The question of how to stabilize the Russian economy has dominated economic and political debates these last two years. It is certainly still one of the most important point on the agenda for all different political forces in Russia. In spite of some fluctuations the very policy launched early 1992 by Yegor T. Gaïdar, under the influence of different western advisers, still predominates. Frequently described by its opponents as a "monetarist" policy, the stabilization strategy used till now belongs to what is called in economist slang "heterodox stabilization" even if in its implementation the heterodox side has been less than apparent.

There is probably no hotter or no more important discussion than why this strategy gave so bad a result, and what could be done to achieve stabilization. No alternative program could be drawn without an assessment of what has been done, and what were assumptions, shared both by western advisers and Russian reformers, on which this strategy was grounded.

A/ ASSESSING THREE YEARS OF TRANSITION.

The Gaïdar's policy was not implemented continuously from its inception early January 1992. Economic policy has been fluctuating. However, major options of the Gaïdar's program never have been reversed, as far price liberalization, opening, or privatization are concerned.

It seems now that actual results of liberal-minded reformer strategy have not developped before winter 1993/1994.
1) Continuity and changes in economic policy.

There is then a dimension of continuity even if Gaïdar itself has been replaced by V.Tchernomyrdin by end 1992, only to go back as a Minister of the economy in the 25th April 1993 referendum wake.

Some different phases can then be described. From January to June 1992, we have the first and "purest" attempt to implement what was called a shock therapy, with Gaïdar as an acting Prime-Minister. Growing economic difficulties, and particularly blossoming of arrears and emerging local currencies (as the notorious Krasnoyarsk's *augram*)\(^1\), stopped this first attempt. By June, Gaïdar himself began to alter his policy, mainly by weakening the credit constraint.

From June to December 1992, the government, still headed by Gaïdar, tried to patch out some of the previous policy effects. Under Gaïdar personal orders the Central Bank increased credit emission to alleviate the arrears problem. A kind of compromise with the so-called "centrist" group was attempted, with an economic round table during late summer 1992. It foundered when Gaïdar made clear that the round table was only a mean to gain some political support and not an attempt in devising a new economic policy. Early December he delivered an astonishingly aggressive speech in the Parliament, destroying any chance left till there of a compromise and uniting centrist and conservative against him. This led to a vote ousting him and the appointement of Victor Tchernomyrdin as Prime-Minister.

Phase three lasted from December 1992 to April 1993. After some indication that the new government could commit itself to a more centrist policy it was quickly evident that Eltsin's influence was predominant, putting Gaïdar back to the front, first as an adviser then as a minister. Economic policy became more and more paralysed as the political crisis developed fast as a tug of war between the President and the Parliament. Conservative, once a minority, became more and more influential as it became clear that executive power has no willingness to share any part of the decision-making process and was not listening to the Parliament. Referendum preparation led Eltsin to make extensive promises on the economic side.

Phase four initiated after the Referendum. Once assessed as a major victory both for Yeltsin and economic radicals, it led to a progressive rebirth of the initial shock therapy, with Gaïdar and Fyodorov clearly leading the game. Not only a credit constraint was implemented, but the government soon stopped to pay some of the voted budget expenditures, leading to a new increase of arrears by the end of 1993. With the heavy handed dissolution of the old Parliament in October, a widespread feeling of victory infected economic radicals. It was seriously cold washed by December 1993 election results.

Phase five was a direct result of these elections. A two pronged vote, it gave a clear victory to conservatives and neo-centrists, with a disquieting rise of nationalists (the notorious LDPR

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of Zhirinovsky’s fame), and a crushing blow for Gaidarites, reduced to 15.3%. By January 1994, both Gaidar and Fyodorov have left the government, and Chernomyrdin was emerging as a new leader. Yeltsin’s own legitimacy was twice eroded. Once by the very result of the vote for the new Duma and second by the fact that a strong suspicion of mishandling constitutional referendum results quickly developed.

Chernomyrdin began to act more and more as the new Russian strong man, achieving some kind of compromise with former communist, agrarian and neo-centrist, but without altering too much the economic policy. However, a fast increase of the production fall, and a general deterioration of the economic situation could lead to a sixth phase by fall 1994.

2) Economic and social results.

A transition strategy is to be assessed on many fronts; obviously macroeconomic situation is extremely important. However, transition is not to be confused with stabilization, even if some authors are putting the fight against inflation at the very first place. Transition is above all a process of economic and social restructuring and has to be assessed as such. No one is to forget that the ultimate aim of transition is to create a framework for a stable and sustained growth. We agree here with a general assessment made by Richard Portes on transition policies in Eastern and central Europe:

*The initial jump in the price level is always greater than expected, sometimes so much that significant inflation persists; but the rate does come down rather taking off into hyperinflation.*

(...)Although macroeconomic stabilization, where necessary, comes first, it received excessive attention in Poland and elsewhere.

The need of a growth-oriented economic policy is now quite well acknowledged for economies in transition. Economic results have been disappointing. Both inflation and depression have plagued Russian economy. In the same time structural changes have been weak, and sometimes in the wrong direction. Deterioration of the social situation is a matter of growing concern as it feeds growing anti-reform feelings among the population.

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2 A. Aslund, "Lessons of the First four years...", op.cit. We will developpp this issue more thoroughly in the next chapter.


The so-called liberal policy didn't stop the inflation and led to a very large depression. For some times price liberalization was even unable to make shortages disappear, both on consumer and producer markets\(^5\). Inflation dynamic is extremly intricate and controversial and will be dealt with in the latter chapter dedicated to the stabilisation problem. What can be said here is that never Russia was experiencing a kind of hyperinflation as in post-WWI Germany. Inflation was high but stable. But production fall was no less a problem. The very extent of the depression is a problem by itself.

\(^5\) J.Sapir, "Formes et nature de l'inflation", op.cit.
b- Production fall
1990, index 100

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>92,00%</td>
<td>76,50%</td>
<td>65,10%</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>83,50%</td>
<td>53,40%</td>
<td>50,80%</td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>95,30%</td>
<td>87,80%</td>
<td>84,30%</td>
<td></td>
</tr>
<tr>
<td>Transport &amp; communications</td>
<td>95,40%</td>
<td>76,90%</td>
<td>64,00%</td>
<td></td>
</tr>
<tr>
<td>Services and trade</td>
<td>93,00%</td>
<td>63,50%</td>
<td>59,50%</td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>99,70%</td>
<td>93,20%</td>
<td>88,30%</td>
<td>82,20%</td>
</tr>
<tr>
<td>Oil &amp; Gaz</td>
<td>94,80%</td>
<td>88,40%</td>
<td>79,40%</td>
<td>68,30%</td>
</tr>
<tr>
<td>Coal</td>
<td>87,80%</td>
<td>82,90%</td>
<td>74,80%</td>
<td>64,30%</td>
</tr>
<tr>
<td>Steel</td>
<td>92,60%</td>
<td>77,60%</td>
<td>65,60%</td>
<td>49,30%</td>
</tr>
<tr>
<td>Non-ferrous</td>
<td>91,20%</td>
<td>67,40%</td>
<td>52,90%</td>
<td>46,10%</td>
</tr>
<tr>
<td>Chemicals and petrochemicals</td>
<td>93,80%</td>
<td>72,90%</td>
<td>57,30%</td>
<td>37,30%</td>
</tr>
<tr>
<td>Machine building and metal working</td>
<td>90,00%</td>
<td>76,60%</td>
<td>64,60%</td>
<td>36,90%</td>
</tr>
<tr>
<td>Wood &amp; paper</td>
<td>91,00%</td>
<td>77,70%</td>
<td>63,00%</td>
<td>41,50%</td>
</tr>
<tr>
<td>Construction materials</td>
<td>97,40%</td>
<td>77,50%</td>
<td>64,60%</td>
<td>43,80%</td>
</tr>
<tr>
<td>Light Industry (textile)</td>
<td>90,80%</td>
<td>63,60%</td>
<td>48,70%</td>
<td>28,30%</td>
</tr>
<tr>
<td>Food processing</td>
<td>91,00%</td>
<td>76,10%</td>
<td>69,40%</td>
<td>53,60%</td>
</tr>
</tbody>
</table>

* Estimates, medium range.

Some reasons could be invoked to explain it. Quite obviously, part of the production was corresponding to economic deformations linked to the Soviet system. Once this last destroyed, part of the production was just redundant. One could also argue that opening, by revealing inefficiencies in supply structure, would necessarily lead to another production drop. Problem here is to know if the Russian economy had (and has) both means and time to adapt. If not the opening shock, as explained before, is unduly destructive.

Table 3
Factors limiting enterprises production:
Answers in percentage of the number of respondents in the sample group

<table>
<thead>
<tr>
<th></th>
<th>Agriculture</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of demand for products</td>
<td>26</td>
<td>41</td>
</tr>
<tr>
<td>Shortage of raw materials and semi-finished products</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>High prices for above items</td>
<td>59</td>
<td>54</td>
</tr>
<tr>
<td>Lack of Finance</td>
<td>71</td>
<td>62</td>
</tr>
<tr>
<td>High Taxes</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>Managerial Errors</td>
<td>18</td>
<td>4</td>
</tr>
</tbody>
</table>

Average of four surveys made in 1993. Each respondent could not give more than three factors.

Fall of intra-CIS and former COMECON trade can also be invoked to explain the production fall. Nonetheless it has to be said that intra-CIS trade destruction was largely the result of the lone rider policy adopted by Gaïdar's government. It is then not an exogeneous problem.
The sharp decrease in investment, which has been so evident since 1989 is certainly exerting some influence. In many activities infrastructures are so decayed that technical stoppages are more and more frequent adding their own weight to the depression. A more subtle influence can be traced out. Lacking investments translate into rising production costs and then are making some activities more and more vulnerable to foreign competition and adverse influence of energy prices.

One can summarize some arguments by saying there is a dispute between a keynesian and a schumpeterian explanation of the depression. The keynesian focuses on the demand side contraction; however a more sophisticated view integrates the very effect of income distribution induced by the systemic change. The schumpeterian view focuses on the destruction necessary to restore a better balance between activities after decade of unbalanced growth. One can also add perverse effects of price liberalization and of the credit policy. Arguments do not stop here and will be more thoroughly examined in the chapter dedicated to the stabilization issue.

It is also important to understand what factors are reducing enterprises activity. If we follow results of a sample made by a Russian research team, we still have a mix of the old economic system factors and of new ones. As it can be seen, shortages still are a relevant factor for enterprises. The demand crunch is of course important, but less than effects of relative-prices changes (high prices for raw materials and semi-finished products was concerning mainly energy) and a general lack of finance. From a microeconomic perspective, the depression can then be linked to the temporal discrepancy between relative-prices change and technological structure changes, and to the general disorder in the financial sector. These two points could have been forecasted, as it is obvious in an economy such the Russian one that technological structures will be considerably less flexible than prices. By the same token, disorder in the financial sector could be seen as a major problem two years ago. A very interesting phenomenon here is the emergence of a kind of relation between inflation and unemployment.

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7 L.Taylor, "The Market Met its Match: Lessons for the Future from the Transition's Initial Years" op.cit..


To a large extent unemployment has been internalised. Absence of social protection outside of enterprise restricts considerably any lay-offs possibility. To avoid social explosion, enterprise managers prefer to reduce working days, and then the monthly wage, to direct lay-offs. It is then a mistake to think that unemployment didn't develop in Russia, but the form was specific, linked to inexistence of some market institutions, like an external social assistance system. Internalised unemployment blossomed quickly in 1993, mainly during the second half of the year, as shown by data on lost workdays as percentage of total monthly workdays.

Use of lost workdays as a percentage of total monthly workdays as a proxy for unemployment is quite robust as it automatically correct datas for seasonal activity.
fluctuations as what is used is not a yearly workdays average but a monthly one. It can be seen on figure 4 that, after July 1993, a kind of adverse relation between inflation and unemployment developed. Results for the beginning of 1994 are dubious from the inflation point of view. The January 1994 figure contains some kind of correction for the last two 1993 months, and February and March figures are probably undervaluated by the change in CPI computation methodology. So, the twist in the relation apparent for early 1994 probably doesn't exist actually.

If we agree with the cost-push inflation idea, the case for it will be developed later, a sharp increase in internalised unemployment, because it translates into a sharp reduction of labour cost (lost workdays are not paid), could very well explain the reduction in CPI growth. If this is actually the case then the increasing stepness of the curve at its higher end could mean that labour costs are only a small part of inflationary cost, leaving few room for any further improvement once the CPI around 4-6% a month.

This sharp production fall has not been followed by restructuring to a same extent. This raises one of the major objection to the policy implemented since 1992.

Restructuring at the microeconomic level has been extremely weak even in privatized enterprises. A large majority of enterprises still produce similar products, even if in reduced quantities. Managing practice are evolving very slowly, but it would be unfair to put the blame only on managers. Quite frequently, they are eager to adopt western styled practice. However, some institutional constraints are severely limiting their abilities to do so. One of the most important is the inability of public finance be it local or federal, to cope with social assets. Some of these are extremely important for the workforce, like kindergarten without it any enterprise would lost quickly a large part of women it employed.

Reversing internalisation and changing the production structure have been limited by various factors. Shortages still existed, even on a reduced scale, by mid-1993. Supply links are unstable and plagued with uncertainty, generating a kind of transaction costs which are delaying any slimming down at plant level and hurting particularly badly small private manufacturing enterprises. Introduction of new products is impaired by restricted investments abilities (partly because of the depression itself, partly because of a highly distorted financial system), instability of relative prices and a general difficulty to identify sectors with a stable and buoyant demand for the next 12 to 18 months because of the high noise level general situation.

Generally speaking, Russian enterprises are facing a sharp increase of economic "noises" or information disturbing factor, and transaction costs similar to what we analyzed in Chapter 1. They are unable to assess their actual situation otherwise than in a very short term perspective and have to adapt their behavior to what Butos and Koppl have called a loose system constraint\textsuperscript{12}. In such a situation entreprises are behaving much more on the radical keynesian pattern than on a notional neo-classical one\textsuperscript{13}. Short termism, narrowing of

\textsuperscript{12} W.N.Butos and R.G.Koppl, "Hayekian Expectations...", op.cit..

\textsuperscript{13} R.G.Koppl, "Animal Spirits" op.cit..
the economic horizon, are not restructuration-inducing factors as behaviors are highly unpredictable and no selection process for rules is working. This can be seen if one looks at Russian managers main goals in the second half of 1993.

Table 5
Managers chief goals (In percentage of group respondents)

<table>
<thead>
<tr>
<th></th>
<th>Agriculture</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit maximization</td>
<td>26</td>
<td>36</td>
</tr>
<tr>
<td>Maximization of wages plus profit</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>Maximization of managerial income</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>To preserve or increase employees number</td>
<td>24</td>
<td>47</td>
</tr>
<tr>
<td>To preserve or increase output level</td>
<td>59</td>
<td>57</td>
</tr>
<tr>
<td>To preserve or increase the average wages</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>To preserve or increase state subsidies</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

No more than four answers for each respondent.

Quite interestingly, two classical Soviet-Type goals have been still proeminent during the second half of 1993, workforce and output preservation or maximization.

In the same time, some forms of restructuration are taking place. Service activities are growing fast and represent an increasing part of the GNP even if they are quite undervaluated in official statistics.

Such an evolution is frequently seen as a positive one, translating a forced evolution into a transition to a post-industrial society. If it is beyond doubt that service activities have been underdeveloped in the former Soviet system, the current evolution is not so positive some western advisers are saying. As a matter of fact increase in total employment share of service activities in western economies doesn't result of a decrease in industrial production but from the very fact that industrial productivity is increasing considerably faster than service productivity. We are far from such a situation in Russia. What we can see is a process of industrial destruction affecting mainly high value added sectors, because of a general situation which is favouring low capital intensity activities and trade more than production.

A second form of restructuration can be seen in the growing share of the raw materials production sector. this trend is directly linked to the fact that raw materials and semi-processed ones are productions where explicit informations are definitely more relevant than tacit ones. The price liberalization and opening strategy has certainly favoured these sectors. However such a situation is not bound to stay for long. Investment are needed in these sectors too, and world demand could not entirely replace a vanishing internal demand. Early 1994, the energy sector (oil and gaz) was already reducing its production as it was unable to export the all the difference between production and internal demand.
Part of the noise generating process can be located into the financial and banking system\textsuperscript{14}. Price liberalization was not carried simultaneously with a reform of the internal payment system. Already weak, both for institutional and technical reasons, it was further damaged by rising uncertainties and a lax payment discipline, example of which was given by the government itself when it suspended or deferred some overdue payments written in the budget.

Table 6
Evolution of Value Added shares : 1990-1993

<table>
<thead>
<tr>
<th></th>
<th>Share in global Value Added, in 1990</th>
<th>Share in global Value Added, in 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy and electricity</td>
<td>7,30%</td>
<td>37,00%</td>
</tr>
<tr>
<td>Ferrous and non ferrous metal</td>
<td>4,10%</td>
<td>6,50%</td>
</tr>
<tr>
<td>Chemicals and petrochemicals</td>
<td>3,10%</td>
<td>1,70%</td>
</tr>
<tr>
<td>Machine building</td>
<td>19,30%</td>
<td>12,00%</td>
</tr>
<tr>
<td>Wood, paper and construction materials</td>
<td>5,40%</td>
<td>4,30%</td>
</tr>
<tr>
<td>Light and food processing industries</td>
<td>4,10%</td>
<td>16,30%</td>
</tr>
<tr>
<td>Construction</td>
<td>13,70%</td>
<td>10,20%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>23,80%</td>
<td>1,50%</td>
</tr>
<tr>
<td>Transport &amp; communications</td>
<td>7,60%</td>
<td>9,20%</td>
</tr>
<tr>
<td>Services &amp; trade</td>
<td>7,30%</td>
<td>5,50%</td>
</tr>
</tbody>
</table>


The banking system still crude, has seen its problem compounded by the very fact that credits were frequently used as a proxy for legitimate subsidies. Banks, already too numerous and too small, have been considerably burdened then by bad loans raising some doubts upon the very possibility to implement any kind of bankruptcy laws without first a major bail out.

By early 1993 a situation of massive system risk was developing in Russia. Good borrowers were trying to leave the banking system, letting only bad or uncertain borrowers on the market. This kind of adverse selection had a distinct negative consequence on banks. Deposits being to few, they launched aggressive campaigns to attract new customers. Unchecked competition let some irrealist claims about return to capital to be made, and a strong suspicion about actual bank solvency was developing early 1994, leading some observers to expect a necessary State intervention, or even partial Statisation of the banking system\textsuperscript{15}.

With the current acceleration of depression, some kind of financial crisis is just to be expected. What really matters here is not the crisis by itself that the fact it could completely destroy the financial system as no prudential institutions are still operating. Such a situation raises serious and black clouds on the very future of market behaviors and strengthen some old fashioned ones like cash-in-advance and barter, which themselves are adding their own


\textsuperscript{15} G.Khanin, "Chaos in the credit sphere", in Delovie Lyudi , n°44, April 1994.
wheet to depression factors. It can then be said that what restructuration is taking place is more leading Russia toward a low-developed country situation than leading toward modernisation and westernization. One can then even speaks of perverse restructuring.

Table 7
Gross Internal Product repartition by sector of origin

<table>
<thead>
<tr>
<th>Year</th>
<th>Material Production</th>
<th>Services</th>
<th>Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>60.6%</td>
<td>32.5%</td>
<td>6.9%</td>
</tr>
<tr>
<td>1992</td>
<td>58.2%</td>
<td>32.6%</td>
<td>9.2%</td>
</tr>
<tr>
<td>1993</td>
<td>48.8%</td>
<td>42.2%</td>
<td>9.0%</td>
</tr>
<tr>
<td>1994 (1st half)</td>
<td>42.5%</td>
<td>50.5%</td>
<td>7.0%</td>
</tr>
</tbody>
</table>

3) A Perverse Restructuration?

The very fast development of the service sector we can see is quite typical of Thirld World countries. By the way, services are not known for a high productivity rate of growth, a situation which is by itself inflationary. One can also see that the share of taxes is going down in 1994, after a considerable improvement in 1992. This another part of a hidden restructuration: the collapse of the State.

What is more, this restructuration process is putting a considerable stress on to Russian unity as it affects regions in a very different way. Even if regional implications of transition will be studied later, as they are a distinct and extremely threatening aspect of Gaïdar's policy consequences, what can be said is that the gravity center of Russia changed this last two years. The true Russian heart, now, is definitely somewhere between the Volga eastern bank and the Urals, and may be drifting farther East, but no more around Moscow. This casts serious doubts upon assessment of the Russian situation made by people travelling to Moscow or St.Petersburg, and the relevance of what Michael Ellman called the Capital-City effect.

Another problem is arising from the fact that high value added industrial sectors have been hit the worse by the depression. If we compare the first 7 month of 1994 to the same period of 1993, the output drop has been of 45% in the light industry, 42% in machine-building and 36% in chemicals; by comparison traditional "heavy industry" sectors which always had enjoyed high priority levels under the Soviet rule have known a far lesser level of production fall (12% in non-ferrous metallurgy and 23% in ferrous metallurgy).

Social changes have been quite important. They could have some extremely negative political and economic consequences.

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17 M.Ellman, "Transformation, Depression and Economics: Some Lessons", op.cit..
18 Data from GOSKOMSTAT.
The social situation can be summed up by the combination between a general impoverishment of the population and a sharp rise in income differentiation. Impoverishment is a logical consequence of the depression. But it is worsened by a rapide change in income sources. During the first quarter 1994 it has been computed that only 58,6% of total incomes were coming from wages, 15,8% from transfers and social payments and 25,6% from profits rents and capital assets\textsuperscript{19}. Such a distribution is not so different from a western economy, even if sometimes the wages share is actually higher. But coming from a society where wages and social payments have been for decades the only income source it means a tremendous change. What is more, because of an highly inequal distribution of capital assets, it leads to a sharp increase in income dispersion which is destroying any reasonment made on the face of any "average" income.

The social effects of such a new distribution have still to be assessed. Nonetheless, when more than 50% of the population is accumulating less than 10% of the global income in the same time than 3,4% is accumulating more than 70%, extremly serious political problems are just to be expected.

\textbf{Table 8}
\textit{Income dispersion in Russia}
\textit{First quarter 1994}

<table>
<thead>
<tr>
<th>Average individual monthly income for the first quarter of 1994, in thousands of rubles.</th>
<th>Size of the income group in million.</th>
<th>Size of the income group as a % of total population.</th>
<th>Cumulative size of income groups.</th>
<th>Total income of the income group in billions of rubles.</th>
<th>Cumulative total income of income groups as a % of total income.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20</td>
<td>0.7</td>
<td>0.5%</td>
<td>0.5%</td>
<td>0.009</td>
<td>0.016%</td>
</tr>
<tr>
<td>20 to 40</td>
<td>10.0</td>
<td>6.7%</td>
<td>7.2%</td>
<td>0.3</td>
<td>0.57</td>
</tr>
<tr>
<td>40 to 60</td>
<td>20.7</td>
<td>13.9%</td>
<td>21.1%</td>
<td>1.035</td>
<td>2.5%</td>
</tr>
<tr>
<td>60 to 80</td>
<td>23.4</td>
<td>15.7%</td>
<td>36.8%</td>
<td>1.638</td>
<td>5.54%</td>
</tr>
<tr>
<td>80 to 100</td>
<td>21.1</td>
<td>14.1%</td>
<td>50.9%</td>
<td>1.899</td>
<td>9.07%</td>
</tr>
<tr>
<td>100 to 120</td>
<td>17.2</td>
<td>11.6%</td>
<td>62.5%</td>
<td>1.892</td>
<td>12.6%</td>
</tr>
<tr>
<td>120 to 140</td>
<td>13.4</td>
<td>9.0%</td>
<td>71.5%</td>
<td>1.742</td>
<td>15.8%</td>
</tr>
<tr>
<td>140 to 160</td>
<td>10.2</td>
<td>6.9%</td>
<td>78.4%</td>
<td>1.530</td>
<td>18.7%</td>
</tr>
<tr>
<td>160 to 180</td>
<td>7.7</td>
<td>5.2%</td>
<td>83.6%</td>
<td>1.309</td>
<td>21.1%</td>
</tr>
<tr>
<td>180 to 200</td>
<td>5.7</td>
<td>3.9%</td>
<td>87.5%</td>
<td>1.083</td>
<td>23.1%</td>
</tr>
<tr>
<td>200 to 220</td>
<td>4.3</td>
<td>2.9%</td>
<td>90.4%</td>
<td>0.903</td>
<td>24.8%</td>
</tr>
<tr>
<td>220 to 240</td>
<td>3.2</td>
<td>2.2%</td>
<td>92.6%</td>
<td>0.736</td>
<td>26.1%</td>
</tr>
<tr>
<td>240 to 260</td>
<td>2.5</td>
<td>1.7%</td>
<td>94.3%</td>
<td>0.625</td>
<td>27.3%</td>
</tr>
<tr>
<td>260 to 280</td>
<td>1.9</td>
<td>1.3%</td>
<td>95.6%</td>
<td>0.513</td>
<td>28.3%</td>
</tr>
<tr>
<td>280 to 300</td>
<td>1.4</td>
<td>1.0%</td>
<td>96.6%</td>
<td>0.406</td>
<td>29.01%</td>
</tr>
<tr>
<td>More than 300</td>
<td>5.0</td>
<td>3.4%</td>
<td>100.0%</td>
<td>38.180</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


\textsuperscript{19} Data from GOSKOMSTAT.
Economic effects are obvious. Such an inequal distribution, meaning the virtual disappearance of a Russian "middle class" would translate in a lower saving ratio and a trend toward luxurious expenditures. Social consequences are no less dramatic; they translate into a sharp increase of motality and morbidity\textsuperscript{20}. Opponents to the transition to the market have then a good argument to use.

Another dimension of social changes is the degree of social mobility. By a large margin access to main income sources is now not only highly restricted, but the selection system is itself seen as unpredictable and unfair. In the old Soviet system, social upward mobility was largely linked to a combination of good school and university results and politicial loyalty. A clientelist bias was developing in the 60's and the 70's explaining the growing opposition to Brejnevite rule in some part of the society. Perestroïka, then transition, have been seen first as a major change toward new opportunities and increasing fairness in social mobility.

The very fact that entrepreneurship can't be exercised without some extremely important clientelist links, that people in charge are stealing a lot of opportunities through a combination of personal corruption, old Soviet style behaviors and simple ineptitude, give way to a growing disenchantment. The new Russian society is not only more unequal (that was expected) but also more unfair as far opportunities are distributed and more closed to social mobility. It is then deeply misleading to focus, as done by A.Aslund, on the old nomenklatura as a rent seeking class\textsuperscript{21}. If there is now a rent seeking class this probably the one constituted by Russian nouveaux-riches, closely linked to the opening up of the Russian economy and wealth transfer organized through the mass privatization process. These people are exploiting their ability to collect and process critical informations as a kind of rent. They are those who staunchly fight any reconstruction of the State and the building of true market institutional infrastructures, not to mention any import taxes, as they are living on imported goods. The very combination of such a perception and of the level of income distribution we have described can only but give birth to a major political backlash.

\textbf{B/ HOW DIFFERENT IS RUSSIA ?}

The previous discussion about stabilization policies has highlighted some general flaws of orthodox and heterodox programs. Another important argument frequently raised is the very specificity of the Russian situation. This point is made the more important


\textsuperscript{21} A.Aslund, "Lessons of the First Four Years of Systemic Change in Eastern Europe", op.cit.. The importance given by A.Aslund to the nomenklatura is quite surprising when one knows that the very word is never quoted in the index of his \textit{Gorbachev's Struggle for Economic Reform}, Cornell University press, Ithaca, New York, 1989. One wonders if Aslund discovered the truth in so recently or if it just used the nomenklatura concept as an ad hoc argument having run short of any others.
because of some notable divergences with transition cum stabilization paths experienced in Eastern Europe.

In most countries inflation have been a problem, but not on the same level than in Russia. Even in Romania and Bulgaria where stabilization policies have been protracted at least to the same extent than in Russia, inflation never went so high. All countries have faced a severe depression. It has to be known that when one hears about growth in Poland for 1993 or 1994, it is after such a depression that 1989 levels are far to be reached again. But here too Russia is the worst case by a big margin.

### Table 9

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland - CPI</td>
<td>249</td>
<td>60</td>
<td>44</td>
<td>37</td>
</tr>
<tr>
<td>Poland- GNP (1989=100)</td>
<td>88,4</td>
<td>81,7</td>
<td>82,9</td>
<td>86,2</td>
</tr>
<tr>
<td>Czech Rep. - CPI</td>
<td>17,5</td>
<td>52</td>
<td>12,7</td>
<td>18,2</td>
</tr>
<tr>
<td>Czech Rep. GNP (1989=100)</td>
<td>98,8</td>
<td>84,8</td>
<td>78,7</td>
<td>78,7</td>
</tr>
<tr>
<td>Slovakia - CPI</td>
<td>19,2</td>
<td>58,0</td>
<td>9,1</td>
<td>25,1</td>
</tr>
<tr>
<td>Slovakia - GNP (1989=100)</td>
<td>97,5</td>
<td>86,6</td>
<td>80,5</td>
<td>76,7</td>
</tr>
<tr>
<td>Hungary - CPI</td>
<td>36</td>
<td>34</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Hungary - GNP (1989=100)</td>
<td>96,5</td>
<td>85,0</td>
<td>81,2</td>
<td>80,0</td>
</tr>
<tr>
<td>Bulgaria - CPI</td>
<td>64</td>
<td>339</td>
<td>80</td>
<td>64</td>
</tr>
<tr>
<td>Bulgaria - GNP (1989=100)</td>
<td>90,9</td>
<td>80,3</td>
<td>75,9</td>
<td>72,9</td>
</tr>
<tr>
<td>Romania - CPI</td>
<td>50</td>
<td>205</td>
<td>199</td>
<td>296</td>
</tr>
<tr>
<td>Romania - GNP (1989=100)</td>
<td>92,7</td>
<td>80,0</td>
<td>67,7</td>
<td>68,3</td>
</tr>
<tr>
<td>Russia - CPI</td>
<td>5</td>
<td>161</td>
<td>2525</td>
<td>847</td>
</tr>
<tr>
<td>Russia - GNP (1989=100)</td>
<td>100</td>
<td>87,0</td>
<td>70,5</td>
<td>61,3</td>
</tr>
</tbody>
</table>

National statistics.

Even in countries assessed as stabilization success stories, inflation is still not under control. Production fall has been far greater than expected, and recovery seems to be slow when possible at all. In Poland, undisputably the country in the best position, even if we accept a stabilized growth rate of 3%, the government will have to wait 1998 before having regained all the ground which has been lost since 1998. There is then no wonder that number of voices have advocated more growth-friendly economic policies than these currently implemented\(^\text{22}\). However, even in this context the Russian situation still seems to be different. This certainly linked to the fact that transition began in its earnest two years later than in Central and Eastern Europe, but the argument does not stop here. Quite clearly, the Russian economy is behaving in a different way, and this is to be understood.

There are obviously some confusions about what difference means. Every country can be rightly seen as specific, and we discussed in former chapters how limited coherence patterns

even inside a similar extended coherence can evolve differently. What matters here is to understand to what degree previous experiences can be generalized, and what kind of stylized facts can be relied on. Such a discussion would allow for a better understanding of inflation and destabilization in Russia.

1) Russian roots of destabilization.

Part of the relevant literature stresses the massive budget deficit of Soviet union last years, and relative prices deformations as principal roots of the Russian destabilization

Some arguments imply that former STE are implicitly destabilized. However, the situation in Czechoslovakia before 1990 shows that different degree of destabilization, some extremely mild, could exist under STE rules. The shortage cum inflation situation of 1991 was understood as the result of incomplete prices liberalization and distorted relative prices. If true to some extent, mainly on consumer good markets, understanding of shortages as a kind of repressed inflation was overly simplistic. Shortages had also quite important microeconomic roots.

What is more, the standard analysis seems to have seriously understated some Russian peculiarities, linked to the duration and the extent of the previous economic system. Tacit information structures were probably much more developed than in any other STE country, for reasons going from a widespread use of priority systems, to entrenched practice of bilateralism and a very specific technological culture which has been developed since the early thirties. Relative prices were probably playing an even smaller role in Russia than in Eastern Europe as far resources allocation was concerned. Functional rigidities were also much more important. Pervasiveness of shortages in inter-enterprise trade has led to internalization at a greater level than everywhere. Enterprise population was much more biased toward large enterprises than in Poland or Hungary. Exposition to international trade has been consistently lower than in eastern Europe, with a much lower level of product standardization and then a much more important supplier induced dependancy. Traditions of market behaviors were weaker than in any other former STE country, and archaic forms of state power (paternalism, ottoman like) much more important. When all is said Russia was more destabilized than Czechoslovakia, has never known de-collectivisation of agriculture and quite an important international trade like Poland, nor experienced a long standing tradition of gradual reforms like Hungary.

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Bruno, Michael, "Stabilization and the macroeconomics of transition", op.cit.. Dabrowski, Marek, "The First Half-Year of Russian Transformation", in Aslund Anders and Richard Layard, (eds), Changing the Economic System in Russia , op.cit..
To all these systemic factors, we have to add the sheer size of the country with all its implications for communication and control.

Russia was then not only different from LDC countries, but also from some of former STE ones. The classical comparison with China, quite fashionable during 1992\(^{26}\), overlooks the very fact that this country was, and still is mainly agricultural and rural. Reform in China has dealt with agriculture mainly, but the heavy industry was still relying on Soviet type patterns of operational rules. The Chinese government consented to extremely important reforms, but actually only after they had become widespread\(^{27}\), a good indication of a healthy agricultural and rural tradition probably dead now in Russia. The very size of the Militaro-industrial complex or sector could has been another specific factor. However, civilian production from this complex was already important well before 1992\(^{28}\). Industrial and social internalization, at plant, local or ministry level, was probably a much more relevant factor. The former Soviet industry was more like a combination of relatively closed networks, than an integrated system\(^{29}\). This kind of networking, partly induced by the tradition of secrecy, and partly as a reaction to shortages, was increasing the value of tacit informations.

The territorial dimension was adding its own problems. Relative prices manipulation and taxation were not only a system designed to achieve resources transfer from some activities to other, but also from parts of the country to others. Explicit transfers through the federal budget could be quite small as relative prices were doing part of the job. Any change in relative prices was to stress the function transfer of the federal budget. Here again, if one wants to make a comparison between China and Russia, it can be argued that the robust local taxes system existing in China, allowing local authorities to reap some benefits from the development of a wealthy private sector, was one major incent for these authorities to support such a sector\(^{30}\). Such a situation prevented the emergence of the kind of tug of war between local and central authorities on tax sharing which has been so evident in Russia since winter 1990-1991.

Destabilization could then be linked to a mix of problems, some of them common to other STE, and others specific to Russian situations; some were clearly institutional, but others functional and probably geographical or at least linked to the problem of economic territorialisation in so large a country.

2) Specific constraints on stabilization programs, and Ye. Gaïdar's policy.

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Here again, it can be argued that some constraints prone to plague any stabilization attempt were common to former STE countries.

A lack of market infrastructures, and particularly of financial markets, was highly damaging for any attempt to use interest rates as a monetary policy tool. This point was well known before 1992, having been dealt with by Calvo and Frenkel. Credit restriction induced depression has also been warned of, and was probably one of the lesson to be learned from Poland.

In a global sense it could be said that without elements of any market discipline as relevant institutional infrastructures were sorely lacking, or well defined property rights (would they be private or public), to rely on macroeconomic policy for a change in microeconomic behaviour was at best a risky undertaking, and more reasonably a deep mistake.

The pitiful situation of the banking sector, with proliferation of small undercapitalized banks, was another specific problem. Sometimes, large state owned enterprises, preparing for the coming privatization, have even created their own "pocket bank", creating a major problem in lender/borrower relation.

The very high level of noise generated by the transition itself is a second major problem. Any policy trying a massive price liberalisation without true market institutions could only but be noise producing. As explained in chapter 1, high noise levels are not only translating into higher transaction costs, but they increase too agent heterogeneity and could induce quasi-monopolist behaviors, even when the market is not actually monopolistic. Bilateralism then was too entrenched, and too much actually relevant as a very coherent behavior in this context, uncertainties were too high to hope anything else than a retreat to barter trade and inter-enterprise bargaining.

Convertibility, in such a situation, could not be but another window for speculation in a situation where speculative activities are as already explained highly destabilizing. It produced its own specific noise, clouding expectations about true Russian enterprises competitiveness.

A last extremely important contraint was lying in the regionalization and disintegration process already apparent for Russia itself in 1991 last months. In his struggle against Gorbachev, Yeltsin has made outrageous commitments about local autonomy. Once in power his perspective changed instantly but its previous word lived on. In the same time public action, through budget spendings, was one of the last link between the "center" and local authorities. Such a dimension of the budget and fiscal problem, as taxes were still collected by local administrations to be shared between local and central budgets, has largely been overlooked.

31 Calvo, Guillermo A. and Jacob Frenkel, "From centrally Planned to Market Economy...", op.cit..
32 Calvo, Guillermo and Fabrizio Coricelli, "Output collapse in Eastern Europe: the role of credit", op.cit..
33 Pitiot, Hélène and Laurence Scialom, "Système bancaire et création monétaire", op.cit..
34 Sapir, Jacques "Formes et nature de l'inflation", op.cit..
It is in this context that the Russian government launched in January 1992 its stabilization program; it was relying on extensive price liberalization (but with some restrictions, as for energy prices), opening to international competition, tight credit and budget policy and a tax reform (VAT introduction) to do the job\textsuperscript{36}. During the second quarter of 1992, a kind of convertibility was actually introduced leading, after a first attempt to manage the change rates through Central Bank intervention, to a massive devaluation. In December 1991, Gaidar himself had presented a bank reform project aiming at solving some of the major problems in this sector. Such a reform could have been a significant dimension of the stabilization program, but was killed early 1992 by an odd coalition of conservative and democrats.

The Russian program lacked obviously the nominal change rate (nominal anchor) and the income policy to be included into the heterodox category. The government tried some kind of limited wages control, mainly for civil servant belonging to the administration and repeatedly fought with the Parliament over indexation issues.

The Gaidar’s plan could then be seen as orthodox not by intent but as a result of limited decision-making or implementing abilities. However, it is not completely mistaken to think about it as a kind of incomplete or degenerated heterodox program.

This program led both to a high stabilized inflation, massive depression and an explosion of inter-entreprise arrears. Credit policy had to be relaxed to avoid a major political crisis with some regions threatening to create their own currencies\textsuperscript{37}, and inter-entreprise credit getting out of control. This decision was not made by the new Central Bank director, Victor Guershchenko, but by the government. Depression created too a sharp drop in budget revenues, compounded by the usual set of problems linked to introducing new taxation. Targets for budget deficit had too to be relaxed. By winter 1992/93, inflation was high but quite stable, and depression has seemed to have bottomed.

After the April 25th referendum, a government in which both Gaidar and Fyodorov sat at the forefront tried a new round of stabilization. Interest rates become higher, reaching inflation level by the end of 1993. Budget deficit was sharply reduced by the simple expedient of not paying part of the expenditure side. This led to a new kind of fiscal crisis, with as much as 40 of 88 Russian regions not transferring taxes collected to the central budget by December. Change rate stabilized and, as inflation was still high even with slowing down, the actual change value rose constantly from September onwards. This new round of stabilization seems to have induced a new depression wave, and inter-entreprise arrears were climbing again extremely fastly in the last quarter of 1993 and early 1994. However the more or less stable inflation rate experienced in spring 1994 (85% a year) could be and extremely frail result. What is more, the collapse of the fiscal discipline, itself a result of the stabilization policy implemented by B. Fyodorov in 1993, is casting serious doubts on the ability to reach the public deficit target of 10% which was aimed for.


\textsuperscript{37} As Krasnoyarsk with the "Augram".
Gaïdar's policy have been criticized on many counts. Some authors have explained it was too lax, lacking some crucial tools, like the nominal anchor or highly positive interest rates\textsuperscript{38}. Other ones have pinpointed the depression result, and social problems associated with. Critics have also pointed to the brutal investment fall raising then the issue about Russia's ability to survive as a developed country and to achieve the much needed restructuration of its economy\textsuperscript{39}.

As much has to be said about its implementation than about its design. The B.Fyodorov's enforced practice of not paying government dues, during the second half of 1993 did an amount of damage no complete assessment can still be given. Social expenditures have been reduced, with an explicit willingness to devolute them to local budgets. But, as financial situations widely differ from one region to another, such a short minded policy could create is nothing less than a greater interregional disparity with a dramatic increase in regional individualism.

In a more global context, any government's default will dramatically reduce future opportunities to find non monetary income sources. Government's defaults usually are extremely detrimental to the taxation system, as they are seen as obvious breach in the so-called social contract linking citizens to the State. In the same time, any government unable to respect its financial commitments will be seen as a potential liability by would be private lenders. What Fyodorov did was not only to create a massive political risk, but also to destroy in the medium term some of the very options of reducing monetary creation linked to budget deficit.

The end result was a combination of a high, stable, inflation, and depression which lasted until the end of 1993. From September 1992 to October 1993, the consumer prices index or CPI monthly rate was quite stable between 20% and 25%, a situation widely different from any hyperinflation scenario. In the same time, industrial production has declined fast, falling in December 1993 to 65.7% of January 1992 level. The very size of the depression is enough to show that it is not a transitory process induced by reduction of inventories or just the decrease in weapon procurement. The fact that the second half of 1992 stabilization of the industrial production index was shortlived is pointing to some durable process.

The financial constraint of the first half of 1992 and the second of 1993, probably had a perverse effect. Enterprises able to stabilize or increase their profits tried to avoid any relation with the credit system, and increasingly relied on internal finance, constraining them investment. Increase in credit cost and willingness to rely on internal finance, in a context where the internal payment system was largely inoperative, induced practice of cash-in-advance type. They exerted a twin constraint. First, such a kind of relationship is not very far

\textsuperscript{38} Dabrowski, Marek, "The First Half-Year of Russian Transformation", in Aslund Anders and Richard Layard, (eds), Changing the Economic System in Russia, op.cit.

from barter as it equates solvency and liquidity. Any enterprise engaged in such a system has to be solvent each time it needs to buy something and not at the period end (be it the month or the year). Such a constraint exerts a deep depressive effect on economic activity. Second, in a *cash-in-advance* economy uncertainty falls on the buyer which is waiting for the product already paid. Such an uncertainty is not very far from the old one of a shortage economy, reproducing part of the situation of a seller’s market.

If combined with pervasive even if limited shortages such a situation could explain that hoarding behaviours did not disappear with price liberalization. Inventories levels were stable or increasing for 76% of an IMEMO sponsored survey respondents during the first quarter of 1993\(^4\). Such a situation shows that the tight monetary policy had extended perverse effects, strengthening some typical STE behaviours. In the same time it wipes out, at least for Russia, any production drop explanation as a result of inventories reduction.

The barterization process is another aspect of the current Russian crisis. One could have expected that, with price liberalization, barter trade will gently fade away. Actually barter trade in internal trade diminished till May 1992. However it began then to grow again and has reached a peak of nearly 17% of trade turnover by April 1994\(^4\). What is more its share is much higher when one looks to inter-enterprise trade. For intermediate goods (that is semi processed and machinery) the share was no less than 25% at the same period\(^4\). What is more, all case-studies made by late spring 1994 on Russian enterprises were showing a percentage of barter trade significantly higher than the one officially reported and one can see *Russian Economic Barometer* figures as probably understated\(^4\).

Development of barter trade is usually linked to the arrear problem. It is a logical step to think that insolvent enterprises are trying to "sell" through barter what they can not sell otherwise. However, here again, case-studies are usually showing that even solvent enterprises are engaged into barter operations. As a matter of fact the difference in order book between enterprises largely engaged into barter operations and others is not significant\(^4\). The tax regulation, mainly for federal taxes, could explain a willingness to step out from the monetary economy\(^4\). It has to be added that usually local authorities are accepting in kind payments for local taxes\(^4\).

Two other obvious reasons can be given to explain barter trade developments. First, banks were seen as expensive and unsafe. With the reduction of monthly inflation rates and the refusal of private banks to distribute special credits given by the Central banks, borrowing to finance day to day operations has became increasingly costly by mid 1993. The second reason is that barter trade has always been a traditional form of trade in the Soviet system.

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42 Idem, p.8.
43 Discussions with Russian economists and personal researches done in May 1994.
46 This is obvious in the Far-East and the Volga Bassin. However in the Black Earth region, the Governor of Tambov was strongly against such a system. He was however considered as a maverik by the local elite.
To go back to barter was, in a sense, a return to old bilateral links so important before. In that sense it is not true to argue that barter is not replacing money but just arrears as done by S.Aukutsionek. Such a move is only a part of a general problem. What is more, this author displays a deep misunderstanding of what a market is when he states:

_Besides, (barter) is fully in keeping with the spirit of reforms, since it requires neither centralized multilateral clearance of trade debtors and trade creditors, nor any other interventions "from above"._

Actually, centralized multilateral clearance is at the very heart of modern market operations. The development of barter trade more certainly than not translates a microeconomic reaction to a macroeconomic shock. There is no dispute that globally such a development means that some enterprises, and actually a growing number of them, are not adapting to macroeconomic conditions imposed by the government. But when a process is so massive and widespread, one have to wonder why enterprises are not adapting to these new conditions. If one looks back to our metaphor in chapter 4 about the tiger and the cliff, is typically a case where constraints have been so harsh that agents have a greater interest to fight back than to adapt. Consequences of such an evolution are obviously important. What is happenning is a kind of demonetization an de-globalization of the Russian economy. Barter trade emphasizes bilateral relations and not global ones. Barter trade is then fostering the constitution of limited and segmented regional economic system without connections between them. This is the price of avoiding what Aukutsionek called "multilateral clearance". Such a result of the Russian stabilization policy is obviously a disaster from a transition point of view. It implies a progressive loss of coherence between local and national evolutions.

That stabilization in Russia still has been less than a qualified success is obvious. As explained before it was not so surprising a result as heterodox and orthodox strategies alike were seriously flawed in addressing former STE problems. But, by comparison to what is happening in eastern Europe, the Russian policy has been an absolute disaster. Problem now is to understand why. Part of the answer can be found in understanding what the Russian inflation is.

3) What Russian inflation is.

Determining actual inflation nature in Russia is at heart of any stabilization policy assessment. Opinions widely diverge, as it could be expected. there are however some reasons to think that this problem is a complex one and that Russian could be a mix of different mechanisms making interpretation and policy making particularly difficult.

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### Table 10

**Inflation to money tests results**

<table>
<thead>
<tr>
<th>Test</th>
<th>( R )</th>
<th>( R^2 )</th>
<th>( N ) (months number)</th>
<th>DW (Durbin Watson test value)</th>
<th>Commentaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demand, monetary induced, inflation.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/ CPI /M2, with a 3 month lag from February 1992 to May 1994. (J.Sachs thesis)</td>
<td>0.47</td>
<td>0.22</td>
<td>28</td>
<td>0.77</td>
<td>Too low a value for DW, probable positive autocorrelation</td>
</tr>
<tr>
<td>1a/ Idem, only1992 (Feb. to Dec.)</td>
<td>0.49</td>
<td>0.24</td>
<td>11</td>
<td>1.09</td>
<td>Idem.</td>
</tr>
<tr>
<td>1b/ Idem, 1993 and early 1994 (Jan.93 to May 1994).</td>
<td>0.36</td>
<td>0.13</td>
<td>12</td>
<td>0.48</td>
<td>DW value even worse than for 1992, extremely low ( R^2 ) value.</td>
</tr>
<tr>
<td>1c/ Idem with a four month lag.</td>
<td>0.56</td>
<td>0.32</td>
<td>27</td>
<td>0.95</td>
<td>Too low a DW value.</td>
</tr>
<tr>
<td>1d/ Idem with a 2 month lag.</td>
<td>0.28</td>
<td>0.08</td>
<td>29</td>
<td>0.63</td>
<td>Idem; very bad ( R^2 ).</td>
</tr>
<tr>
<td>2/ WPI/M2, 3 months lag.</td>
<td>0.37</td>
<td>0.14</td>
<td>19</td>
<td>1.09</td>
<td>Too low a DW value.</td>
</tr>
<tr>
<td>3/ WPI/M2, 2 months lag.</td>
<td>0.2</td>
<td>0.04</td>
<td>19</td>
<td>1.2</td>
<td>Idem</td>
</tr>
<tr>
<td>4/ WPI/M2, 1 month lag.</td>
<td>-0.21</td>
<td>0.04</td>
<td>19</td>
<td>1.23</td>
<td>Idem</td>
</tr>
<tr>
<td>5/ WPI/M2, no lag.</td>
<td>-0.31</td>
<td>0.01</td>
<td>19</td>
<td>1.48</td>
<td>DW value at the very limit, but negative correlation.</td>
</tr>
<tr>
<td><strong>INTRODUCING THE ARREARS PROBLEM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/ CPI/M2+Arrears, 3 months lag.</td>
<td>-0.36</td>
<td>0.13</td>
<td>19</td>
<td>2.98</td>
<td>Negative correlation.</td>
</tr>
<tr>
<td>7/ WPI/M2+Arrears, 3 months lag.</td>
<td>-0.17</td>
<td>0.03</td>
<td>19</td>
<td>1.1</td>
<td>Too low a DW value.</td>
</tr>
<tr>
<td>8/ WPI/M2+Arrears, 2 months lag.</td>
<td>-0.34</td>
<td>0.11</td>
<td>19</td>
<td>1.19</td>
<td>Idem</td>
</tr>
<tr>
<td>9/ WPI/M2+Arrears, 1 month lag.</td>
<td>0.02</td>
<td>0.0004</td>
<td>19</td>
<td>1.21</td>
<td>Idem</td>
</tr>
<tr>
<td>10/ WPI/M2+Arrears, no lag.</td>
<td>0.11</td>
<td>0.01</td>
<td>19</td>
<td>1.4</td>
<td>DW value at the very limit, but insignificant result.</td>
</tr>
<tr>
<td><strong>Cost-push inflation theory.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2+Arrears/WPI, 1 month lag.</td>
<td>0.43</td>
<td>0.19</td>
<td>19</td>
<td>2.51</td>
<td>Good DW value, results could be significant.</td>
</tr>
</tbody>
</table>

Test made on Russian Central Bank and Goskomstat data. WPI= Wholesale price index, CPI= Consumer price index, M2 is the standard monetary mass aggregate.

The most widely diffused explanation is the one supported by Gaïdar’s western advisers, and mainly J.Sachs. He publicly defended the idea of a demand inflation, monetary
induced, where consumption prices are linked to the monetary mass M2 aggregate with a 3 month lag\textsuperscript{49}. This raises a lot of unsolved questions. First, if inflation is monetary induced, then all liquidity assets matter, and not only M2. Inter-enterprise net arrears are extremely important as they were as high as 37% of the GNP during summer 1992 and, after a decrease went back to 15% by December 1993. Second, the very idea of a stable lag implies financial structures stability which is obviously lacking in Russia. Founding of J.Sachs thesis are extremely weak and it is then not a surprise to see, as on the following table that it doesn't stand statistical tests. By using the very same data used by J.Sachs, it can be shown that tests results are at best un conclusive for him and probably extremely negative. Durbin-Watson test values are casting strong doubts upon money-to-inflation correlation.

Just the simple fact that 1993 results are even worse than those for 1992 is extremely disturbing as we could have explained some unconclusive results by transition induced statistical instabilities. Then, results would have to better from 1992 to 1993. As already said, it could have been expected that Russian inflation would evolve toward a traditional monetary induced form. But, in 1993, results have been worse than in 1992, in money velocity highly unstable, a result obviously predictable when one thinks about the institutional confusion on various markets.

\begin{table}
\centering
\caption{Money Velocity (GDP/M2) in 1993}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline
\hline
7,3 & 8,2 & 7,9 & 8,8 & 7,8 & 10,3 & 8,2 & 6,9 & 8,2 & 8,3 & 8,7 & 9,5 \\
\hline
\end{tabular}
\end{table}

These data are coherent with other Russian studies\textsuperscript{50}. One of them is showing that a kind of snow-ball effect induced by a step by step increase of energy prices could have explained a good part of all the inflation process\textsuperscript{51}. It is then not so surprising to find out how well the cost-push inflation hypothesis has stood the test. Obviously, the R2 value is quite low, but the DW value is much better than in any other test. A traditional cost-push process is probably not to be found if not because, as we

\begin{itemize}
\item \textsuperscript{49} Sachs, Jeffrey, "R\'ussir la stabilisation", in \textit{Économie Internationale}, n°54, 1993, 2nd quarter.
\item \textsuperscript{51} Vigdorchik, Elena, et allii, \textit{Liberalizatsiya Tsen...}, op.cit., pp.26-38.
\end{itemize}
said, monetary policy was quite restrictive. However, there are some good arguments to think it is part of the inflationary process, with quite probably a very important inertial effect\textsuperscript{52}.

It is then possible to identify some mechanisms which contributed, to different extent, to Russian inflation during the last two years.

Brutal change of relative prices when production functions are quite rigid can induce a snowball effect. After a discrete step of relative prices increase for some products (here fuels and energy), other industrial branches will try to restore their previous profit rate, up to the point that we are back to the older relative-prices structure. This process could span on months as inventories, distorted supply links, bilateral pricing, are clouding the information scene. The traditional argument against the very possibility of snowballing disappears in Russia as rational expectations for prices movement is highly an heroic assumption. The more unstable the information environment is the longer the process will take.

By the way, reconstitution of previous profit rate is not the only target of economic agents. During the transitory period they experienced some losses they want to make good. as they are probably expecting some new round of relative prices increase, they will increase their own prices much more than it could have otherwise been necessary if they could have forecasted more prices stability. There is an overshooting element in this reactive process, generating a greater than expected price raise.

Industrial relative prices have widely fluctuated during 1992. If their evolution slightly dampened by 1993, they were nonetheless far to be stable.

\begin{table}
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline

& \textbf{Price multiplicator} & \textbf{Price multiplicator} & \textbf{Relative price index} & \textbf{Relative price index} \\
& \textbf{1/92 - 10/92} & \textbf{10/92 - 5/93} & \textbf{With light industry} & \textbf{With light industry} \\
& & & \textbf{for basis (1/92-10/92)} & \textbf{for basis (10/92-5/93)} \\
\hline

Ferrous metallurgy & 6.7 & 4.6 & 2.68 & 0.94 \\
Non Ferrous metallurgy & 6.3 & 4.9 & 2.52 & 1.00 \\
Chemicals & 4.0 & 4.9 & 1.60 & 1.00 \\
Machine building & 3.4 & 5.5 & 1.36 & 1.12 \\
Wood and paper & 3.0 & 4.2 & 1.20 & 0.86 \\
Construction materials & 4.0 & 4.2 & 1.60 & 0.86 \\
Light industry & 2.5 & 4.9 & 1.00 & 1.00 \\
Food processing industry & 4.5 & 5.1 & 1.80 & 1.04 \\
\hline
\end{tabular}
\caption{Absolute and relative price modifications in selected industrial branches (1992-1993)}
\end{table}


As far the Consumer Prices Index is concerned, prices for services have constantly outstrippen prices for food and non-food item. This is not surprising when one remembers how the service sector was underdeveloped in the Soviet economy, but also when one

\textsuperscript{52} Vorobyov, Alexander Yu., "Russian inflation...", op.cit.
remembers how the income distribution evolved in 1992 and 1993. The large gap between a small minority of wealthy and the majority of the population means that the higher population stratum has now incomes sufficiently high to consume a lot of specialised services. Then, it is no surprise that service prices are rising so fast, but they contribute by doing so to the CPI evolution. This phenomenon is typically one of internal change in consumption and production patterns induced by a transformation of income distribution. It is clearly not a pure monetary induced inflation.

If relative prices are unstable, and demand fast decreasing, letting agents without any other option than to try to restore solvency from one period to another on a decreasing turnover, then a conflict inflation can be induced. Conflict can oppose industrial branches, with a prices build-up in a multiple prices system generated by bargaining, bilateral pricing, and territorial market segmentation induced by ineffectual market infrastructures. If demand doesn't decrease at the same rate in different activities reciprocal indexation could appear with some branches trying to ape profit growth of leading activities. But the conflict can oppose manufacturing to banking, as even negative actual interest rates translate into an increasing financial burden if turnover decreases from one period to another. Russian interest rates in 1992 and 1993 were in this context probably more than enough to push the most solvent enterprises to try to avoid borrowing to banks. The need then to sustain enterprise development on internal finance only could have exacerbated some price raises. If linked, these two kinds of conflict are merging in a powerful microeconomic induced inflationary mechanism, exacerbated by instability and uncertainties generated by deficient market structures and highly a distorted informational world.

The monthly depression rate then matters to understand part of this process. Depression could have reduced the general efficiency level of Russia industry as unit intermediate consumptions could increase in activities where scale effects and increasing returns are to be found. A large factory which have to reduce its production by a 50% factor can reduce its wage cost either by laying off workers or by reducing the working week (as it has been done in Russia). But intermediate consumptions reduction is more difficult to do as technical irreversibilities can prevent a proportional decrease. The unit value added ratio is then diminished, with all the pressure on prices this process entails. Depression can then be a major inflationary factor, particularly if output fall is important and fast as technical adaptation and cost cutting innovations are extremely difficult to implement at short notice on a massive scale. Russia easily qualify for inclusion in such a category with an industrial production which has decreased of 20.2% in 1992, and 16% in 1993. Depression will then exacerbates the two other aforementioned processes, snowballing and conflict, by increasing microeconomic rigidities and resources transfer.

Two more common factors seem to have played a not unsignificant role. As imported consumption goods proportion in aggregate consumption has increased, rouble devaluation certainly played its part in the consumer prices index, at least from summer 1992 to summer 1993. Lack of financial markets and uncertainties plaguing the bank sector have probably led to some saving to be transformed in material goods, creating an oversized demand and speculation for some of them.
Russian inflation is quite probably a complex process, with a combination of different mechanisms. In a global sense, it validates a microeconomic, relative prices-induced approach. One can however be in doubt that inflation is actually the same in every place in Russia.

4) Is Russian inflation territorially unified a process?

It is less than evident that inflation is actually the same process in all of the 88 parts of the Russian Federation. One clue of the actual situation can be gained by examining the marginal saving propensity to per capita income relation.

In a market economy, saving behavior is linked either to intertemporal welfare maximization, or, in a Keynesian way, to per capita income. The intertemporal maximization process implies that today and tomorrow values could be compared and expected, and that agents could use financial tools for their savings. Generally it implies well-developed financial markets and low uncertainty.

Figure 13 -a
As we are quite far from this situation in Russia, the keynesian interpretation is plausible an alternative. Then savings are defined first as the non-consumed part of the income. Such an interpretation assumes a positive correlation between per capita incomes and marginal saving propensity.

As a matter of fact the two available samples of regional datas don't display such a relation. A lot of regions display a large insensibility of marginal saving to per capita income, casting some doubts about the degree of monetary relations which can be found. Even without discussing here the meaning of a situation, for an economy in transition, where monetary relations are not the same on different parts of the national territory, implications as far the nature of inflation is concerned are obvious.

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Such a situation can probably linked to specific dynamycs which appear now at the local and regional level. The very development of barter trade we mentionned earlier does not speak well obviously for a spread of monetary induced behaviors. One can suspect that what is called "barterization" (Barterizatsiya in Russian) does not take place at the same speed or at the same extent in various parts of so large a country.

As a matter of fact the two available samples of regional datas don't show such a relation.
This is certainly exacerbating regional differences, a topic we will discuss later. But even without mentioning this problem one have then to consider what possible implications are of widely diverging regional dynamics, as far the inflation process is concerned. If we could support the assumption that some regions are already operating in a quasi "natural economy", that is with monetary relations reduced to a bare minimum, and I think that we have elements to do so, then it is obvious that inflation cannot have in these regions the same meaning than elsewhere. This point is just enough to destroy the idea of a common process on all the Russian territory, but it is not the only point to be made.

Even when regional dynamics are widely different, there are few reasons to think that there is no contact from one region to another, if only because, as we have seen precedently, industrial production has been quite regionally specialized in Russia. No region can live in autarky. But then we have to understand how a regional dynamic can contaminate another region. To call it differently, is barter spreading or receding.

What we have seen before seems to support the idea that barter is spreading. If true, then regions where economic dynamics are less "monetary" would progressively contaminate other regions.

Such a process will largely depends of the internal trade level and composition. If we take an ideal case, a region which theoretically operates in a pure demand-type inflation, if non-substitutable supplies are coming from other regions where inflation is different a process, then we have to expect contamination of inflation dynamics, and a progressive enslavement of the ideal-case to non demand induced inflation processes dominating outside.
The conclusion is then that not only Russian inflation is a mix of different dynamics, but that the very nature of the mix is changing with time.

5) Is stabilization coming at last, or "pas de deux" between inflation and depression?

From all it has been said and written it is clear enough that Russian inflation is not a simple and straightforward problem.

Inflation slackening early 1994 is then quite surprising. Obviously enough Russian reformers have claimed it was their victory. But, as we have seen, money to inflation links are tenuous enough not to be convinced. Figure 3 has shown how difficult it is to pretend that inflation is linked to monetary mass whatever the lag chosen. Some other explanations have to be found.

Stabilization of relative prices has certainly reduced the snowball effect. Shock waves of 1992 step by step prices readjustment in the energy sector are slowly fading out. Actual change rate stabilization and even re-evaluation of the ruble actual value has reduced the imported component of the prices index. Manipulation of this last could also have played a role. With the progressive disintegration of the federal government apparatus, collection of prices data on the whole territory is increasingly dubious. Then, the CP Index could become more and more biased toward the consumption and prices structure of some Western Russia large agglomerations, maximizing change rate impact on the inflation rate. Changes in computing and gathering methodology
which have taken place early 1994, and were an obvious necessity if not because of qualitative changes of consumption baskets induced by the depression, not necessarily politically biased, could also have significantly distorted early 1994 results.

By the way, one can also expect that consumers would, if and when possible, switch part of their expenses to products the price is growing slower. The modification of the consumer basket is always a major characteristic of durable high inflation. But this consumer response is by itself a mechanism leading to a lower *recorded* inflation once computation are made on the basis of the new basket.

In the same time, if a lot of enterprises have just ceased to operate, then part of the cost-push phenomenon is just bound to disappear. It is not exactly the same situation when enterprises are slowing down while expecting this situation to be a transitory one, and when they are just closing down even if no real lay-offs are still made.

During 1992, a major price raise in the energy sector took place by September and early October, with some obvious results\textsuperscript{53}. To assess actual factors of depression or inducing inflation rate changes a kind of data deseasonalization is needed, as the seasonal effect seems to be extremely strong in Russia.

This is not to say that the monetary policy had no effect at all. But both its impact and the lag needed to fell it are far from being clear and easily understandable.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure14.png}
\caption{Industrial production output drop and seasonal effect}
\end{figure}

Source: Goskomstat Rossii.

What's more, monetary policy interacts with some structural inflationary factors, distinct from both the snowball effect and conflict inflation, which are linked to the very scope of institutional change and wealth transfer the transition process induces. As it has been explained, monetary restrictions could even have a reverse effect on inflation through different kind of perverse effects rooted in the limited and incomplete nature of market infrastructures in Russia. Not to take in account such a situation means just to forget what transition is.

During the second half of 1993, and the beginning of 1994, a dramatic increase in what we could call "internalized unemployment", i.e. reduction of working time without wage compensation, took place, as we seen in chapter 4. As a matter of fact, wages were accounting for less than 59% of total population incomes during the first quarter of 1994\textsuperscript{54}, and real wages fell by 17,5% from June 1993 to June 1994\textsuperscript{55}. This could have of course a very important effect in reducing inflationary pressures at the enterprise level. To the contrary to what is assumed in a quasi-official document\textsuperscript{56}, wages had, and still have, a very small role in the inflation process.

What is essential to understand is that Russia is experiencing an extremely perverse "pas de deux" between inflation and depression.

Prices outbursts have provoked, from stabilization minded decision-makers, policies which are leading to a depression acceleration increasing some inflation factors, either direct as an increase of unit cost, or indirect as a dramatic perturbation of institutional infrastructures and high noise levels generation, and then inducing a new round of would be stabilization measures. It is an obviously perverse circle which could lead to a major social and economic collapse, even without making for political aspects of budget spending contractions and the hovering legitimacy crisis of central government.

The very fact that the Russian inflation process is probably no more an unified one on a national level is to be taken into account if one really wants to devise and implement a sensible stabilization policy.

As a matter of fact, Russia is clearly living the very kind of experience a western author described:

\begin{quote}
...a stabilization package in the context of inherited inertial inflation and increasingly rigid inflationary expectations can create a vicious circle of policy-performance gap: budget deficit cuts, tight money, and currency devaluation induce falling output (and employment) and higher inflations, which lead to "recession induced" fiscal deficits and "inflation driven" loss of prices competitiveness (currency reevaluation) which lead to additional budgetary tightening, partial monetization of the deficit and further currency devaluation, which induce a deeper recession and higher inflation....
\end{quote} \textsuperscript{57}

\begin{footnotes}
\footnote{Gosudarstvennyj Komitet Rossijskoj Federacii po Statistike (Goskomstat-Rossii), Social'no-Ekonomicheskoe Polozhenie Rossii - Janvar'-Mart 1994g, Moscow, April 1994.}
\footnote{Goskomstat data, July 1994.}
\footnote{Les réformes russes: à l'aube d'une nouvelle étape, Moscow, 1994, Ekspertniy Institut.}
\footnote{S.Islam, "Conclusion...", op.cit.,p.201.}
\end{footnotes}
The change rate crisis of October 11th was then highly previsible. What has been called "stabilization" during spring and summer 1994 was nothing more than a pause. Roots of structural destabilization are still here, and they are less and less significantly affected by a macroeconomic policy inspired by traditional economics. Various rounds of "shock therapy" have now so weakened the investment process and the payment discipline that there is no room for further attempts in this direction.

A way out is to be found if a dramatic outcome is to be avoided. Relying on traditional stabilization programs, heterodox or orthodox alike, is probably the best recipe for achieving some kind of catastrophic crisis. Not only are these programs unable to act on current Russian economy mechanisms but their founding assumptions are clouding out the very nature of the problem, preventing a sensible policy-making decision to be worked out. As explained before, dynamic stabilization implies a kind of structural economic adjustment. But without a buoyant internal market there is no incent for private owners or State managers to begin the restructuration process. No investment policy could replace demand. What is more, the complete decay of material and legal infrastructures is not making long term thinking easy. Here again we are facing a legacy of all ill-advised attempts in macroeconomic stabilization. But, if agents are unable to think about the long term, there is no reason why they would begin to invest and discard their current speculative practices.

The problem of stabilizing the Russian economy is a double one. It implies both to create a new demand, less distorted than the former Soviet one, and to create a stable economic environment. This is a task only the State can do in a short time. May be some spontaneous process could develop with time, but a complete economic and political breakdown is too ominous to wait for a long. We are typically here in the situation described in chapter 1 when we have criticized hayekian absolute spontaneism. Not only one can have doubts about the ability of a spontaneous process to do the job, but much more decisively one can have doubts it could do so in the time left. Some kind of State activism then is needed, but it had to be legitimate. Here, procedural legitimacy building would be critical as policy results would not materialize instantly.

People among the Russian government and the political elite have now to fight for a kind of intellectual autonomy toward some western advisers and their Russian croonies, if only because their understanding of traditional economics is extremly crude and leads them to such a rigidity that they are now a considerable political liability. A fresh mind approach to stabilization of Russia is needed. Orthodox and heterodox programs alike are unable to adress specific problems of a transition economy. Focusing onto a kind of static stabilization, they induce some perverse effects on capital formation and restructuration which are extremly detrimental. More than ever, stabilization means for a country such Russia, convergence toward some kind of sustainable growth path at a stable inflation level, which could be quite high by Western Europe standard. Only a deep restructuration could lower structural inflationary tendencies, and such a process could take some years.

A sensible stabilization policy has then to be integrated in a mid to long term global economic program, precise enough to give clear guidelines to microeconomic agents, flexible
enough to allow for uncertainties which are to be encountered in such an uncharted road. Stabilization of a transition economy is not a six month journey. One important lesson to be learned is that when the productive sector is unable to adapt quickly to a massive relative-price change, then perverse situations are to be expected. The development of barter trade is nothing else than a spontaneous reaction against new relative-prices. The very development of barter, the fact it is an increasing phenomenon is a proof that the Russian economic structure is unable to adapt in the short temporality of relative-price liberalization. There is then no other solution, like it or not, than to accept some kind of relative-price manipulation, either through import taxes or limited price control, and probably by both.

As it has been written before, stabilization could be achieved only by taking into account the very degree of information environment degradation. Radical uncertainties and massive economic noise situation are plaguing the Russian economy now. They have to be directly addressed. It is then obvious that deficit reduction through sequestration is nonsense; the cure is worst than the illness. No rule can be established if the State is not to be bond on some point. State payments have to be reestablished as a rigid rule if one wants to reconstruct any kind of payment discipline. More globally, what is at stake is not to search for optimal efficiency now in Russia, but to try reconstruct some kind of limited coherence. In stabilizing such an economy effectiveness matters more than efficiency. But limited coherence, even if at heart crucial for economic behaviors, is not to be constructed just on the field of the economy. It implies that interactions between economy and politics are to be taken into account.