the government's requirements has constrained growth of the private sector, promoted centralization of output, and driven legitimate private competitors into the shadow sector. Yushchenko regards this process as, «the main reason behind all out macro- and micro-economic difficulties,» and, more importantly, «the chief threat to the establishment of democracy and... national security of Ukraine.»²² There is some merit to this argument. Table 2 presents a revised and updated version of Yushchenko's analysis, which was originally published in 1998. Let us retrace his logic.

In the face of a rapid decline in real GDP, the growth in state sector consumption greatly exceeded that of the household sector throughout the 1990s. This can be seen in Table 2, which indicates that real final consumption of the state sector exceeded that of the household sector by an average of 30 percent from 1990–99. Yushchenko classifies consumption by the state sector as «nonproductive». This is not quite fair, but his larger point is well taken. That is, the centralized economy has survived the demise of the command economy, and it has done so aided by a state which employed repressive means to accomplish its ends, at the expense of the private sector.

Many of Ukraine's economic pathologies are direct outgrowths of this state of affairs, including: undermonetization of the economy; the stunted development of the banking sector; enterprise li-

²⁰ Of course, direct budget subsidies are the ultimate zero-interest means of capital-rationing to enterprises.

²¹ Viktor Yushchenko and Viktor Lysytsky, «Excessive State Consumption: The Main Instability Factor for Ukraine,» *Ukrainian Economic Trends* (June 1998): pp. 122–131.

quidity problems; growth of the shadow sector; poor government tax receipts; and low investment levels. There is also a bias — apparent in the data — towards protecting state-owned and former state enterprises, which are considered «too big to fail.» At first this policy was pursued by issuing large volumes of preferential credits, especially in 1992–94. The result was hyperinflation, which only aggravated the trend towards demonetization. With the liquidation of the hyperinflation and currency reform in September 1996, this game was at an end. However, as we shall see, a new dynamic was set in motion in 1997–99: hidden inflation through the vehicle of «money surrogates.» This approach has permitted the government to retain «soft» budget constraints on enterprises, while at the same time claiming credit for tight monetary policy.

The Repression of Household Liquidity, 1988–96

We can provide further confirmation of the Yushchenko hypothesis through an examination of the government's efforts to boost production during the period immediately preceding the currency reform of 1996. The following analysis indicates strongly that the government reduced significantly household liquidity, transferring much of it to the enterprise sector. The theoretical justification for examining sectoral liquidity is provided by the socialist theory of money, a theory to which many Ukrainian officials apparently subscribed in 1992–96.²²

²² This observation is based on the author's meetings and interviews with, among others, former Minister of Finance Hryhorii Piatachenko, First Deputy Finance Minister Mykola Syvulskiy, and Deputy Minister of the Economy Volodymyr Naumenko. National Bank of Ukraine officials were not immune to the persistence of Soviet-era thinking about the role of money in the economy. For instance, the author attended a conference on «The Economy of Ukraine: Today and Tomorrow» hosted by Deputy Premier Victor Pynzenyk in August 1993, where a senior official of the NBU stated flatly that the Ukrainian inflation was not a monetary phenomenon, but the result of distortions in retail pricing brought about by monopoly enterprises.

²² *Ibid.*, p. 122.

Table 2. Indicators of Economic Centralization in Ukraine, 1990–2000 (Millions of Hryvnia, Unless Otherwise Noted)

Indicator or Other Item	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Estimate 2000
Real GDP Index (1990 = 100)	100,0	93,4	94,0	76,1	47,0	42,6	42,2	44,4	43,1	42,2	45,5
GDP Deflator (1990=100)	1,00	1,92	33	1 117	13 761	71 533	114 162	125 846	142 474	180 492	230 272
State Sector Consumption:											
Final Consumption by State Sector (UAH mln.)	0,27	0,52	6	236,99	2 330,69	11 595,45	17 738	20 368	23 600	24 100	27 600
Growth in State Consumption (Multiples of 1990)	1,00	1,93	32,74	877,74	8 632	42 946	65 696	75 437	87 407	89 259	102 222
Real Final Consumption in State Sector	0,27	0,271	0,268	0,21	0,169	0,162	0,155	0,162	0,166	0,134	0,120
Growth in Real State Consumption (Multiples of 1990)	100,0	100,3	99,2	78,6	62,7	60,0	57,5	59,9	61,3	49,5	44,4
Household Sector Consumption:											
Final Consumption by Household Sector (UAH mln.)	0,92	1,56	21,12	653,5	5 331,39	27 093,74	43 469	50 600	58 400	73 000	88 000
Growth in Household Consumption (Multiples of 1990)	1,00	1,696	22,957	710,326	5 794,989	29 449,717	47 248,913	55 000,000	53 478,260	79 347,826	95 652,174
Real Final Consumption in Household Sector	0,92	0,813	0,64	0,585	0,387	0,379	0,381	0,402	0,41	0,404	0,382
Growth in Real Household Consumption (Multiples of 1990)	100,0	88,4	69,6	63,6	42,1	41,2	41,4	43,7	44,6	44,0	41,5
Economic Centralization Index (Ratio of Real Final Consumption of the State Sector Over Real Final Consumption of Households)	100,0	113,5	142,5	123,6	148,9	145,6	138,9	137,1	137,4	112,5	107,0

Sources: Adapted from Viktor Yushchenko and Viktor Lysytsky, «Excessive State Consumption: The Main Instability Factor for Ukraine», *Ukrainian Economic Trends* (June 1998); revised and updated by the author. GDP Deflator: UEPLAC, *Ukrainian Economic Trends* (March 2001), table 1.1, p. 6. Consumption Data: 1990–93: IMF (March 1996), table 5, p. 33. 1994–95: IMF (October 1997), table 2, p. 55. 1996–97: IMF (May 1999), table 13, p. 76. 1998–2000: IMF (January 2001), table 3, p. 6.

Expressed succinctly by economist Gavin Peebles, the theory of socialist money is that, unlike the kind of fiat money used in other economic systems, households in the socialist economy have recourse to the state for the discharge of debts owed to them, which are represented by the paper money issued by the state.²³ Indeed, «the whole logic underlying this monetary system is that the currency has value as long as the state can supply all the goods people want in the correct assortment, at stable prices.»²⁴

Consequently, some economists have measured the money supplies in socialist countries in terms of the relationship of the money stock to the annual flow of retail goods supplied through state stores.²⁵ Indigenous economists have also employed this measure.²⁶ Portes, on the other hand, disagrees with this approach on theoretical grounds.²⁷ In any event, there is nothing conceptually incorrect with the view that financial assets held by households in socialist economies are debts of the government and the government-owned banking system. Further, concerning its applicability in Ukraine, it is hard to imagine that policy makers in this recently socialist country would be so quick to abandon their previous conceptions about the role of money in the economic system. Quite to the contrary.²⁸

²³ Gavin Peebles, *A Short History of Socialist Money* (Sydney, Australia: Allen & Unwin, 1991), p. 29.

²⁴ *Ibid.*

²⁵ I. Fogaras, «The Population's Savings Deposits in the European CMEA Countries,» *Acta Oeconomica* 21:1-2 (1978): pp. 141-150; Igor Birman and Roger A. Clarke, «Inflation and the Money Supply in the Soviet Economy,» *Soviet Studies* 37:4 (1985): pp. 494-504; Jan Winiecki, «Portes Ante Portas: A Critique of the Revisionist Interpretation of Inflation Under Central Planning,» *Comparative Economic Studies* 27:2 (Summer 1985): pp. 25-51; Jan Winiecki, *The Distorted World of Soviet-Type Economies* (London and New York: Routledge, 1988); Gavin Peebles, «On the Importance of Establishing the Inverse Relationship Between Open Inflation and Household Liquidity Growth Under Socialism: A Critique of Jan Winiecki's Savings Deposit Data,» *Comparative Economic Studies* 28:4 (1986): pp. 85-91.

²⁶ See, for instance, Qixian Zeng, «Comments on Consumption and Savings,» *Social Sciences in China* 4:4 (1983): pp. 137-163.

²⁷ Richard Portes, «The Theory and Measurement of Macroeconomic Disequilibrium in Centrally Planned Economies,» Ch. 2 in *Models of Disequilibrium and Shortage in Centrally Planned Economies*, eds. Christopher Davis and Wojciech Charemza (London: Chapman and Hall, 1989).

²⁸ For instance, former Finance Minister Hryhorii Piatachenko persisted in arguing, as late as March 1994, that Ukraine's monetary problems were an instance of the «goods-money-goods» formula described in detail by Karl Marx in *Das Kapital*. Indeed, this «applies to [Ukraine] straight out of the book.» A further indication of the government's attitudes at the time were provided by Piatachenko's rather telling assertion that «there is nothing bad about the fact that in 1993 the National Bank of Ukraine issued KBV 25 trillion in cash.» See Serhiy Borysenko, «Piatachenko Defends 1994 Budget,» *IntelNews*, 2 March 1994, p. 4.

Table 3. Ukraine – Sectoral Liquidity Indicators, 1988–1996

Period	Annual Retail Sales (Nominal)	Liquidity Expressed as a Percent of Annual Retail Sales									
		Entire Economy			Enterprise Sector				Household Sector		
		M1	M2	M3	D	S	S + D	S + D + F	DSD	HM	% Cash
1988	61	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1989	67	1,295	1,694	1,694	0,301	0,027	0,328	n.a.	1,001	1,231	18,8
1990	78	1,201	1,677	1,677	0,356	0,031	0,387	n.a.	0,961	1,163	17,3
1991	132	1,333	1,993	1,993	0,517	0,095	0,613	0,614	1,125	1,381	18,5
1992	1456	1,502	1,719	1,844	0,896	0,161	1,057	1,183	0,217	0,662	67,2
1993	43824	0,767	0,868	1,077	0,421	0,084	0,504	0,713	0,072	0,364	80,2
1994	283038	0,658	0,765	1,115	0,343	0,069	0,412	0,762	0,073	0,353	79,2
1995	1196400	0,391	0,44	0,572	0,149	0,027	0,177	0,309	0,044	0,264	83,2
1996	1569600	0,358	0,421	0,505	0,12	0,025	0,145	0,228	0,065	0,277	76,7

Notes:

(1) M1 = Cash in Circulation + Demand Deposits; M2 = M1 + Savings Deposits; M3 = M2 + Foreign Currency Deposits.

(2) For the Enterprise Sector: D = Demand Deposits; S = Savings Deposits; F = Foreign Currency Deposits.

(3) For the Household Sector: DSD = Demand Deposits + Savings Deposits; %Cash = Cash as a Pct. of Total Monetary Holdings.

Source: Retail sales data are from OECD, «Short-Term Economic Indicators – Transition Economies,» various issues. Money supply data are from Marcin Luczynski and Oleg Novoselsky, «Ukraine in Numbers Year End 1996 Review,» Ukrainian Legal and Economic Bulletin (March 1997), table 8, p. 40. Liquidity Indicators are the author's calculations.

Movements in the ratio of household monetary holdings to retail sales (and the same for enterprises), therefore, may provide important clues as to the general drift of government economic policy. Two measures of household liquidity are pertinent, which we will label *DSD Liquidity* and *HM Liquidity*. *DSD Liquidity* measures household liquidity as a function of demand and savings deposits (hence, the designation *DSD*). *HM Liquidity* will be discussed presently. Peebles estimates that, in Soviet times, there was rapid growth in *DSD Liquidity*, from around.15 of retail sales in 1960, to over.80 by 1989.²⁹ Consistent with Peebles' estimation of the long-term trend, the present study finds that Ukrainian household *DSD Liquidity* was in the.95 to 1.00 range in 1989–90, on the eve of the Soviet collapse. (See Table 3.)

²⁹ Peebles, *A Short History of Socialist Money*.

The year 1991 appears as a watershed period, with household *DSD Liquidity* falling rapidly thereafter. Table 4 provides the quarterly data, based on a rolling four-quarters' worth of retail sales, in the interest of comparability. As can be seen, household liquidity fell by half in just one year, 1992, reaching its previous 1985 level. It fell by half again by mid-1994, which approximates Peebles' estimate of the 1975 level in the USSR. Not surprisingly, the proportion of household monetary assets held in the form of cash rose during this period, from 18.5 percent at the time of independence to 80 percent in late 1993, where it has hovered since then, in a narrow band of 82 ± 3 per cent.

Table 4. Ukraine - Quarterly Sectoral Liquidity Indicators, 1991-1996

Period	Annual Nominal Retail Sales (Rolling 4 Quarters)	Liquidity Expressed as a Proportion of Annual Retail Sales									
		Entire Economy			Enterprise Sector				Household Sector		
		M1	M2	M3	D	S	S + D	S + D + F	DSD	HM	% Cash
1991-4Q	132	1,333	1,993	1,993	0,517	0,095	0,613	0,614	1,125	1,381	18,5
1992-1Q	198	1,324	1,897	1,897	0,562	0,148	0,71	0,711	0,88	1,187	25,9
2Q	343	1,785	2,23	2,25	0,987	0,203	1,19	1,214	0,563	1,055	46,6
3Q	689	1,447	1,746	1,833	0,724	0,19	0,914	1,001	0,334	0,833	59,6
4Q	1456	1,502	1,719	1,844	0,896	0,161	1,057	1,183	0,217	0,662	67,2
1993-1Q	3006	1,281	1,518	1,815	0,872	0,192	1,064	1,362	0,156	0,454	65,7
2Q	5848	1,111	1,361	1,929	0,722	0,212	0,934	1,503	0,134	0,427	68,5
3Q	14147	1,613	1,843	2,191	1,172	0,207	1,379	1,728	0,093	0,464	79,9
4Q	43824	0,767	0,868	1,077	0,42	0,084	0,504	0,713	0,072	0,364	80,2
1994-1Q	86425	0,555	0,642	0,773	0,247	0,052	0,299	0,429	0,069	0,343	79,6
2Q	140910	0,549	0,668	0,772	0,273	0,073	0,346	0,45	0,08	0,322	75,2
3Q	206929	0,662	0,778	0,901	0,376	0,123	0,449	0,571	0,075	0,329	77,2
4Q	283038	0,658	0,765	1,115	0,343	0,027	0,177	0,762	0,073	0,353	79,2
1995-1Q	434100	0,521	0,618	0,907	0,231	0,06	0,291	0,579	0,066	0,327	79,9
2Q	625600	0,548	0,616	0,849	0,236	0,039	0,275	0,508	0,057	0,342	83,4

Period	Annual Nominal Retail Sales (Rolling 4 Quarters)	Liquidity Expressed as a Proportion of Annual Retail Sales									
		Entire Economy			Enterprise Sector				Household Sector		
		M1	M2	M3	D	S	S + D	S + D + F	DSD	HM	% Cash
3Q	885100	0,474	0,525	0,722	0,199	0,03	0,229	0,426	0,043	0,295	85,5
4Q	1196400	0,391	0,441	0,572	0,149	0,027	0,177	0,309	0,044	0,264	83,2
1996-1Q	1366200	0,357	0,407	0,519	0,128	0,027	0,158	0,269	0,041	0,249	82,1
2Q	1498300	0,358	0,406	0,502	0,115	0,023	0,141	0,234	0,046	0,268	82,8
3Q	1583900	0,345	0,393	0,479	0,112	0,022	0,134	0,22	0,049	0,259	81,2
4Q	1569600	0,358	0,421	0,505	0,12	0,025	0,145	0,228	0,065	0,277	76,7

Notes:

(1) M1 = Cash in Circulation + Demand Deposits; M2 = M1 + Savings Deposits; M3 = M2 + Foreign Currency Deposits.

(2) For the Enterprise Sector: D = Demand Deposits; S = Savings Deposits; F = Foreign Currency Deposits.

(3) For the Household Sector: DSD = Demand Deposits + Savings Deposits; %Cash = Cash as a Pct. of Total Monetary Holdings.

Sources: Retail sales are from OECD, «Short-Term Economic Indicators - Transition Economies,» various issues. Money supply data are from Marcin Luczynski and Oleg Novoselsky, «Ukraine in Numbers Year End 1996 Review,» Ukrainian Legal and Economic Bulletin (March 1997), table 8, p. 40. Liquidity Indicators are the author's calculations.

DSD Liquidity provides only a partial view of household monetary assets, however, since it excludes cash holdings. *HM Liquidity* provides a much broader picture, incorporating cash as well as demand and savings deposits as a ratio of annual retail sales. According to Peebles, *HM Liquidity* reached 1.054 in the Soviet Union by 1988, having risen from .182 on an all-union basis in 1960. Peebles' figures are roughly consistent with the present estimate of 1.16 to 1.23 for 1989-90 in Ukraine. Here, too, we witness Ukrainian *HM Liquidity* falling precipitously after 1991, more than halving by the end of 1993. Both household liquidity measures decline from 1991-96.

Before proceeding to a discussion of what the decline in household liquidity means with reference to the government's policy, we must examine the trends in enterprise liquidity. Three measures were developed, which include: enterprise demand deposits (D), demand deposits plus savings deposits (S + D), and demand and sav-

ings deposits plus foreign currency deposits (S + D + F). For the lattermost measure, foreign currency deposits have been ascribed entirely to the enterprise sector on the basis that enterprises were in a much more favorable position than households to earn large quantities of foreign exchange from export trade. This is not an unreasonable assumption.³⁰ In any case, the intent was to examine whether the accumulation of foreign currency would have served to cushion adverse changes in enterprise liquidity during this period. It turns out that it was of only transitory benefit. Indeed, as Table 4 shows, enterprise liquidity, which initially rose during 1992, the period in which household liquidity collapsed, after the hyperinflationary period of late 1993 enterprise liquidity also fell rapidly, reaching approximately household levels by late 1995. Enterprises were therefore late to suffer the ill effects of inflation, as their liquidity remained at robust levels until the second half of 1993. Hyperinflation, it seems, spared no one.

The general drift in Ukrainian financial policy can be discerned from an examination of the government's attempts in 1992-93 to restore the previous balance between incomes and output levels, by consciously transferring liquidity from households to the enterprise sector. This served the perceived policy imperative of wringing inflation out of the retail trade sector while at the same time stemming the fall in output. In fact, the output collapse was viewed by many in the Ukrainian economic establishment as itself *the problem*, rather than the inevitable consequence of the inefficient organization of industry under the former Soviet regime.

The policy tools to pursue this objective remained available to the authorities throughout this period, owing to the still rather rigid walls of separation between the official household and enterprise sectors, which were reinforced by Ukraine's credit policies and heavy regulation of the retail sector. That Ukraine should squeeze household liquidity so is not surprising in light of the traditional Soviet method of suppressing inflation through manipulation of retail prices. Since in a socialist economy retail sales are the main channel for recalling excess currency, the Ukrainian govern-

³⁰ It is exceedingly difficult to measure the quantity of foreign currency held by households. Almost none of it is deposited in banks. According to officials at the NBU, foreign currency deposits «on the record,» as it were, are almost entirely in enterprise accounts.

ment entered into a delicate «tightrope act,» attempting to strike the appropriate balance between wages and retail goods availability. This task was made all the more difficult by the new inflationary dynamic which had been set in motion in 1992-93, the causes of which the authorities apparently chose to remain largely ignorant.

Directed Credits to Industry

Directed credit policies increase the financial system's fragility while reducing its flexibility. There is no evidence that they improve the efficiency of resource allocation; quite to the contrary.³¹ By their nature, directed credits place relatively severe restrictions on bank loan portfolios. Banks are directed to channel to certain enterprises or sectors a specified amount of total lending (or total assets). Such direction tends to segment financial markets, segregating enterprises according to their risk and economic potential, providing poor risks with incentives to borrow more. This can give rise to a serious «moral hazard» problem in the banking industry.³² Interest rate ceilings on deposits also tend to encourage and promote development of bank cartels. Direct government intervention in the form of lavish privileges (e.g., exclusive franchises or priority access to refinancing at the central bank) for favored banks and restrictions on others also can have this effect.

Governments can also own banks outright. Public sector ownership of lending institutions impairs financial flexibility due to their bureaucratic management, lack of innovation, and the undue influence of political factors in lending decisions. As Maxwell Fry points out:

A major problem with virtually all specialized financial institutions... springs from the fact that they are established to lend to borrowers that [other] financial institutions... have avoided. Hence, specialized financial institutions are set up deliberately to lend to high-risk borrowers.³³

Government banks generally hold substantial proportions of non-performing loans.³⁴ While generally un-

³¹ Maxwell J. Fry, «Flexibility in Finance,» Ch. 10 in *The Flexible Economy*, ed. Tony Killick (London and New York: Routledge, 1995), pp. 297-324. This citation appears on p. 306.

³² McKinnon, *The Order of Economic Liberalization*, Ch. 7, pp. 84-91.

³³ Fry, «Flexibility in Finance,» p. 306.

³⁴ The World Bank, «Financial Intermediation Policy Paper,» (Washington, D.C.: The World Bank, Industry Department, July 1985); David L. Gordon, «Development Finance Companies, State and Privately Owned:

derstated, the true volume of default losses appears to be enormous.³⁵ Further, loan loss provisions are inadequate in most cases, so that these institutions can themselves become problems for their governments, as they load up the asset side of their balance sheets with substandard and non-performing loans. In Ukraine, the banking sector started out on shaky ground. Even before many state banks were converted to joint stock companies, they inherited bad loans to state enterprises. Under such circumstances, foreclosure would threaten the asset solvency of the banks themselves.³⁶ These are problems that most governments are anxious to avoid.

There is evidence of high levels of segmentation and concentration in Ukraine's banking industry. The «top ten» banks dominate Ukraine's financial system in the 1990s, despite the high levels of fragmentation which have been increasing over time. Further, the most prominent banks enjoy many privileges owing to their ties with the government and the NBU. The three largest banks in Ukraine were formerly state-owned, specialized banks. Confidence in the Ukrainian banking system has been consistently low, and this is reflected in the extremely low ratio of demand deposits and money supply to GDP. These measures – indicators of «financial depth» of the economy – are traced over 1991–99 in Graph 1 (Annex 1). As can readily be seen, the Ukrainian economy is terribly undermonetized.

Commercial banks were too small in the 1990s to supply the credit needs of the industrial sector. Consequently, the NBU filled this role, and continued to do so even after the currency reform of 1996. In fact, the total amount of domestic credit held by the National Bank reached almost 65 per cent in 1999, up from 50 per cent in the third quarter of 1996. Graph 2 (Annex 2) traces the proportion of domestic credit held by the NBU from 1992–2000. This graph indicates that the NBU performs economic functions that go beyond (and in some cases, fall short of) the traditional functions of central banking.

An examination of the growth in official net NBU credit to the general government helps a great deal

A Review,» World Bank Staff Working Paper No. 578 (Washington, D.C.: The World Bank, 1993); Fry, «Flexibility in Finance.»

³⁵World Bank, «Financial Intermediation Policy Paper.»

³⁶Raj M. Desai and Katharina Pistor, «Financial Institutions and Corporate Governance,» in *Between State and Market: Mass Privatization in Transition Economies*, eds. Ira W. Lieberman, Stilson S. Nestor, and Raj M. Desai (Washington, D.C., The World Bank, 1997).

to fill in the story. The NBU remains the chief supplier of credit to the general government. Graph 3 (Annex 3) tracks the trend in official NBU lending to government over the period 1992-2000. Official net NBU credit to general government increased eight-fold from 1995-2000 in nominal *Hryvnia*. As a proportion of GDP, NBU credit to government almost tripled, from a little over five per cent in 1995-97, to an average of 12-15 per cent in 1999-2000. These credits are not in themselves inflationary. However, the government has also turned to the NBU to absorb the vast majority of its T-bill issues, due to problems in refunding Ukrainian T-bills in the open market. As a consequence, by 1999, the NBU had again assumed the institutional role of «chief lender to the government.» This only increased the fragility of the financial system. It also made it difficult to avoid inflationary financing of budget deficits in the event of an external shock, such as a global economic downturn, or a national emergency. Just as critical for the state of the Ukrainian financial system in the short-run, there was ample evidence that the government was seriously «crowding out» private borrowing.

«Crowding Out» Firms from the Credit Market

An increasing share of banks' assets was held in government securities in the 1990s. Insofar as many banks are under-capitalized, and therefore tend to shy away from risk-taking, Ukrainian T-bills appeared as a more desirable alternative to lending in the real sector. The data in Table 5 indicate that the government was absorbing an increasing share of lending in the late 1990s (until 1999, when the trend abated somewhat). As a consequence, less credit was available for the rest of the economy, a phenomenon known as «crowding out.» It is extremely difficult to know how much of the flow of bank resources into the T-bill market would have otherwise been channeled to the private sector. The massive amounts of capital flight serve as one indicator of Ukrainian investors' low level of confidence in the domestic credit markets. What we can conclude, however, is that the vigorous use of T-bills for budget deficit financing has displaced private investment

funds, raised interest rates, and reduced access to private financing, generally.

Private lending is risky for Ukrainian banks. Credit analysis is hampered by enterprises' Byzantine accounting practices, the difficulty in securing loans via collateral, and the effort involved in monitoring the financial fortunes of bank clients. Investment in T-bills was viewed as a less risky, more profitable alternative. The crowding out of private enterprises also had the consequence of rendering Ukrainian banks less competitive than they otherwise might have been, in that such passive investments provide little incentive to improve commercial lending expertise.

**Table 5. Evidence of «Crowding Out»
Credit Volume and T-bill Purchases, 1995–99**

Years	1995	1996	1997	1998	1999
Credit of the Banking System (Including the NBU, in Hryvnia and Foreign Currency)	9 853	13 611	17 497	25 032	33 937
In percent of GDP	19,4	16,9	18,7	24,4	26,7
Change in Credit:	6 156	3 747	3 886	7 535	8 905
Increase in Lending to Govern- ment	3 000	1 985	2 133	6 229	5 382
Share of Total (%)	48,7	53,0	54,9	82,7	60,4
Increase in Lending to Firms and Households	3 156	1 762	1 753	1 305	3 523
Share of Total (%)	51,3	47,0	45,1	17,3	39,6
Net Increase in Stock of T-bills (Excl. Interest Due)	263	1 956	5 409	5 006	-2 037
Memorandum: Nominal GDP	50 831	80 510	93 365	102 543	127 126

Source: International Monetary Fund, Ukraine: Recent Economic Developments (1996, 1997, 1999); Ukraine: Statistical Appendix (2001); author's computations.

Insofar as the government was unable to fill the budget deficit gap with foreign lending, and considering that domestic purchases of T-bills had fallen off dramatically by the end of the decade, the NBU has been forced into the role of «lender of last resort.» Graph 4 (Annex 4) indicates the changing role of the NBU in budget deficit financing from 1995,

when T-bills were first issued, to 1999. By the start of 2000, the NBU held some 88 per cent of the outstanding T-bill debt, up from 66 per cent in 1998. Hence, although the NBU is constitutionally and legally prohibited from directly financing state budget deficits, it has the primary role in financing government operations. The budget surplus of 2000 obviated the need for placement of new T-bill debt, but the NBU continued to hold the overwhelming majority of outstanding government securities. This has thrust the NBU into the key role in both private and public finance, and made the bank a direct player in domestic credit markets, as opposed to its more appropriate role as a functionally disinterested regulator.

The Expanding Use of Surrogate Money, 1997–2000

After the currency reform of 1996, the domestic monetary situation was much improved. The *Hryvnia* remained relatively stable against the U.S. dollar and other hard currencies, and the T-bill market was absorbing ever-larger amounts of government debt. For a few years, the government was able to finance the state budget deficit in a non-inflationary manner. However, the enterprise sector remained perpetually starved for cash, the banking industry being too small and underdeveloped to supply even its working capital requirements. Consequently, enterprises turned to an array of more-or-less informal means of financing operations, which can collectively be referred to as «surrogate money,» the presence of which constitutes a form of latent (but suppressed) inflation.

At the end of the 1990s, a majority of Ukrainian enterprises remained liquidity-constrained. To fill the need for cash, they increasingly resorted to non-monetary means to settle their transactions. Many of these enterprises were loss-makers, and therefore unable to generate working capital out of their normal operations. Reliance upon the government to supply their needs via direct subsidies – as in the early independence days – was no longer possible; budget «sequestration,» the practice of postponing or canceling budgeted appropriations in order to balance the state budget, did a good job of matching expenditures to revenues, but magnified the

cash squeeze on enterprises. This prompted many firms to build up significant wages, tax and other payments arrears. These are essentially a form of surrogate money, as it were: a way to finance operations «by other means.»

Money substitutes may include mutual overdue debts, netting out tax liabilities, use of quasi-money (i.e., bank notes, treasury bills, and IOUs), and barter. According to Poser, a critical means to evaluate the process of transition is to track the proportion of transactions that are settled on a monetary basis.³⁷ By the end of the 1990s, surrogate money was in broader use than cash in settling transactions in Ukraine. In 1997, over UAH 30.3 billion of industrial sales was paid in cash, or just 45.3 per cent of total sales of industrial output.³⁸ In 1998, the figures were UAH 31.6 billion, and 41.9 per cent, respectively. Indications are that, in agriculture, the volume of transactions settled in terms other than cash was even higher. In an undermonetized economy, like Ukraine's, barter transactions, payments arrears of various kinds, and money surrogates act as substitutes for cash. They help to adjust the volume of output to market demand, as surely as short-term borrowing (i.e., use of commercial paper) would in a fully-developed market economy.

One way to look at the Ukrainian situation is to understand that the government itself has provided the productive sector with credit, albeit through the «back door,» by facilitating creation of monetary surrogates. This serves the foreign economic policies of the state. The authorities have been clever in pursuing a very tight, anti-inflationary policy, but have managed at the same time to maintain «soft budget constraints» on enterprises using non-monetary means of financing. Use of money substitutes thus serves to adhere to the letter of credit agreements with the IMF and other international lenders, but largely violates the spirit of such restrictions. The emergence of alternative means of payment in the economy since 1995 also suggests that the inflationary processes in Ukraine assumed characteristics which are vastly different from those that pertained in the period 1991–96.

³⁷ J. A. Poser, «Monetary Disruptions and the Emergence of Barter in FSU Economies,» *Communist Economies and Economic Transformation* 10:2 (1998): pp. 157-77.

³⁸ Ihor Zhyliayev, «Surrogate Money in the Ukrainian Economy: The Scale and the Dynamics,» *Ukrainian Economic Trends* (March 1999): pp. 50-67.

Basic Money Substitutes

Wages are the main item that enterprises pay in cash. The relative volume of wages arrears, plus wages paid in-kind, is smaller than other components of the stock of enterprise arrears. Tax arrears pose no special problem for enterprises, as mutual settlements (i.e., offsets) and non-cash payments have grown. The use of non-marketable bills of exchange (essentially private IOUs) has also increased. Based on negotiated prices, these permit firms to «manage» profits on individual transactions. Further, they can be assigned to third parties in multi-party transactions, thereby serving as a (limited) instrument of credit expansion outside the banking system, and largely hidden from the NBU's view. Essentially, bills of exchange are «private money.»

Payments Arrears

There were considerable volumes of overdue debts among Ukrainian enterprises at the end of the 1990s. Firms have received *de facto* loans by habitually paying their bills late (if at all). Graph 5 (Annex 5) tracks inter-enterprise arrears from 1992-2000. Such debts have exceeded 100 per cent of GDP since the first quarter of 1998, climbing as high as 170 per cent of GDP in 1999. The chronic nature of these debts suggests that actual prices of transactions probably are well below those reported by the enterprises involved. The fact that this state of affairs has persisted is a strong indication of its usefulness to enterprises in expanding credit, and evading taxes. It also indicates that enterprises have alternative means of financing their working capital requirements.

Mario Gara raises the possibility that the build-up of payments arrears is an alternative means of achieving output equilibrium operating alongside the classical and Keynesian varieties.³⁹ Government direct and indirect price controls and imperfectly competitive markets permit sellers to fix exces-

³⁹ Mario Gara, «The Emergence of Non-Monetary Means of Payment in the Russian Economy,» *Research Papers in Russian and East European Studies*, No. REES99/2, The University of Birmingham, December 1999, pp. 19-23.

sively high prices relative to demand. Arrears can operate as means to permit the value of demand to equate to the value of supply, «since buyers pay just for a share of what they actually purchase.»⁴⁰ Should all transactions have been settled in cash, there is no doubt that recorded inflation would have been higher. Sellers, of course, know this, and mark up their prices accordingly, which raises the prices of barter (and partial barter) transactions over those settled in cash.

Another consequence of inter-enterprise arrears is that estimates of the actual GDP level are increasingly overstated during the decade of the 1990s. To convey some sense of the magnitude of error, the increase in payables between enterprises in 1999 and 2000, was +UAH 58.75 billion, and +UAH 26.07 billion, respectively. These amounted to 45.2 per cent, and 15.1 per cent of GDP during these two years. Of this amount, perhaps one-half represents real value-added, so that some 7.5-22.5 per cent of official nominal GDP appears to be affected by this phenomenon. This estimate is even before consideration of the growth of the shadow sector, where the magnitude of error in the official GDP statistics becomes enormous.

Some causes of high repayment arrears include: unproductive investments; defective loan policies; misapplication of funds; ineffective loan supervision; lackluster loan and debt recovery efforts; and lack of industrial discipline and responsibility. Enterprises throughout the 1990s were unable to avail themselves of the means employed by the government to relieve the payments crisis on the budget: the «write-off.» Significant amounts of enterprises' arrears to the state were written off or restructured in the late 1990s (5.8 per cent of GDP in 1999; 3.7 per cent in 1998).⁴¹ Enterprises appeared to be unwilling to sustain the losses that would accompany such write-offs, nor the write-down in current assets which that would involve. (The government also was unwilling to permit it.)

An interesting problem in the late 1990s was that enterprise payables consistently exceeded receivables since 1993, and the spread grew steadily after 1994. Graph 6 (Annex 6) traces net payables from

⁴⁰ *Ibid.*

⁴¹ Zhylyayev, «Surrogate Money in the Ukrainian Economy.»

1993-2000. The rise in net payables is an indication that the circular pattern of arrears was broken in some way. Thus, there has been a net inflow of credit to the enterprise sector, via the budget (through subsidies), and mechanisms of informal financing. Budget subsidies are an insidious problem in that credit is implicitly reallocated from economically-viable enterprises that need financing, to inefficient, loss-making, liquidity-constrained firms that can't survive without it. In effect, the state acts as a financial intermediary, extending interest-free credit to unworthy borrowers, and transferring the interest costs and default risk to the state budget (where everyone pays for it).

Inter-enterprise debts have all but completely displaced bank lending as the preferred source of enterprise financing. Commercial bank credit to enterprises has fallen dramatically during the 1990s, from a high of over 130 percent in early 1993, to less than 10 percent by mid-1995. As can be seen in Graph 7 (Annex 7), it has hovered at around 5 percent since early 1997. The implication is clear: weaknesses in the banking sector have driven enterprises to seek financing informally, from special pleadings to the state on the one hand (voluntary), and from other enterprises on the other (more or less involuntary). In either case, serious distortions were introduced into the financial system which would hamper the necessary development of the lending capacity of banks. In other words, it is not necessarily the case that there is little demand for credit, but that it was satisfied through means other than banks.

Barter Transactions

The extent of barter transactions in industry is given by sector in Table 6. The magnitudes vary by sector, and exceeded 40 percent in total in 1997 and 1998, before falling to around 33 percent in 1999, and less than half of its 1998 level by early 2000 (the result of efforts by the Yushchenko government). Enterprises have certain incentives to engage in barter. Barter trade can be employed as an additional source of credit.⁴² Accepting in exchange for goods other goods which are not of immediate use to

⁴² Gara, «The Emergence of Non-Monetary Means of Payment in the Russian Economy.»

the seller induces a voluntary increase in inventory investment. There are storage and other carrying costs involved, not to mention the loss in liquidity. The amount and cost of such credit is measured as a function of the lag between the initial transaction and the time that the holder either sells the goods, exchanges them, or uses them in its own operations.

Table 6. Ukraine – Extent of Barter Operations in Industry, by Sector, 1997–2000 (Percent of Total Sales Revenues)

Period	Total	Power Generation	Fuels Industry	Ferrous Metals	Nonferrous Metallurgy	Chemicals and Petrochemicals	Machine-Building	Wood and Paper	Construction Materials	Light Industry	Food Industry
1997											
Jan-Jun	35,7	33,2	36,6	42,7	35,1	38,8	45,8	53,3	54,6	33,6	15,0
Jan-Sep	39,2	43,9	44,7	41,2	33,9	50,1	48,4	54,3	57,8	33,8	16,1
Jan-Dec	42,4	45,8	50,1	46,5	36,8	49,0	46,7	54,3	59,5	36,7	21,8
1998											
Jan-Mar	41,0	48,1	46,7	38,6	20,1	47,2	46,0	49,9	64,2	40,1	22,1
Jan-Jun	41,7	50,6	48,1	40,0	20,5	48,5	45,5	52,1	64,3	42,5	20,9
Jan-Sep	41,4	50,3	47,9	39,9	21,2	46,9	46,1	51,1	64,7	41,8	20,4
Jan-Dec	42,5	47,0	57,8	40,8	20,2	46,2	42,9	48,6	65,8	40,0	24,8
1999											
Jan-Mar	34,8	33,4	40,7	33,9	17,8	47,8	42,4	45,0	69,9	35,7	16,6
Jan-Jun	34,6	32,1	41,0	34,5	17,6	47,6	41,4	42,9	67,3	35,3	16,7
Jan-Sep	33,4	33,0	37,7	32,0	20,1	44,7	41,6	39,2	68,9	34,6	16,8
Jan-Dec	32,7	29,0	39,0	31,4	20,6	41,8	40,9	36,6	68,6	33,3	19,9
2000											
Jan-Mar	19,8	12,2	31,7	15,1	12,3	25,9	33,6	29,9	58,2	26,4	10,7
Jan-Jun	19,2	18,4	28	12,9	12,8	23,9	30,7	27,3	54,0	24,3	11,1

Source: IMF, Ukraine: Recent Economic Developments, IMF Staff Country Report No. 99/42 (May 1999), Table 17, p. 80; IMF, Ukraine: Statistical Appendix, IMF Staff Report No. 01/28 (January 2001), table 7, p. 10.

It is not clear whether barter transactions involve different prices than cash transactions. In the case of Russia, Commander and Mumssen argue that the process of barterization is driven mainly by the

demand for credit.⁴³ They found that barter deals result in prices that are much higher than cash prices, but that the relative prices of goods involved in such exchanges are unaffected. Probably, some of these transactions are forced, in that one or both parties would not otherwise have sold or purchased the goods. Barter involves somewhat higher risks than monetary transactions, and transactions costs are higher in that the quality and tradability of the goods to be bartered must be assessed, and the right terms of trade determined.⁴⁴

Barter and arrears appear to be interrelated. Arrears can be viewed as an inter-enterprise settlement mechanism, a sort of involuntary credit extended from the payee to the payor. In this vein, barter overcomes the inherent danger that arrears – viewed as another form of credit – will not be paid. Barter *de facto* ensures the completion of contracts, hence, «multiplication of the number of such deals does not lead to a potentially explosive accumulation of debts but only means expansion of the area of trade.»⁴⁵ A deleterious consequence, however, is that an increasing share of enterprise capital is tied up in immobilized form in inventories of finished and unfinished products. Barter trade does nothing to increase firms' liquidity. Rather than being a means to overcome the non-payments crisis, then, barter trade represents a further deepening of the crisis.

Conclusion

There is ample evidence that the Ukrainian government used the instruments of financial repression throughout the 1990s – sometimes vigorously, but at other times less so – as means to finance its own consumption, and to dampen the inflationary impacts of its policies. It did so in a way that also avoided imposing a «hard budget constraint» on enterprises. The use of administered interest rates, bank reserves, regulations on foreign exchange, forced purchase of government debt by commercial

⁴³ S. Commander and C. Mumssen, «Understanding Barter in Russia,» Working Papers No. 37, European Bank for Reconstruction and Development, London, 1999.

⁴⁴ S. Williamson and R. Wright, «Barter and Monetary Exchange Under Private Information,» *American Economic Review* 84:1 (March 1994): pp. 104-123; Y. S. Kim, «Money, Barter, and Costly Information Acquisition,» *Journal of Monetary Economics* 37:1 (February 1996): pp. 119-142.

⁴⁵ S. Aukutsionek, «Some Characteristics of Transition Economies (II),» *Communist Economies and Economic Transformation*, No. 3 (September 1997): pp. 289-336. This citation appears on p. 312.

banks, and the government's own specialized banks supported the government's own appetite for spending at the expense of development of the private sector.

In order to reduce the inflationary pressures generated by its policies, the state has tolerated (and even facilitated) growth of «money surrogates» as an alternative form of credit. Such substitute monies include the build up of overdue debts, tax arrears, netting out mutual debts, use of non-marketable bills of exchange, and barter transactions. At the end of the decade, growth of these more or less informal means of credit expansion had changed the inflationary dynamic in Ukraine, placed the NBU in the position of chief lender to both government and the private sector, perpetuated the fragility of the banking industry, and rendered the economy more vulnerable than ever to macroeconomic shocks.

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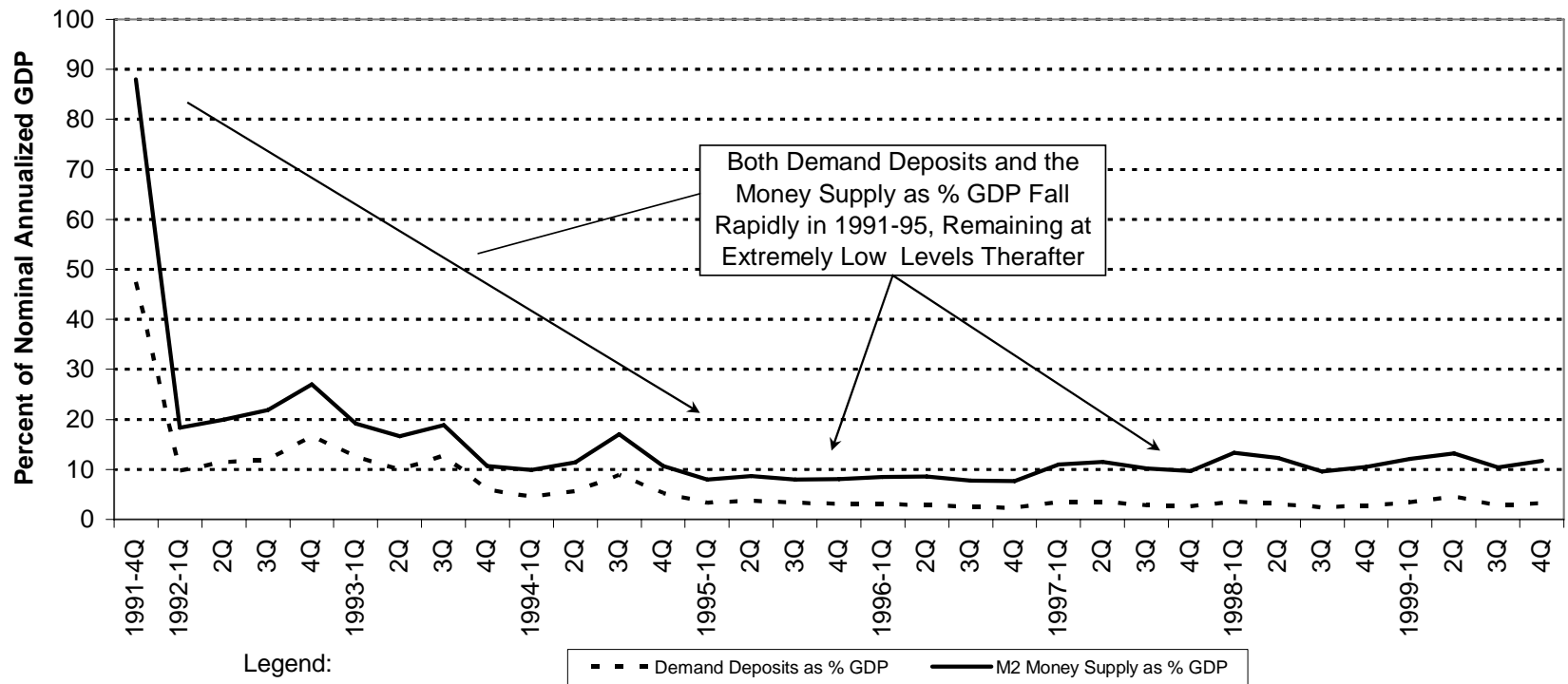
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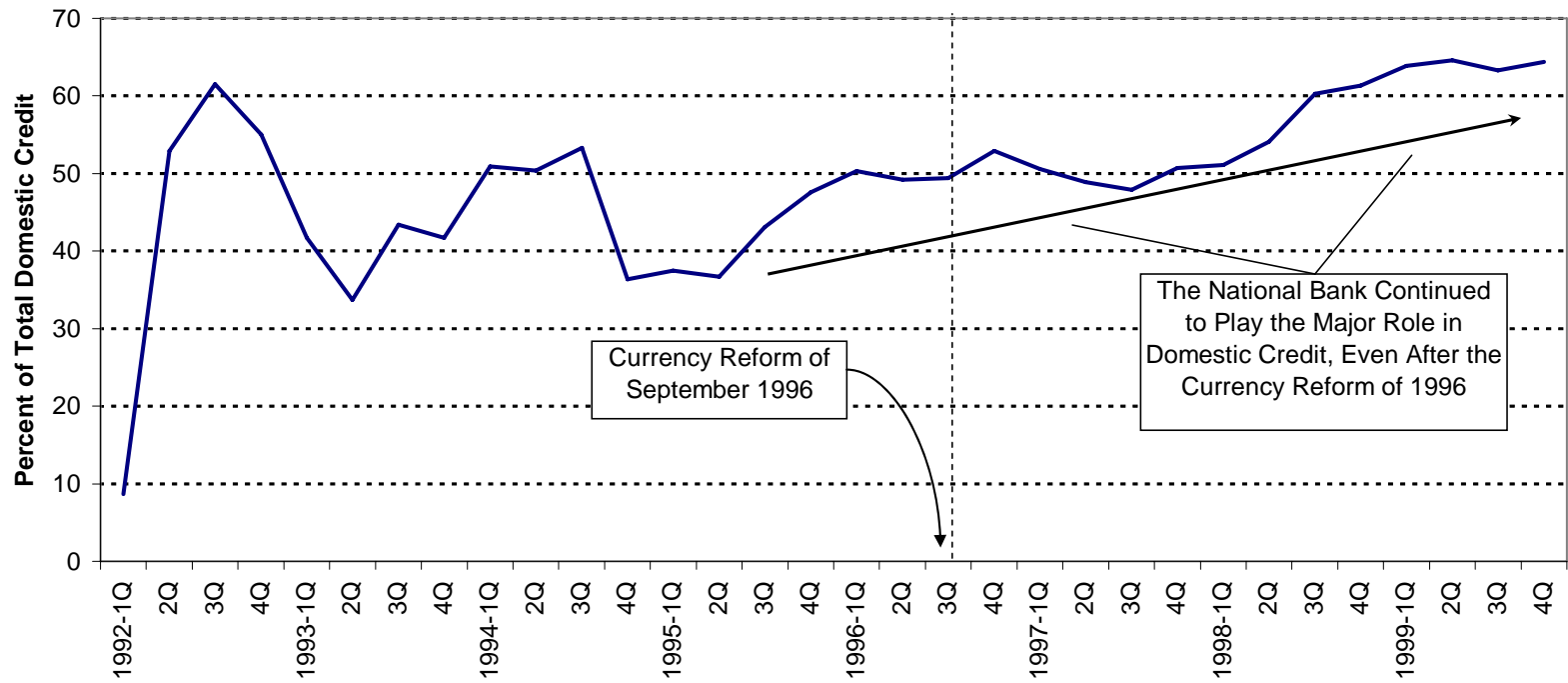
Graph 1

Financial Depth of Ukrainian Economy, 1991-99



Graph 2

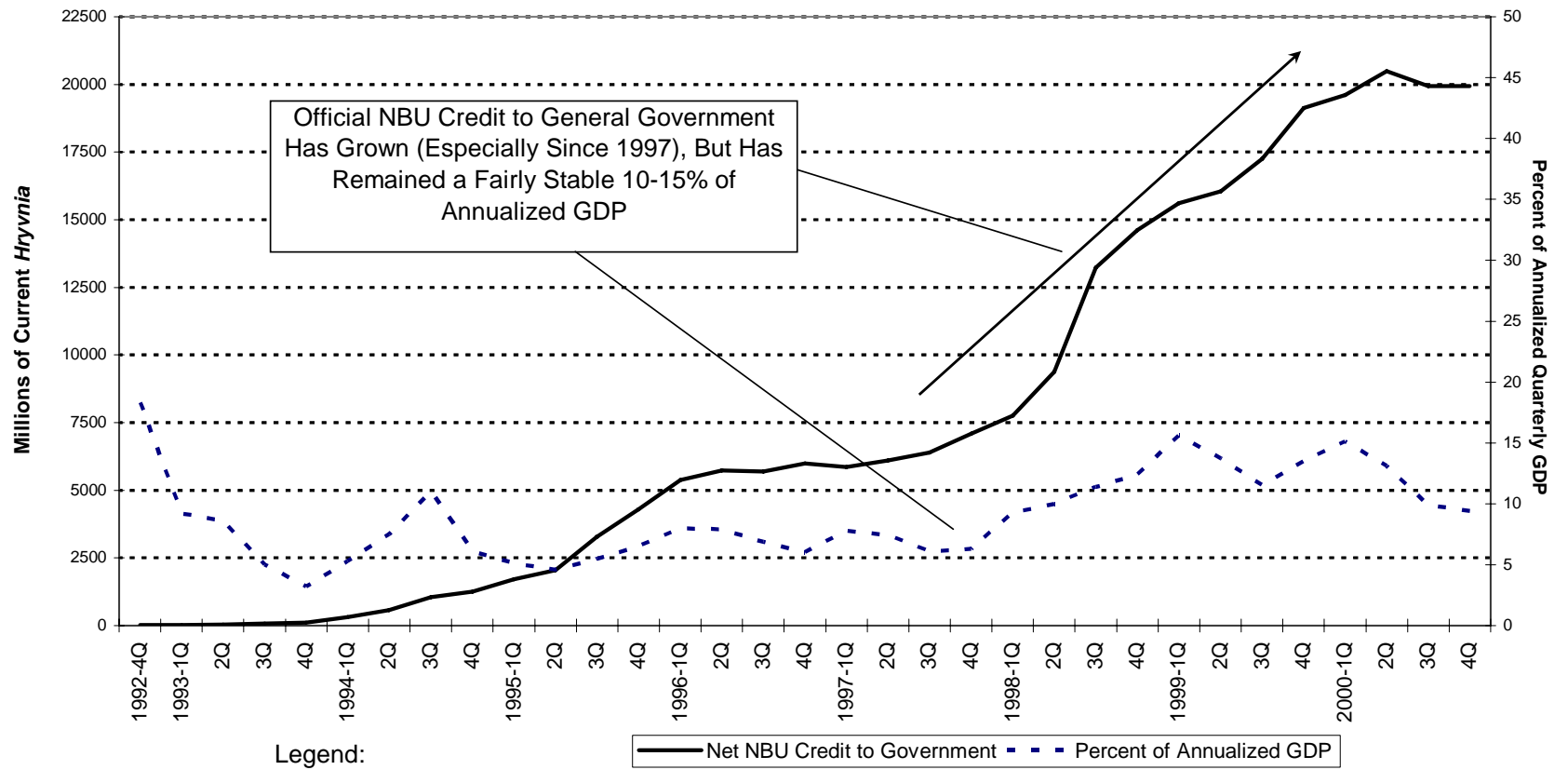
Percent of Domestic Credit Held by NBU, 1992-1999



Annex 3

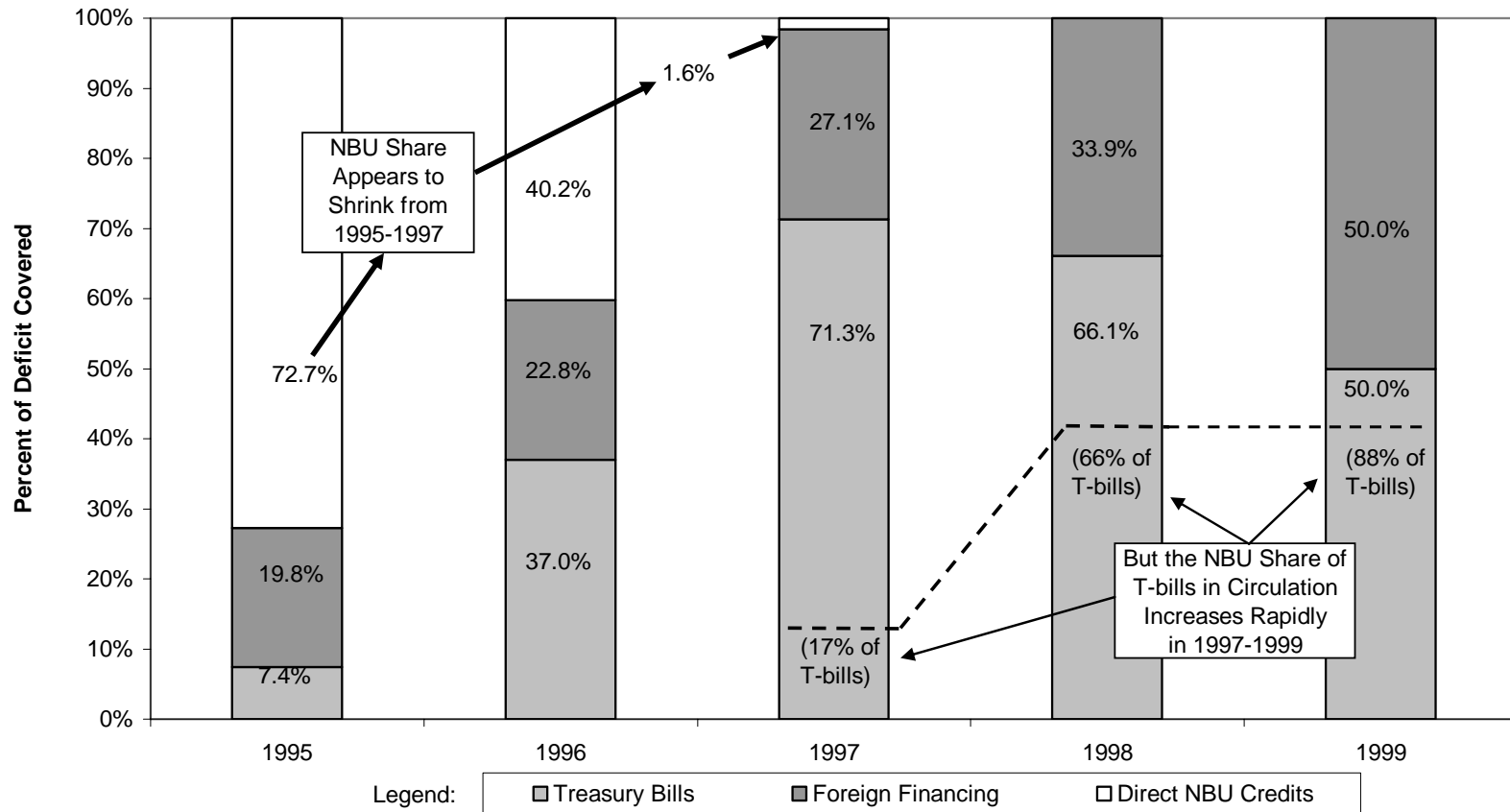
Graph 3

Growth in Official Net NBU Credit to General Government, 1992-2000



Graph 4

Changing Role of the NBU in Budget Deficit Financing, 1995-99

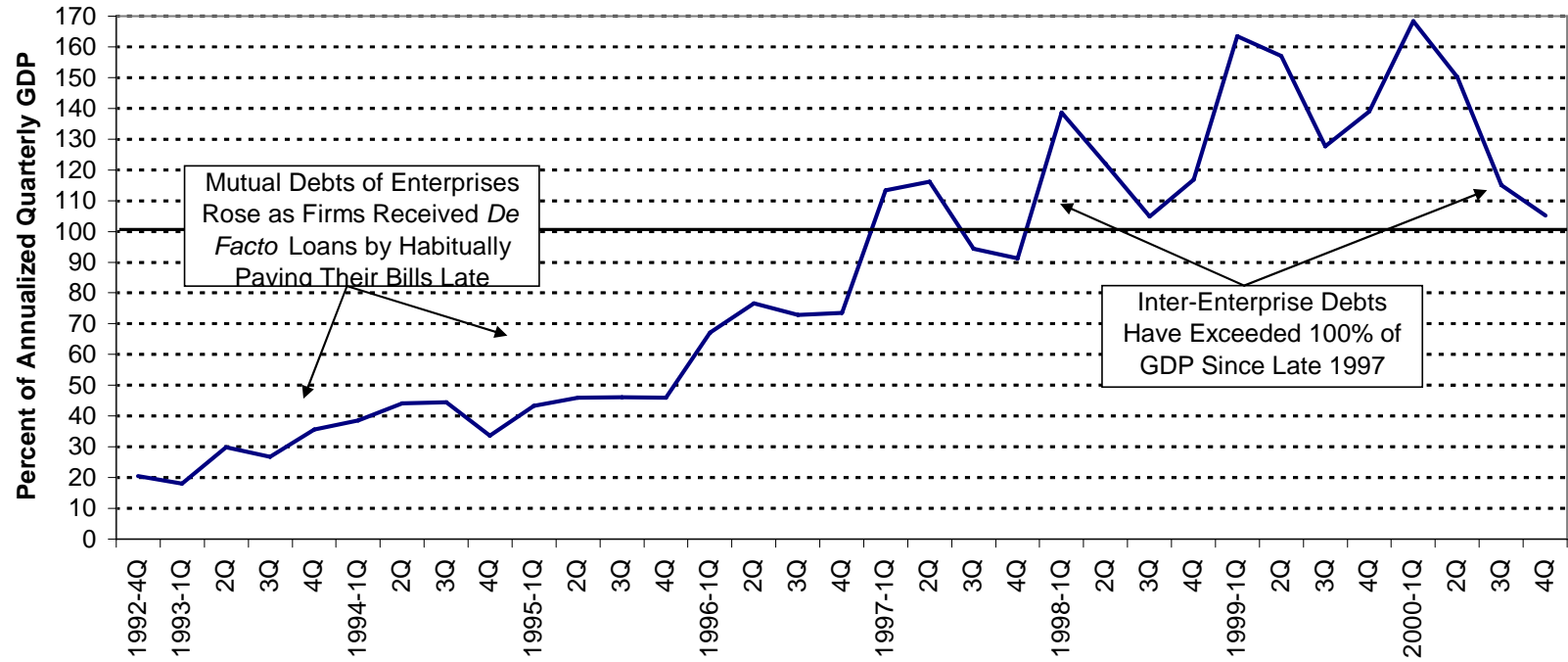


Source: Data are from John Hansen and Vira Nativska (eds.), *Economic Growth with Equity: Ukrainian Perspectives* (Washington, D.C.: The World Bank, 1999), graph 10, p. 74.

Annex 5

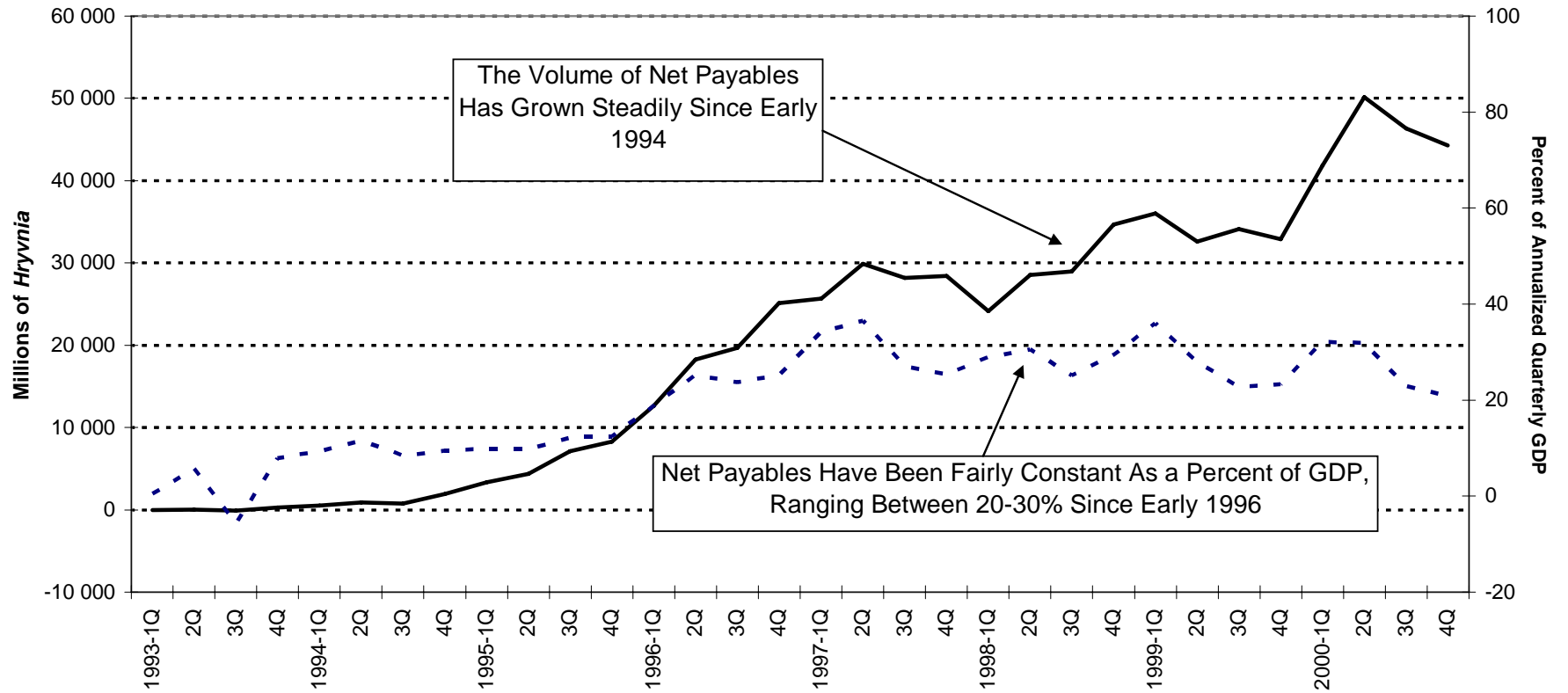
Graph 5

Growth in Inter-Enterprise Arrears, 1992-2000
(Accounts Payable as Percent of GDP)



Graph 6

Trend in Net Enterprise Payables, 1993-2000
(Payables Net of Receivables)



Annex 7

Graph 7

Ratio of Commercial Bank Credits to Enterprise Receivables, 1993-2000

