

Economic (Dis)Integration Matters: The Soviet Collapse Revisited

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October 2004

Paper prepared for a conference on “Transition in the CIS: Achievements and Challenges” at the Academy for National Economy, Moscow, September 13-14, 2004

Abstract:

This paper argues that the disintegration of economic space has been a significant factor explaining the economic collapse of the transition countries in Europe and Central Asia. While disintegration by no means has been the only factor behind this collapse, it has been neglected by most economists explaining the economic trajectory of the transition process. The evidence which the paper assembles in support of its hypothesis remains fragmentary. However, the author argues it is sufficient to make the case that disintegration has mattered and that neglecting it runs the risk of seriously misinterpreting an important recent historical event. It also risks placing blame for supposed failures of reforms which if anything have contributed significantly to ameliorating the negative impacts of disintegration and have set the stage for a lasting recovery. Nonetheless, there remains a major research agenda both at the conceptual and at the empirical level to sharpen and deepen the analysis advanced here. The paper also argues that economic reintegration of the region and integration with the rest of the world offer an opportunity for sustaining the recent strong recovery. In pushing forward with such reintegration the principal focus should be on lowering barriers to internal trade and transit and to internal mobility of labor, capital and knowledge within countries and within the region, while at the same time aiming at integration of the region with the rest of the world.

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Introduction

The collapse of the Soviet Union and of its political and economic empire between 1989 and 1991 was in many ways a historic event – unexpected, swift, socially and economically painful, and surprisingly peaceable. One of the most striking consequences was the dramatic economic decline recorded in official statistics and the pervasively negative economic impact on most peoples' lives in this vast region of the world. The decline was much deeper and long-lasting in the Former Soviet Union than in Central and South-East Europe. (See Figure 1)¹ In recent years, virtually all countries have started a sustained recovery process, which is more advanced in the latter group of countries, but at this time more rapid in the former group. (See Figure 2)

This paper is concerned principally with developing a better understanding of the process of economic collapse, which was probably an unprecedented phenomenon during peacetime in recent economic history.² Despite the severity of the transition recession in the Former Soviet Union, remarkably little in-depth research has been carried out to analyze the reasons, mechanisms and dynamics of the economic collapse. Moreover, one particular aspect of the transition experience in Central Europe and South East Europe and in the Former Soviet Union has been notably neglected – the spatial disintegration of the previously highly integrated economy of the former “Eastern Block,” as old economic ties were ruptured with the disappearance of central planning and the emergence of borders between new nation states. This is particularly ironic since during the same period most economists have been singing the praises of global and regional integration in the rest of the world, albeit against a rising tide of discontent in some radical, and mostly non-economist quarters.³

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¹ All figures can be found at the end of the paper.

² A comparison with the Great Depression of the 1930s is frequently made, where the Western industrialized nations contracted by about 20-30% over a three year period. In the FSU the economies typically contracted two times that much.

³ Another factor that tends to be forgotten is the development of energy prices and production in the FSU and especially Russia. It is no accident that the lowest international oil price and lowest Russian oil

This paper first reviews the standard economic literature has to say about the reasons for the economic collapse of the FSU. It then explores a key missing element in most of the available analysis, namely the disintegration of the FSU across its former highly integrated economic space. The paper concludes with a discussion of the implications of the disintegration of the former Soviet economy for today's outlook and policies in the region.

The Transition Story as Told So Far

When one reviews the economic and econometric literature on transition in Central and Eastern Europe and the FSU, one finds a large number of regression analyses relating economic growth over the transition years as the independent variable to a number of explanatory variables, usually consisting of a mix of parameters reflecting so-called "initial conditions" and market-oriented reforms.⁴ Among the initial conditions are such variables as level of development, trade dependence on the CMEA, macroeconomic disequilibria, distance from the EU, natural resource endowments, time spent under socialism, capacity of the state, and war and civil unrest. Economic reform parameters usually include various variables and indices reflecting the degree, content and timing of macroeconomic stabilization, and of structural and institutional reforms. These econometric studies broadly agree that the transition recession and the subsequent recovery can be explained broadly as follows:

- Initial conditions mattered, but less so with passage of time.
- The extent and pace of reform mattered: the more and the more rapid the reform, the shorter the recession and the faster the recovery, with some debate around the proper sequencing of policy versus institutional reforms.
- The initial decline is to some extent a function of the speed of reform, with typically a U-relationship: reform may cause more initial pain if it is too slow or if it is too fast.
- In none of the econometric studies is there an explicit recognition of the fact that the Soviet Union broke apart into independent nations.⁵

Besides these econometric analyses there are a number of other studies that have considered the economic collapse in the transition economies:

production levels in decades were reached in 1998 after a 15-year decline which substantially contributed to the failure of the Gorbachev reforms, to the economic collapse of Russia in the 1990s and to Russia's financial crisis in 1998. For production and price trends see Institute for the Economy in Transition (2004), pp.158-165. The failure to recognize this important cause of the economic decline is also ironic since economists correctly attribute some of the recovery of Russia's economy in recent years to the dramatic and sustained recovery of energy prices. An exception to the neglect of this factor is Sutela (2003)

⁴ This literature and its findings are ably surveyed by Fischer, Sahay and Vegh (1998), Havrylyshyn (2001), Campos and Coricelli (2002) and World Bank (2002). Note that in addition to the limitations of the econometric analysis of growth performance noted here, one might add the critique of this approach found in Lindauer and Pritchett (2002).

⁵ This factor is also largely ignored in the surveys cited in the preceding footnote. As mentioned in footnote 3 above, this literature also neglects the critical development in energy prices.

1. Aslund (2001, 2002) questioned whether there was in fact a significant economic decline, on the grounds that the official data misrepresent actual trends. According to Aslund the commonly used data, among other biases, overstate initial GDP at the time of the breakup of the Soviet Union due to improper valuation and understate the extent of recovery, since they do not capture the increasing contribution of the shadow economy. Unfortunately, his analysis has not been subjected to an in-depth statistical review. Indeed, all of the econometric work previously referred to simply waves aside any questions of validity of statistics.⁶ Revisions of national accounts in some of the countries of the FSU have reflected to some extent the concerns that Aslund raises. Moreover, Aslund neglects or downplays certain factors, such as the dramatic drop in trade within the region and the unequivocal and substantial increase in the incidence of poverty which took place in the early years of the transition. And to the extent Aslund (2002) does accept that a transition recession occurred, he does not attribute it to economic disintegration. Nonetheless, the challenge which Aslund poses regarding the quality of the data should be taken seriously and certainly raises important questions about the usefulness of the many econometric studies.
2. Siglitz (1999) compared Russia's and China's economic performance in the 1990s in a simple graph (reproduced in Figure 3) which shows China's GDP rising continuously and rapidly from 1989-1997, while Russia's GDP is continuously declining for much of the same period. Stiglitz draws the conclusion that if only the Russians had not followed the bad advice of domestic and foreign economic advisers with the pursuit of rapid policy reform, and instead had applied the Chinese approach of gradual reform and focused on market institution building first, they too could have avoided the collapse and enjoyed rapid economic growth. One might well agree with Stiglitz that more attention to institutional reform would have been helpful and that a two-step liberalization process following the Chinese example, if it could have been implemented in the political environment of the dying days of the Soviet system, might have produced somewhat better results than those actually achieved. However, it is highly unlikely that the Chinese approach, which relied on strong administrative and party control, could have been implemented once Mr. Gorbachev had seriously weakened the central control mechanisms of the Soviet state, i.e., the central administrative structures and the Communist Party (Ellman and Kontorovich, 1992; Kotkin, 2001). Moreover, there were many structural differences between Russia and China that explain the differing growth experiences during this period (World Bank 2002). And finally, as explained further below, the spatial disintegration of the Soviet Union created substantial economic disruptions which China was able to avoid.
3. Much more substantial and relevant is the explanation of the transition recession given by Kornai (1993) who advances multiple explanatory factors for the economic decline of the Central European economies: Inventory stock reductions, enterprise restructuring and disruptions, lack of financial markets and decline in demand (external trade and domestic investment and consumption). A number of subsequent

⁶ Again, this includes the surveys previously cited.

papers, reviewed below, explore some of these specific factors in greater detail for the transition economies more generally.

4. Among the research considering external shocks are Rodrick (1992) and Tarr (1993) who provide detailed analyses of the impact of terms-of-trade shocks resulting from the break-up of the CMEA and FSU. Avenesyanyan and Freinkman (2003) calculate the impact of international price and demand shocks for Armenia. Each of them finds significant quantitative impacts of these shocks which substantially explain the economic decline experienced by the countries concerned.⁷
5. Other research explores the microeconomic dimensions of enterprise restructuring: Aghion and Blanchard (1994) and World Bank (2002) consider the impacts of “creative destruction” in the course of enterprise and labor restructuring while Blanchard and Kremer (1997) consider the effects of “disorganization” and Hare et al. (2000) the impacts of disorganization and trade disintegration (in Uzbekistan, Kazakhstan).

It is interesting to note that the last-mentioned studies (under items 3.–5. above) identify and try to quantify specific aspects of the process of economic disintegration as part of the transition process. But despite these few helpful contributions to a better understanding of the process of economic collapse in the transition process, it is striking how little research appears to have been done regarding the contribution of the disintegration of economic space to the dramatic economic decline especially in the Former Soviet Union.⁸ The next section will explore this factor in some detail.

Disintegration of Economic Space – the Missing Piece of the Puzzle

The transition in Europe and the FSU took place in two key dimensions: First, it played out in a systemic dimension where the political and economic systems changed with a move from dictatorship towards democracy and from a centrally planned to a market economy. But second, it also took place in a spatial dimension where a far-reaching disintegration of the political and economic space occurred as the former East Block fell apart politically and economically.

The scepter of disintegration in economic space worried many of the observers of the early stages of transformation since they had seen early indications of this process during the second half of the 1980s as a result of the Gorbachev reforms, both in terms of breakdown of inter-enterprise links and of central control over sub-national authorities. For example, Gros (1991), Williamson (1993), Wolf (1993) and Yasin (1993) expressed concern about the potential collapse of economic links and especially of trade among the republics, with Williamson and Wolf specifically referring to the economic impact of trade-disintegration of the breakup of the Austro-Hungarian Empire at the end of World

⁷ These impacts are further discussed below.

⁸ This is confirmed by a review of a major annotated bibliography on transition in The National Council for Eurasian and East European Research (no date). Note that this neglect also includes European academic observers, such as Hillebrand and Kempe (2003) and Sutela (2003).

War I as a precedent to be avoided.⁹ In fact, it is striking that even in 1991-92 the same observers, in particular Gros and Yasin, clearly did not expect that the disintegration of economic space would be allowed to progress as far as it eventually did.¹⁰ Komarov (1993) provides an excellent early, albeit qualitative assessment of the importance of the “disintegration of economic space” for the FSU.

But despite these early warnings of the consequences of economic disintegration and despite some recurring early efforts in the region to maintain orderly economic links among the new republics of the FSU – especially under the umbrella of the newly created, but ultimately ineffective Community of Independent States (CIS) – the disintegration process and associated economic collapse proceeded rapidly after 1991. With the few exceptions noted above economists seem to have largely ignored the role which the disintegration process played. This is particularly striking since it was so visible and politically sensitive, and indeed represented a major difference between the transition experience of the FSU and China. I turn now to a more detailed review of this process and its impacts.

During much of its existence, the economy of the Soviet empire was deliberately and highly integrated internally across its vast geographic expanse in many different respects. Industrial activity was widely dispersed, specialized regionally and highly integrated by the Soviet central planners. Typically, one or a very few firms produced a particular product for the entire Soviet economy. Snyder documents this extreme industrial concentration, where for example each of 34 of 65 items of agricultural equipment was produced exclusively by one individual firm for the entire Soviet Union (Snyder, 1993). By the same token, the sourcing of essential inputs into the production process was highly concentrated.¹¹ This is well represented by the example of a hay bailer factory in the Kyrgyz Republic which depended critically on the access to a compressor part which was available only from two sources, one firm in Estonia and another in Russia (Hare et al., 2000).¹²

A highly developed rail and air transport infrastructure made this possible and was operated without consideration of cost and at high implicit subsidies. Transport systems were centered on Moscow as the main hub.¹³ As a result, internal and external trade flows within the Soviet block were large and involved long over-land distances (e.g.,

⁹ While Gros argues that preservation of a central authority would not be necessary or desirable in the Soviet Union he also notes at the end that “[T]he economic arguments that justify the introduction of autonomous economic policies for a number of republics do not justify an extreme nationalism in economic policy nor a precipitous break-up of the existing economic links.” (Gros, 1991, p. 213)

¹⁰ Yasin, for example, postulated at a conference in April 1992 three possible scenarios for the relations among the new republics of the FSU, including “[O]ne extreme scenario [which] envisions all the former Soviet republics becoming and remaining independent states with their own currencies and independent trade policies,” a scenario which he thought “does not look very probable.” (Yasin, 1993, p. 33)

¹¹ See Komarov (1993) for a vivid description of this highly integrated system in the FSU with specific examples for inter-republican deliveries of coal, power and oil.

¹² Another example is the telecommunications sector: “Telephones were produced in Riga, Latvia, and Perm, Russia, with the Russian plant producing approximately 90% of all Russian-made phones.” (Bock and Sutherland, 2000, p. 321.

¹³ See Kontorovich (1992) for an analysis of the railway system.

Central Asian commodities exported from Baltic ports, Tajik aluminum for Belarus industries, Kyrgyz sheep wool for Eastern Europe, etc.). Energy (gas and oil) similarly was transported over great distances and regionally integrated power grids were common (e.g., South Caucasus, Central Asia). Like transport, energy inputs were at nominal prices with high implicit subsidies. Regional water systems of Central Asia were integrated for intensive irrigation, power production and water consumption in urban areas. Labor resources were relocated, often involuntarily, across regions in great numbers to meet planning targets. The administrative institutions of the state were highly centralized, especially in the Soviet Union, more so than in many other socialist economies. The key elements of this integrated system of centralized economic management are well described in Hill and Gaddy (2003) as they applied to the development of Siberia. Much of their analysis applies to other parts of the Soviet empire.

Pre-1970 the Soviet system was relatively successful in creating measured economic growth (based on high investment, forced savings and centrally planned mobilization of labor, high expenditures on education and science, etc.). Over time, the system became increasingly burdened by its inefficiencies, under-consumption and high military spending, and hence prone to stagnation. These difficulties became more pronounced and evident in the 1970s and 80s, as returns on investment and total factor productivity dropped precipitously.¹⁴

The Gorbachev reforms were intended to reverse these trends by selectively liberalizing the political and economic system, but in effect this resulted in a loss of political and economic control. Indeed, as Ellman and Kontorovich (1992) pointed out, significant disintegration had already started to take place in the Soviet Union during the second half of the 1980s as a result of the Gorbachev reforms, with a breakdown of inter-enterprise links and with a loss of central control over sub-national authorities. A key element in the breakdown of centralized control was the effective destruction of the Communist Party (Kotkin, 2001), which had been the glue that held together the vast empire. Combined with a loss of economic control over enterprises starting with enterprise reform measures in 1987 the loss of political control over the regions resulted in a mounting fiscal crisis in the late 1980s and into 1990-91, economic stagnation and eventually a serious recession by 1990-91, and growing separatist tendencies first among the Central European satellite states and then among the Soviet republics. (Gaidar ed., 2003; Sutela, 2003)

In the course of the political collapse, the CMEA disbanded and the countries of Central Europe turned westward. Then during 1991 the Soviet Union disintegrated as a political entity, with a formal collapse in December 1991. The aftermath of this political disintegration also hastened a process of economic disintegration which went much beyond the immediate effects of systemic economic reform (macro-economic stabilization, price liberalization, privatization, legal and regulatory reform and more generally the building of market institutions, etc.). Some key elements of this disintegration of the previously highly integrated economic space were as follows¹⁵:

¹⁴ See for instance Campos and Coricelli (2002) and Gaidar ed. (2003),

¹⁵ Komarov (1993) describes the situation as follows (summary translation by Ayla Azizova): “As a result of country’s disintegration many of these [inter-enterprise] ties were destroyed. Russia’s government

1. The integrated payments and the non-cash inter-enterprise settlement system collapsed and financial flows and settlements across the new borders dried up (esp. once the unsustainable ruble zone collapsed and as hard-currency settlements were required across borders) (Noren and Watson, 1992; Sutela, 2003). More generally, inter-enterprise links, both those established as a result of the central planning system, but as importantly, if not more so, also the widely practiced informal enterprise networks that characterized actual day-to-day operations (as distinct from the theoretical plan and allocation system), broke down or at least suffered severely from the break-up of the Soviet Union.¹⁶
2. Budgetary and investment subsidies were eliminated across republics. Central Asian countries had received between 5 and 30% of their GNP in fiscal revenues from the Union budget (Alexashenko, 1993, p. 293).
3. Implicit price subsidies were reduced or eliminated, including for energy. According to other estimates, Russia's price subsidies to other countries and republics amounted to \$58 billion in 1990, of which \$40 billion went to the Union republics and \$18 billion to CMEA countries (World Bank, 1996).
4. Formal customs and trade barriers were introduced (Wolf, 1993; Komarov, 1993; Freinkman, Polyakov and Revenco, 2004). In addition, informal trade and transit barriers became common. For example, according to some estimates, a Kyrgyz truck crossing Kazakhstan has to pay \$1,500 in bribes and informal fees (EBRD, 2003). Among some of the republics borders were closed, for reasons of conflict, security or misguided economic policy.
5. Transport prices were raised and transport services reoriented. A reduced frequency and longer train travel times were reported between Russia and other CIS Republics

neither offered a satisfactory mechanism of mutual deliveries, nor did it offer an applicable system of payments among the republics; thus some of the enterprises lost their traditional suppliers, others lost their trade channels, and yet the others lost an effective demand. These factors led to drastic production decline. As a result of FSU's disintegration multiple trade barriers among the republics have arisen; some of the oil and gas pipelines were "closed", the supply of electro-energy was stopped, the production of goods which were previously supplied to the other republics started to shrink, the economic ties were partially destroyed due to technological redistributions."

¹⁶ For a description of formal and informal links among enterprises, see Sutela (2003). Kovaleva et al. (2002) summarize the overall impact for the FSU as follows (translation by Ayla Azizova): "Thus in FSU many products were produced based on cooperative connections. Specifically this was the case for the machine manufacturing industry. When individual components were produced by different factories, many enterprises acted as separate links in technological chain of production of a final product. Upon FSU's breakup, when these links had to span different countries, the breakup of the former ties negatively affected the production process. According to the estimates of economists one third part of production decline is due to the broken economic connections."

(Djankov and Freund, 2000). Air traffic collapsed as witnessed by the many decaying airplanes discarded on formerly busy airports throughout the FSU.¹⁷

6. Integrated power grids collapsed (in the South Caucasus and Central Asia) and integrated water systems (esp. in Central Asia) gradually deteriorated negatively affecting the quantity and quality of essential water services for irrigation and human consumption.
7. Three million Russians, many of them highly skilled, returned to Russia from other CIS Republics, esp. from Central Asia and Russia (Hill and Gaddy, 2003). They faced, and caused, significant problems of resettlement in an economically depressed Russia.
8. The central Soviet administration collapsed and new Republic administrations had to be created. Tight control over internal security evaporated and hence war and civil unrest broke out in the initial years after independence, leaving lasting scars of destruction, border closings and millions of refugees and internally displaced persons, esp. as a result of the ethnic conflicts in Georgia and the Armenian-Azeri conflict in Ngorno-Karabakh.

Evidence of disintegration of economic space exists not only for economic and institutional links among countries, but also within countries, especially for the larger countries such as Russia and Ukraine. For example, Hill and Gaddy (2003) note that in 1992 there were growing “fears of disintegration” in Russia as a number of the oblasts took steps designed to increase their autonomy, when they “implemented legislation...at odds with federal law...adopted protectionist economic policies, levied tariffs on goods from other regions crossing their territory, and refused to remit tax revenues to the central government.” (p. 111/2) Hill and Gaddy further quote geographer Grigory Ioffe who noted that “the systematic attempts of regional authorities to fence off their respective areas from the rest of the country’ simply exacerbated the already acute fragmentation of Russia.” And the poor federal revenue performance which was a direct cause of the 1998 financial crisis could in part be traced back to the lack of tax revenue deliveries from the regional to the federal authorities. In addition, transport within Russia deteriorated due to growing weaknesses in the rail sector (Kontorovich, 1992) and deterioration in other forms of transport and communication, especially for the more remote regions, including air transport, shipping, and telecommunications. (Hill and Gaddy, 2003) Freight traffic declined by 42% between 1991 and 1997. Mail traffic declined by 83 percent between 1990 and 1996. (de Broek and Koen, IMF, 2000) In Ukraine, too, internal trade was hampered in the early years by efforts of provincial governments to protect their own economies from losses of essential products or their enterprises from competition from other regions or countries. Internal transit barriers, including at formal and informal road check points, also became ubiquitous in Central Asia, especially Kazakhstan and

¹⁷ Since the telecommunications sector was woefully underdeveloped from Soviet times (Brock and Sutherland, 2000), it suffered presumably less from the disintegration of the USSR. However, the lack of effective telecommunications may actually have made it more difficult to maintain long-distance relations among producers across long distances and new boundaries, once official planning channels broke down.

Uzbekistan. This form of internal disintegration took on extreme forms where domestic civil war broke out (Tajikistan) or separatist movements were successful in carving out increasingly autonomous territories (Azerbaijan, Georgia, Moldova).

Quantification of the economic impact of disintegration is difficult for a number of reasons: First, separating the impact of disintegration from other factors causing the transition recession (stabilization, price liberalization, etc.) is empirically difficult. Second, it may be impossible to separate the disappearance of value-reducing activities from those activities which, while inefficient, in aggregate produced value for the economy but collapsed due to the new barriers to trade and internal communication. Third, estimating the costs of disintegration in the many different areas cited above and aggregating them up into summary measures may simply be impossible. It is doubtful that cross-country regression analysis will help much in understanding and demonstrating the complex dynamic disintegration process in its multiple dimensions. But at this point fragmentary evidence can be cited which supports the view that the disintegration of economic space was a significant factor in explaining the transition recession.

First, at the most aggregate level, the disintegration story is consistent with the fact that the transition recession was most severe for the small, land-locked CIS republics which were most dependent on external links and financial transfers. In contrast the transition recession was least serious for the countries of Central Europe, which were least integrated into the Soviet system, although they too suffered a disintegration shock. Russia, Ukraine and the Baltic countries fall in between the two extremes in terms of the severity of both the transition recession and of the disintegration shock.¹⁸ The fact that the Baltic countries experienced a much more severe recession than the Central European (Figure 4) countries must to a large extent be due to the fact that they were much more integrated with the rest of the Soviet Union at the time of the break-up than was the case for the Central European economies. The fact that they recovered earlier and more quickly than Russia and Ukraine can be attributed both to their more effective reforms as well as to their progressive integration with Western Europe. They also did not suffer from the internal disintegration which characterized the Russia and Ukraine. It is also consistent with the fact that the recession in Albania was much less severe than in Georgia and Kyrgyz Republic. (Figure 5) Before the collapse of socialism, Albania was isolated from its neighbors and much of the rest of the world, and therefore did not experience a disintegration shock as severe as Georgia and Kyrgyz Republic, which were highly integrated in the Soviet economy.

Second, the decline in trade was dramatic: For the CIS, internal trade declined by 83-84% between 1991 and 1993 (Freinkman, Polyakov and Revenco, 2004). Between 1990 and 1992 exports among FSU republics dropped from \$320 billion to \$20 billion (Metcalf, 1997). While over time the CIS countries to varying degrees were able to redirect their trade flows to the rest of the world, this did not offset the trade losses they incurred from the collapse of their intra-CIS commodity exchange. According to Avenesyian and

¹⁸ Russia benefited from the discontinuation of the inter-republican transfers and price subsidies, which it in effect had mostly paid for. On the other hand, Russia took on all the external debt of the former Soviet Union.

Freinkman (2003), for Armenia the direct and indirect trade shocks – both price and demand shocks – resulted in an 85% loss of GDP, more than the maximum registered decline in GDP of 65% which occurred in GDP (see Figure 6).¹⁹ According to unpublished World Bank estimates, the Kyrgyz Republic in 1990 had about 13 million sheep, while by 2002 there were only about 3 million, since the country had lost most of its export markets with the FSU. For Central Europe early estimates show that significant portions of the transition recession could be explained by the trade collapse following the break-up of the CMEA. For example, Rodrick (1992) estimated that all the decline in Hungarian GDP 1990-91 can be explained by the trade shock, while this shock explained 60% of the decline for Czechoslovakia and between a third and a quarter for Poland.

Third, there is sporadic enterprise-level evidence which links the collapse of individual enterprises to disruptions in the supply and demand chain as new borders went up and barriers to trade, transit and payments arose. A well documented example is the case of the previously cited hay bailer factory in Bishkek which supplied the entire Soviet Union. Its production collapsed after independence, because it depended on the availability of a compressor part which was supplied during Soviet days by one Estonian and one Russian firm. After independence, the supply from Estonia ceased, since the Kyrgyz firm could not pay in hard currency, which caused the immediate loss of about half the production. The Russian parts producer, while able to maintain its supply for a while in a barter arrangement, could not offset the reduction in Estonian parts (Hare et al., 2000). Another example is the Kostroma Educational Farm in Russia, for which Clifford Gaddy noted down the following personal observations during a four-week visit in May-June 1991:

“In addition to other livestock, Kasapanov’s farm has 150,000 chickens. When I was here one year ago, the number was 250,000. Between then and now, Kasapanov [the Director of the farm] had to reduce the size of the flock by 100,000, owing to the inability to get the special chicken feed that they needed. In the (Soviet) past, the feed came from Ukraine. That supply pipeline has broken down. Kasapanov stressed that this reflects difficulties brought about by dissolution of the Union rather than market reforms per se. (Similarly, he mentioned that the same problem has arisen with special equipment needed for the replacement heifer program. The equipment had previously been imported from the DDR. He now will need hard currency to purchase spare parts, etc.).

“Kasapanov reported that as it became clear that the big farm could not sustain such a large poultry stock as before without the feed deliveries from Ukraine, he began parceling out the chickens to the workers and their families. Their ability to absorb chickens was fairly limited, however--a drop in the bucket compared to the 100,000 that needed to be removed from the flock.”²⁰

¹⁹ Avenesyanyan and Freinkman explain the difference between the economic cost of the trade shock and the actual loss in GDP largely by the ameliorating impact of policy reforms and external financial support which cushioned the impact of the trade shock.

²⁰ I am indebted to Clifford Gaddy for sharing his original field notes with me.

Having identified the issue and brought together evidence in support of the case that the disintegration of economic space was an important factor explaining the collapse of the economies of the former Soviet block, it is clear that there remain major research challenges. There are Aslund's questions about the accuracy of the national accounts data. There are important questions about how to separate out and analyze the impact of various phenomena that came together during the transition process: the impacts of macroeconomic stabilization, the negative oil price shock, the "creative destruction" accompanying enterprise restructuring, the disorganization in the production system, and disintegration of economic space. There is the question how to quantify and evaluate the impact of the removal of inefficient subsidies as separate from the introduction of inefficient barriers. And there are questions about how one can quantify and add up disintegration effects in their many different dimensions. Finally, there is the question whether it would be better to push the analysis forward in terms of case studies at the enterprise level, through country case studies or through cross-country econometric work.

However, before further pursuing such an ambitious research challenge, one may reasonably wonder why it is worthwhile trying to explain the transition recession in the former Soviet block at a time when Central Europe has joined the European Union and a strong recovery is underway in the FSU. Therefore the last section of this paper considers some of the implications of the disintegration story for the transition countries today.

Implications of the Disintegration Story

Aside from being of purely historic interest, it is important to understand the reasons for the sharp decline in the economies of the former Soviet block and the contribution which disintegration has made for a number of important policy reasons. First of all, there is the nagging question of whether market-oriented reforms really worked. The reality is that today in most CIS countries measured GDP is still below its 1990 level, public services are often of lower quality for a majority of the population, and poverty and social conditions are worse. This is attributed by many ordinary people, by politicians and by some analysts to the failures of market oriented reform and taken as a basis for recommending alternative strategies, including government-led industrialization strategies. If it can be demonstrated more generally, as Avenesyanyan and Freinkman (2003) did for Armenia, that the costs of disintegration exceeded the actual decline in GDP and that reforms actually substantially improved the situation compared to what would have happened without reforms this would help put to rest a lot of misplaced arguments about supposedly negative effects of market oriented reforms.

Second, there is the previously cited comparison of Russia's and China's trajectory by Stiglitz (1999), which he takes as proof of failure of the course of economic reforms pursued in Russia. As others have pointed out, initial conditions differed substantially between the two countries (e.g., World Bank, 2002; Sutela, 2003) and there are many reasons why China and Russia have followed different reform paths. Therefore, one can argue that the Chinese approach would not have been feasible or appropriate in 1992 in Russia. But one particular point has generally been overlooked in comparing China's and the FSU's experience: China did not disintegrate, the FSU did. Purely as a hypothetical

counterfactual imagine what might have happened had China broken up in the wake of the Tiananmen Square unrest of 1989, with the associated dislocations and struggle for independence in the new countries that would have taken the place of the former China. It stands to reason that (the former) China's growth path would have been seriously jolted, not perhaps unlike the deep recession that accompanied the Cultural Revolution which in many ways also represented a period of economic disintegration, not unlike what happened in the FSU.²¹

Third, the fear of further disintegration clearly remains a serious factor for many of the transition countries today. This is particularly the case for those countries that have been threatened by war or civil disturbance (in Central Asia and the South-Caucasus). But the experience of political and economic chaos and disintegration in the late 1980s and early 1990s also remains a major psychological factor driving public opinion and the leadership of today's Russia, which clearly places a great premium on maintaining political and territorial control. The fact that during the 20th century, Russia experienced three episodes of major threats to its political and economic integrity and survival (first WW I and the subsequent Bolshevik Revolution, then World War II, and third the collapse of the Soviet Union) is likely to be a major factor determining the views and actions of today's people and political leadership in Russia and elsewhere in the FSU.²²

²¹ Stiglitz blames, principally, the foreign advisers and the international financial institutions for the failure of Russia to follow the Chinese model (Stiglitz, 1999). This critique is misplaced as it misses an essential element of path dependency. Foreign advisers and international financial institutions only came on the scene of the Soviet Union around 1990 and thereafter. By then, however, the process of disintegration of political and economic control and cohesion in the Soviet empire and the Soviet Union had so far progressed that it would have been illusory to argue for a Chinese model. This model required a very high degree of central control that could only have been exerted through a strong party discipline which was clearly lacking in Russia by that time. In any case, the Russian reformers were of no mind to listen to gradual or partial economic reform proposals which had been discredited by the failure of the Gorbachev reforms. If there was a time for the Soviet Union to seriously contemplate implementing China-style reforms it would have been in 1985 when Gorbachev came to power. Whether such an approach to reform would actually have worked, given the very different structural, institutional and historical situation of the Soviet Union compared with China when it started its reforms, is an open question, at best. Sutela (2003) argues that possibly the right time for a China-like reform approach would have been the 1970s. But in any case, he agrees that a China-style reform was out of the question in 1990/1991 for Russia.

²² According to opinion polls between 70 and 85% of the Russian populations have consistently expressed regrets about the disintegration of the USSR (see Public Opinion Foundation, various polls). And for Russia, Mr. Putin stated in an interview with journalists published in the year 2000: "Believe me, already in 1990-91 I knew perfectly well, as arrogant as this may sound, that with the attitude toward the army that prevailed in society, the attitude towards the secret services, especially after the fall of the USSR, the country would soon be on the verge of collapse. This brings me to the Caucasus. Because, after all, what essentially is the present situation in the Northern Caucasus and in Chechnya? It's the continuation of the collapse of the USSR. And it's clear that at some point it has to be stopped. Yes, originally I had hoped that the economic growth and the development of democratic institutions would halt the process. But life and practice showed that this did not happen." Cited in Gaddy and Ickes (2002), p. 207. I am grateful to Clifford Gaddy for pointing out this important reference. In February 2004 Mr. Putin "used a campaign speech Thursday to declare the demise of the Soviet Union a 'national tragedy on an enormous scale,' in what appeared to be his strongest-ever lament of the collapse of the Soviet empire." Cited on February 12, 2004 in Associated Press (2004).

Fourth, against the backdrop of the dramatic disintegration of the past, integration of the transition countries with each other and with the rest of the world is essential to assure continued recovery and rapid growth. The EU accession countries of Central Europe are furthest along this path, of course. They are followed by the countries of Southeast Europe, where it now looks that in the long term integration with Europe will provide significant political and policy stability and a framework within which recovery can materialize. Albania is an interesting case study: Having experienced only a reasonably modest initial economic decline because it was spared the costs of disintegration, Albania has since benefited tremendously from a rapid integration with the rest of the world, given its ease of access, openness of economic policies, and external financial support. These are certainly among the major factors explaining the sustained growth of the Albanian economy to the point where today its per capita income is significantly above the level of 1990 in contrast to most CIS countries.

For the CIS countries it can also be argued that the sustained growth performance of recent years in good part is due to the reintegration process that has occurred, both within countries and across borders.²³ But for many reasons CIS countries face much greater hurdles than does Albania, given their geographical characteristics and prevailing policies. Russia and Ukraine are especially dependent on integration with Europe and the rest of the world. Early WTO accession is a key for this, as is a less restrictive treatment of these countries by major Western partners in terms of trade, visa access, etc. But it is also important that they move on internal reintegration as they have already to some extent, but bearing mind, in the case of Russia, that this has to go hand in hand with a reorientation of regional development away from isolated and excessively cold locations in Siberia (Hill and Gaddy, 2003). For the smaller CIS countries, integration and cooperation with their regional neighbors is essential, not least so as to permit more effective integration with the rest of the world, given their land-locked location. Indeed, a failure to counter continuing forces of disintegration (e.g., in the Caucasus, but also in Central Asia), can rapidly turn these regions into political and security quagmires. In this they will need a lot of pushing and help from the outside.

At the same time, integration in the CIS will have to grapple with some important challenges: First, it will have to be different from the artificial and inefficient economic integration of the past. Second, it will have to avoid the mistakes of seeking to create regional trade blocks behind high protective barriers. Third, to the extent such integration initiatives are promoted by Russia they will run into suspicions that they are merely a pretext for the rebuilding of a modern version of the Tsarist/Soviet empire. Suspicions aside, Russia will have to play a major economic role in helping to reintegrate the region, just like the US has done in the Americas and the big Western European countries have done in the EU and in Central Europe. The readiness of the US, Japan and the EU to assist Russia, Ukraine, Kazakhstan and other CIS countries to join the WTO, and

²³ Successful recent non-energy export growth of Russia is substantially due to a revival of its machinery and chemical goods exports to its CIS neighbors. Based on this experience a recent World Bank report concludes: "Further integration of trade within the CIS would therefore appear to be a winning strategy for harnessing overall growth in the region, and seems certain to continue to benefit Russia's manufacturing industries." World Bank, 2004, p. 8)

industrial country support for regional economic cooperation and integration in the fragile regions of Central Asia and the South Caucasus could be major factors in assuring that the reintegration challenges of the CIS are effectively and constructively met.

Conclusions

This paper has argued that the disintegration of economic space has been a major factor explaining the economic collapse of the transition countries in Europe and Central Asia. While disintegration by no means has been the only factor behind this collapse, it is a curious phenomenon that economists – who in other contexts tend to stress the benefits from integration – have neglected the particularly striking phenomenon of disintegration in explaining the economic trajectory of the transition process.

The evidence which this paper was able to assemble in support of its hypothesis remains fragmentary, partial and even speculative. However, to its author the evidence appears sufficient to make the case that disintegration has mattered and that neglecting it as a factor runs the risk of seriously misinterpreting an important recent historical event. It also risks blaming the supposed failures of reforms for the dramatic transition recession, when in fact they appear to have contributed to ameliorating the negative impacts of disintegration and have set the stage for a lasting recovery. Nonetheless there remains a major research agenda at both the conceptual and the empirical level to sharpen and deepen the analysis advanced here, difficult as it may prove to be.

The paper also argues that economic reintegration of the region and integration with the rest of the world offer an opportunity for sustaining the recent strong recovery. In pushing forward with such reintegration the principal focus should be on lowering barriers to internal trade and transit and to internal mobility of labor, capital and knowledge within countries and within the region, while at the same time aiming at integration of the region with the rest of the world. It is perhaps a salutary irony of history that the dramatic disintegration of the Soviet Union – which as a successor to Tsarist Russia could be seen as one of the largest and longest lasting empires in history – also created the opportunity for a long-term integration process spanning the two continents of Eurasia, from the Atlantic coast of Portugal to the Pacific shores of Japan, and from northern-most Russia to the southern tip of Sri Lanka.

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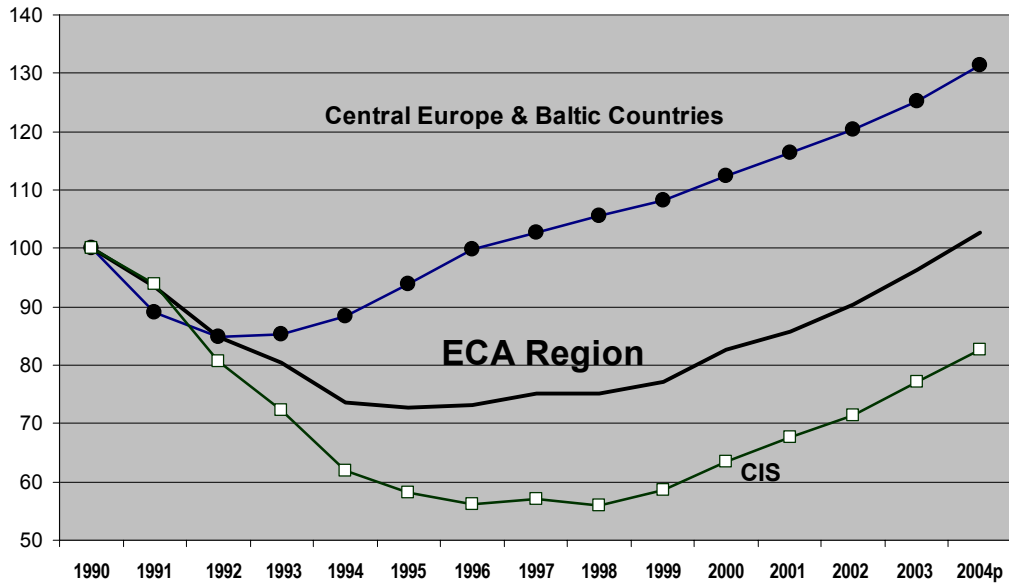
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Figure 1

ECA: Index of Real GDP
(1990=100)



Source for Figures 1 and 2: World Bank

Figure 2

ECA: Real GDP Growth
(In percent change, %)

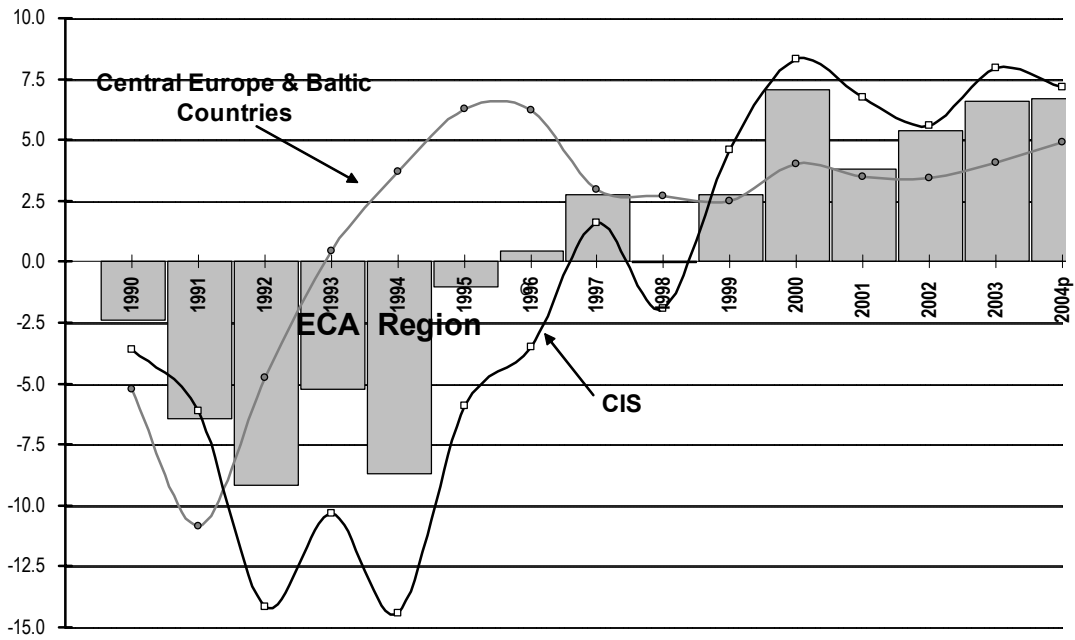
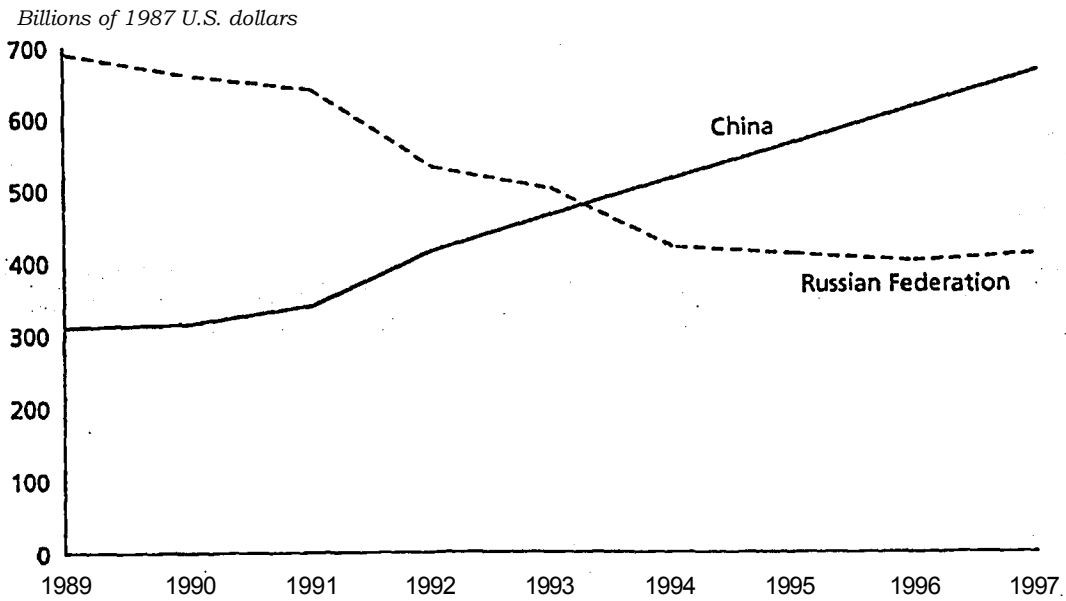


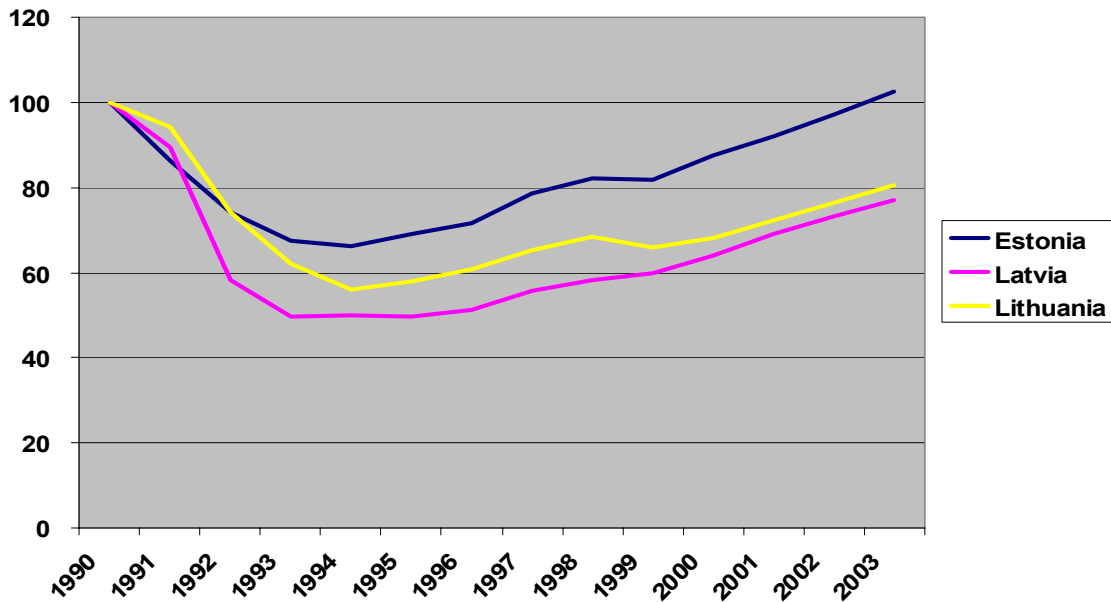
Figure 3

Russian and Chinese GDP, 1989-97



Stiglitz, Joseph E. 'Whither Reform: Ten Years of the Transition'. Annual World Bank Conference on Development Economics, 1999.

Figure 4
Index of Real GDP
(Index 1990 = 100)



Source: World Bank

Figure 5: GDP per capita trends in Albania, Georgia and Kyrgyz Republic (constant 1995 US\$)

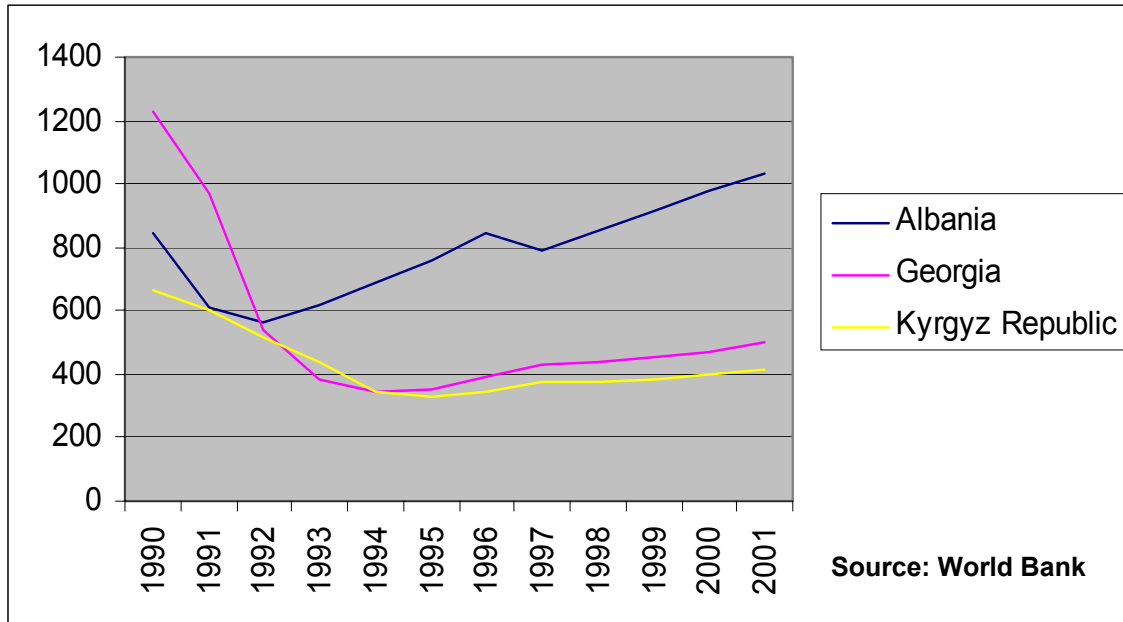
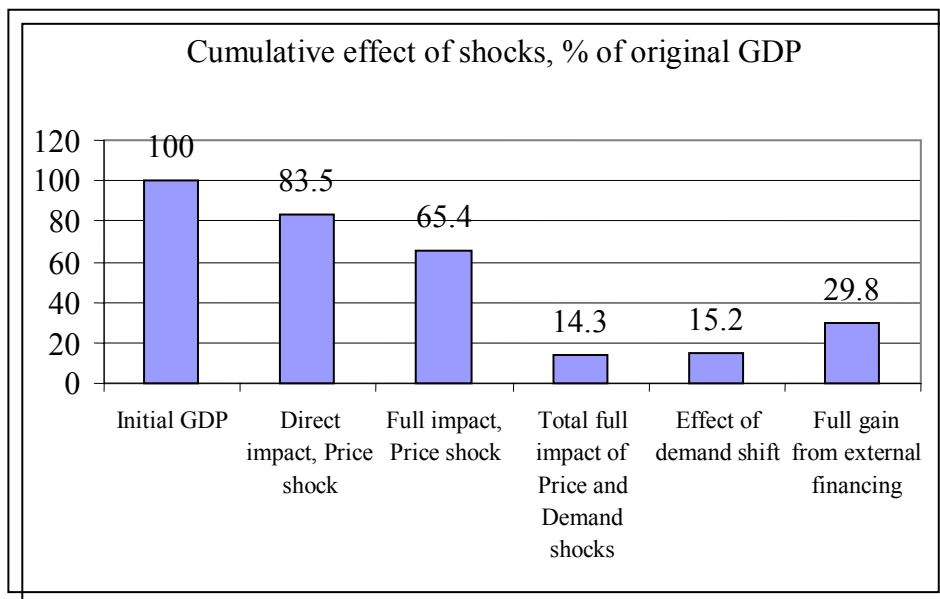


Fig. 6. Comparative effects of various shocks in Armenia



Source: Avenesyanyan and Freinkman, 2003