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Armenia

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CURRENCY EQUIVALENTS

Currency Unit = Ruble

US\$1.0 = Rb 620

(as of February, 1993)

FISCAL YEAR

January 1 - December 31

ACRONYMS AND ABBREVIATIONS

AR:	=	Armenian Railways
CEEC:	=	Central and Eastern European Countries
ECA:	=	Europe and Central Asia
FSU:	=	Former Soviet Union
GDP:	=	Gross Domestic Product
GNFS:	=	Goods and Non-Factor Services
GNP:	=	Gross National Product
IAEA:	=	International Atomic Energy Agency
MOT:	=	Ministry of Transport
NBA:	=	National Bank of Armenia
NGOs:	=	Non-Governmental Organizations
NMP:	=	Net Material Product
NPP:	=	Nuclear Power Plant
OECD:	=	Organization for Economic Cooperation and Development
SNA:	=	System of National Accounts
SOE:	=	State Owned Enterprise
SPERBANK:	=	State Savings Bank
USAID:	=	U.S. Agency for International Development
VAT:	=	Value added tax
VEB:	=	Vneshekonombank

VOLUME II ANNEXES

The attached set of Annexes covers sector-specific issues in more detail than the main text. For a review of the agricultural sector, the reader is referred to the document Armenia: Introduction to the Agricultural Sector, published by Agriculture, Industry and Finance Division, country department III, Europe and Central Asia Region, on June 23, 1992.

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ANNEX I

TRADE AND TRADE POLICY

1. This chapter examines questions related to trade and trade policy. The first section explores the role of trade in the Armenian economy, discussing the contribution of trade to domestic output, the structure of exports and imports, and the relative importance of trading partners. The second section describes the current trade regime and its institutional framework. The third section discusses the issues facing the Armenian Government and the fourth presents some recommendations.

A. Role of Trade in the Economy

2. Armenia is a small, relatively industrialized country with a trade-dependent economy and a highly-skilled labor force. While the share of trade in GDP has been declining since 1988 when it stood at over 50%, Armenia is still an open economy with imports and exports representing in 1991 37% and 24% of GDP, respectively (55.7% and 38.7% of GDP for the first two quarters of 1992). Current data show that the decline in trade (in real terms) in 1991 was almost twice the contraction experienced by the economy at large (see box). Severe reductions in trade volumes are also projected for 1992, given a combination of events with adverse economic consequences. Prominent among these are: the disruptions in Armenia's trade routes through both Georgia and Azerbaijan; the virtual collapse of the payment system for interrepublican trade; and the demise of Vneshekonombank, the only financial institution with correspondent accounts abroad, with the subsequent freezing (in December 1991) of all of Armenia's foreign exchange reserves.^{1/}

Economic Indicators

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
	(in million current rubles)				
GDP	8054	9490	9692	15937	70138
Imports	5389	4898	4662	5809	10333/1
Exports	3813	3691	3523	3732	7184/1
	(as % of GDP)				
Imports	66.9	51.6	48.1	36.4	55.7
Exports	47.3	38.9	36.3	23.4	38.7
	(in constant 90 rubles)				
GDP			9692	7957	3686
Imports			4662	2900	
Exports			3523	1863	
	(% change in real terms)				
GDP				-17.9	-52.0
Imports				-38	
Exports				-47	

^{1/} First half of 1992. No growth rates have been projected for exports and imports for 1992.

^{1/} Total claims (public and private) of Armenia on this bank are estimated at 53 million convertible rubles and about US\$ 12 million, including US\$ 5 million in earthquake relief and US\$ 7.2 million in deposits of the Yerevan branch.

Preliminary information on the first four months of 1992 indicates a more than 50% contraction in rail import volumes compared to the corresponding period in 1991.

3. The former centralized system resulted in production and trade patterns among the republics which were not always justified on the grounds of comparative advantage. Under this system, Armenia was placed in the position of producing industrial intermediate and finished goods. The country is not well-endowed with raw materials and has not developed primary processing facilities; as a result, it relies on imports of semi-finished goods as inputs into domestic industry. Armenia exports mainly light industrial goods, processed foodstuffs, machines and chemicals; these four categories of goods accounted for 85% of total exports in 1990 (see Table A1b) -1991 also - see table A2. Imports are mainly energy, semi-finished products and foodstuffs; some 80% of imports in 1991 were classified as industrial goods.

4. Since the 1988 earthquake destroyed substantial productive capacity, Armenia has consistently been running a trade deficit. This deficit extends to all sectors of activity with the exception of light industry (and "other"). The biggest deficits are on energy products and foodstuffs, with the two sectors accounting for more than half the trade deficit in 1990. Further adjustments in the prices of imported fuel and gas to bring them in line with international prices would widen this deficit. In the absence of unit values, it has not been possible to do a calculation of the impact of changes in the terms of trade on Armenian economy. However, it is quite likely that as a net importer of raw materials, Armenia has experienced and will continue to be affected by substantial terms of trade shocks.

5. Important for evaluating various options for future trade policy is the high level of integration of the Armenian economy into the FSU market. FSU trade dominates Armenia's trade flows, as shown in the box table. The former Soviet Union market constitutes practically the only destination for Armenian exports, accounting for about 97% of total exports in the 1988-91 period. Interrepublican transactions also account for more than 75% of total imports (FSU imports accounted for 99.5% of total imports for the first 6 months of 1992). Foodstuffs and inputs destined for Armenia's light and food industries constitute the bulk of foreign (non-FSU) imports. The table also shows that the foreign trade imbalance drives Armenia's trade deficit, accounting for more than 90% of the total in 1990

Trade Flows

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992/1</u>
	(in million current rubles)				
Imports	5389	4898	4662	5809	10333
Interrepublican	4531	3842	3508	4428	10282
Foreign	859	1056	1154	1382	51
Exports	3813	3691	3523	3732	7184
Interrepublican	3729	3598	3428	3613	7090
Foreign	84	93	95	120	94
	(as % of total)				
Interrepublican imports	84.1	78.4	75.3	76.2	99.5
Interrepublican exports	97.8	97.5	97.3	96.8	98.6

1/ First two quarters of 1992

(60.7% in 1991 and there is a surplus of R 42.8 million on the foreign trade account for the first half of 1992).

6. Detailed data obtained for production and trade in intermediate industrial goods (for 78 product categories) show that more than 50% of total domestic production (in value) in 1991 was destined for the FSU market (see table). Eliminating from the database those goods which are consumed totally by the domestic market shows that more than two-thirds of total production for the remaining 57 products (1,361 million rubles) is exported to other republics. A sizeable segment of the country's industrial sector appears to have been designed to supply the former Soviet Union market. Unless trade in these commodities reflects Armenia's comparative advantage (which seems unlikely), these enterprises will have to be radically reduced in size or closed down once this market is fully liberalized.

7. Within the FSU zone, two countries dominate Armenia's trade. Direction of trade data show that Russia and the Ukraine accounted respectively for 60% and 20% of Armenia's intermediate industrial goods exports to the FSU in 1991. An additional 10% of such exports went to Kazakhstan, Georgia and Belarus. Information obtained from the 1991 Plan covering all trade (intermediate and final goods) confirms this picture for exports. It also shows that Russia and the Ukraine were expected to account for a similarly large share of imports, with Kazakhstan, Uzbekistan and Turkmenistan assuming greater importance given their role as raw material and energy exporters. (see table 3.6).

B. Current Trade Regime

8. Armenia's current trade policy is largely consistent with the Agreement on the Principles of Customs Policy signed on March 13, 1992 by eight of the former Soviet republics.^{2/} This Agreement aims to preserve and strengthen the common economic space of the FSU countries by providing for the free movement of goods within the area and by conducting a coordinated customs policy, including harmonized customs regulations and procedures, with respect to third countries. To implement these goals, the Agreement calls for the creation of a Customs Union among the contracting parties with a general customs tariff and duty-free intra-Union trade, and seeks uniform domestic taxation of international trade. Accordingly, Armenia exempts from duty imports from FSU countries (including from non-signatory ones) and applies the former Soviet Union tariff rates on imports from third countries. However, Armenia maintains licensing requirements for some exports, including to Union countries, imposing in effect quantitative restrictions on such trade.

9. The extent to which other countries adhere to the Agreement at present is unclear. While no information could be obtained on external tariff rates applied by other countries, authorities confirmed that trade within the FSU was indeed conducted duty-free. This indicates the existence, for the time being, of at least a free trade area and possibly of a customs union. This arrangement could, however, be short-lived if Russia starts imposing duties also on imports from FSU countries as heralded by its June declaration. No meaningful regional preferential trade arrangements can exist

^{2/} Other signatories are: Belarus, Russia, Kazakhstan, Kirgizstan, Tajikistan, Turkmenistan and Uzbekistan.

without Russian participation and the recent announcement reduces substantially the likelihood that the March 13 Agreement will be upheld.

1. Institutional Context

10. The main agency in charge of making and implementing trade policy in Armenia is the Department of Foreign Economic Relations of the Ministry of Economy. This Department has two divisions responsible respectively for Inter-Republican Economic Relations and for Foreign Trade. In addition, the Licensing Agency is in charge of delivering export and import licenses. Projections of future trade flows and negotiations of trade arrangements with other countries are done by the Department of Foreign Economic Relations while the State Committee on Statistics of the Ministry of Economy is in charge of tabulating historical trade data.

11. The Customs Department has been set up only since January 1992 to take over the responsibilities previously assumed by the centralized Soviet Customs agency. In the current institutional set up, the Customs Department reports directly to Parliament through the Prime Minister. It is, as a result, completely independent of the Ministry of Finance and the Ministry of Economy; furthermore, the organizational structure does not provide for interface with the Tax Inspectorate (also headed by an official of Ministerial rank) at the level of the administration.

12. Procedures are still in the process of being put in place for customs clearance, transit trade, and data collection. Some of these currently fall within the purview of the Customs Council, established by Agreement on the Principles of Customs Policy. Two separate Agreements stipulate rules governing transit trade. The first, signed by 11 FSU states on February 8, 1992,^{3/} sets the general conditions for the treatment of transit trade, exempting such goods: from customs duties, taxes and customs clearing fees in the states of transit; from the need to obtain authorizations for transit; and from customs inspection. The second, signed on April 2, 1992, establishes detailed implementing regulations, including documentation and reporting requirements and verification procedures for transit and re-export trade.

13. The Customs Department has no historical data on international trade. It started collecting data on trade with non-FSU countries in January 1992 when it was set up. However, intra-FSU transactions have been recorded only since May 1992, when the obligation to fill out customs declaration forms -- waived until recently in view of exemption from customs duties -- was also extended to such trade. However, all customs clearing and data tabulation are done manually at present, increasing the risks of errors and fraudulent reporting.

14. Armenia's trade links with the outside world are assured largely through two railroad connections passing through Georgia and Azerbaijan. In the past, railways accounted for approximately 70% of all international traffic. At present, links with Georgia are frequently interrupted reflecting unstable political conditions in this country; also, recently the flow of supplies from Russia appears to be affected by the conflict between those two countries over ethnic minorities. The trade route through Azerbaijan, which accounted for the bulk of Armenia's international freight

3/ Only Georgia and the Baltic states are not signatories.

transport, remains almost completely disrupted given the intensification of conflicts over the enclave of Nagorno-Karabakh. The authorities do not expect this situation to change any time soon. They believe that the opening of the border with Iran (the reconstruction of a connecting bridge was completed in May) provides the most realistic means of obtaining an alternative link to the outside world as the conflict with Azerbaijan also appears to be inhibiting the establishment of normal trading relations with Turkey. Armenia has also reached agreement with Iran on the creation of Armenian zones for transshipment of goods at two Iranian ports opening on to the Caspian Sea and the Persian Gulf. Discussions are underway for obtaining similar treatment at the port of Poti in Georgia.

2. Inter-republican Trade

15. Current arrangements for inter-republican trade remain largely unchanged from those prevailing under the Soviet regime. This is due to the authorities' desire to avoid disrupting traditional trade links before new ones have been forged. In the absence of these conventional markets and suppliers, the concern is that domestic production might come to a complete halt.

16. No duties are levied on imports originating from other FSU countries and Armenia's exports benefit from reciprocal treatment. Inter-republican trade is dominated by the system of state orders and bilateral trade protocols. No import licenses are required but exports are subject to multiple restrictions (see below).

17. It appears that rules of origin are used to determine eligibility for preferential tariff treatment. It is worth noting that a full-fledged customs union with a common external tariff vis-a-vis third countries would not need rules of origin to regulate intra-Union trade. Under a customs union, any good imported from another member country would be entitled to duty-free treatment under the assumption that either the good is 100% domestically produced or that if it is imported or produced using imported inputs, the imports in question have paid the common external tariff at the point of entry into the Union. By contrast, rules of origin are essential for determining eligibility for preferential treatment in the context of a Free Trade Association where member countries practice national tariff rates.

18. Inter-republican trade is governed by bilateral arrangements with each of the countries in the former Soviet Union. These trade protocols specify Armenia's imports and exports by volume. While price quotations are included in some protocols (world prices are used to the extent possible, especially for internationally traded commodities), these are only indicative; only volumes are "binding." Enterprises have been given responsibility for negotiating prices, with the explicit intention of increasing enterprise autonomy and moving increasingly towards market-oriented prices. However, there is some inconsistency in these arrangements; prices cannot be freely negotiated if the volumes are truly binding and volumes are not binding if the delivery fails to take place because no mutual agreement is reached on prices. In practice, the implementation of the trade protocols appears to be subject to discretionary control by the authorities depending on the nature of the goods in

question, with the state resorting to dictating prices if necessary to secure the purchase of strategic goods.^{4/}

19. Substantial decentralization has occurred in the execution of the bilateral agreements. While in the past, all intra-Union trade was carried out by centralized trading institutions organized along product lines, enterprises are now responsible for the receipt and delivery of goods themselves. As a result, some direct links appear to have been established among enterprises of the FSU, even while inter-republican trade continues to be subject to planning within a highly centralized and circumscribed framework.

20. The basis for the current trade protocols is provided by the barter arrangements of 1990. These were based on an artificial division of production and trade imposed by the Soviet authorities, requiring delivery of pre-set volumes without any reference to "market" values. As such, the trade protocols may yield significant trade imbalances between Armenia and its trading partners when the terms of trade are evaluated with reference to market or world prices. Given the sharp increases in the prices of raw material imports in particular, it is expected that Armenia will run a large trade deficit on interrepublican trade in 1992 (R 3192 million for the first half of 1992). Even though clearing arrangements have been signed with some countries (Russia, Ukraine, Turkmenistan), the authorities had not yet determined how these trade imbalances would be settled.

21. While no import licenses are required for inter-republican trade, a number of restrictions remains on exports. The most important are the obligatory deliveries of enterprise output to the state; these represent in effect production and export quotas. The institutional arrangements in this area differ only marginally from past practices.

22. On the basis of information provided through various sectoral ministries on the Republic's "needs" and in view of the trade protocols signed with other republics, the Ministry of Economy determines the country's production priorities. It then stipulates to domestic enterprises the Government's demand for output and engages in turn to furnish the necessary inputs. While in the past Government demand accounted for 100 percent of local production, this figure has reportedly now declined to 50-60 percent and varies depending on the product, ranging from 100 percent for "sensitive" products, such as foodstuffs and medication, to insignificant amounts for some consumer goods. Once the enterprise has delivered to the Government the production required for the domestic market (for distribution through the Government's wholesale and retail distribution network), has shipped to other republics the amounts stipulated in trade agreements and met the requirements of the stabilization fund^{5/}, it is free to dispose of its remaining output as it sees fit. In principle, the Government's undertaking to furnish inputs extends only to the output demanded, for any production

^{4/} The mission was advised, for example, that an Armenian enterprise unwilling to deliver pumps to a firm in Tajikistan at the price proposed by the latter was instructed by the authorities to proceed with the transaction so as not to jeopardize deliveries of cotton -- a "strategic" good -- from another enterprise in the same republic.

^{5/} The stabilization fund represents Government claims on enterprise production (the percentages vary across products) which can be used at a later date for barter transactions. The fund was set up for fuel, butter, grain and sugar and slated for elimination at the end of the year.

over and above that amount the enterprise being left to its own devices to find suppliers and markets. In the current circumstances, field visits revealed that enterprises were obliged to find their own sources in view of the Government's inability to carry out its commitments.

23. In addition to the quantitative restrictions on exports implicit in the arrangements discussed above, a license is required for the export (both within and outside the FSU) of 56 product categories. There appear to be two reasons for requiring licenses: i) to monitor that enterprises are fulfilling their obligations to supply the domestic market; and ii) to ensure that Armenia is obtaining a fair value for its strategic exports. Some of the goods which are subject to export license requirements represent products for which Armenia was the sole centralized producer under the Soviet regime. In light of this historical production monopoly, the Government of Armenia wishes to ensure that export contracts involving these products take full advantage of the premium these goods should command within the FSU. As a result, in order to obtain an export license, an enterprise has to present to the Licensing Agency of the Ministry of Economy a copy of the sales contract, including the nature of goods imported as a counterpart to the export. The export license can be denied if local demand has not been met or if the terms of the contract are unsatisfactory, including if the goods to be imported are not considered a "priority" for the country at the time.

24. While the broad framework for the conduct of inter-republican trade remains unchanged, the system has undergone some transformation -- in part involuntary and in part due to explicit policy changes. The developments have been largely positive in that they are paving the way for a transition to a more market-based approach. These include: i) the decline in the share of state orders in total production; ii) enterprise-level negotiation of prices for trade specified in state protocols; iii) enterprise responsibility for delivery of the barter goods to other FSU countries although the Ministries and their agencies continue to handle domestic trade; iv) the breakdown of the system of Government delivery/guarantee of raw materials and the consequent need for enterprises to fend for themselves. All these encourage the development of enterprise to enterprise links and reduce reliance on the state for supplies as well as markets.

25. While central control over trade transactions has weakened and factors such as inertia, lack of competitiveness and the relative facility of transacting within the ruble zone are important incentives for continuing to trade with the FSU zone, the system of state orders and the bilateral trade agreements continue to bias trading decisions by acting as quantitative restrictions on exports outside the ruble zone. They impose a very high implicit tax on imports since by discouraging exports, Armenia deprives itself (or increases the cost) of the foreign currency which it needs to be able to import. This results in significant protection for import competing industries despite a relatively liberal system of imports.

3. Foreign Trade

26. Armenia applies the former USSR rates on imports from outside the FSU zone; these rates range from 0 to 15%. Import duties are collected at the Armenian border and Armenian goods transit through Russia and Georgia free of customs duties. Relations with Russia on transit matters are conducted within the framework of the multilateral agreements mentioned earlier. The authorities plan on negotiating a bilateral agreement with Georgia to provide a similar legal basis for current practices. Import declaration forms, accompanied by supporting documentation, contain the necessary

information to allow customs officials to distinguish between goods in transit and goods originating from other republics. In addition, detailed and coordinated verification procedures are designed to ensure proper follow through of goods in transit.

27. No import licenses are required except for health and safety reasons. A foreign exchange tax on exports was eliminated early this year but export licenses continue to be required for 56 products (the same as for interrepublican exports). As already discussed, export licensing requirements together with the state order system act as a disincentive to exports. At a time when Armenian enterprises should be encouraged to seek alternative outlets for their products, these restrictions are a particularly costly way of subsidizing domestic consumption. Export restrictions also serve to perpetuate the foreign exchange shortage created by the freezing of Armenian accounts in Vneshekonombank-Moscow (about \$12 million and 53 million convertible rubles), thereby contributing to a severe contraction in imports.

28. Foreign exchange unavailability rather than governmental regulations hamper enterprises' ability to import. 100% retention of foreign exchange is allowed and on May 14, a new law was adopted which extends the right to open foreign exchange accounts to all residents. While some restrictions are applied on individuals (only for foreign travel etc), enterprises have legal access to foreign exchange for their foreign trade transactions. However, in the absence of foreign exchange in the banking system and a very limited unofficial market, enterprises which require imports are obliged either to export or to procure foreign exchange in other countries of the ruble zone.

29. Institutional weakness reinforces the financial constraints on foreign trade transactions. The severing of ties with the centralized trading organizations appears to have resulted in a loss of expertise and of commercial ties with companies abroad. Local companies will require time and assistance to establish such commercial links and to acquire marketing know-how. In addition, arrangements for freight forwarding appear to be disrupted, further hampering the development of international trade. In view of this institutional and financial hiatus, this year the Government decided to engage in government to government trade arrangements with a number of countries outside the FSU, including with Kuwait, Iran, Mongolia, Poland, Bulgaria, Hungary, Rumania and Cuba. All of these agreements are based on barter. While the authorities indicated that there have been some private imports and exports this year, they were unable to provide any data or details.

C. Issues

30. The main issue that is examined in this section is the appropriate trade policy for a land-locked, highly trade dependent country such as Armenia. In this context, special considerations for the short-term are highlighted. The discussion of trade policy encompasses the tariff regime, the state order system and other quantitative restrictions on trade, the institutional context and the taxation of international trade.

31. The Armenian Government is in the process of reexamining its foreign trade policy and evaluating the merits of different courses of action. In making its assessment, the Government will have to consider a number of factors over which it has little control: i) the future of the ruble zone; ii) the trade policies of other FSU countries; and iii) the evolution of domestic prices and exchange rate movements. Other features of Armenia's current economic and trading environment

will also require special consideration. As already discussed in Section A, trade accounts for a large share of gross national product and trade with FSU countries for an overwhelming share of total trade and total production in some subsectors. The Armenian industrial structure is facing upheaval due to a disruption in the system of state orders, a crisis in the financial system, a transport blockade, energy shortages and high levels of inflation. The conjunction of a high level of dependence on intra-FSU trade, lack of familiarity with alternative markets and suppliers, uncertainty about the ability of Armenian industries to compete on international markets and a rapidly changing business environment at home calls for caution in the design of trade policy. While an open trading economy based on low import tariffs is an important medium-term objective, some transitional measures may be required in an interim period to cushion the impact of reform on domestic industries. In particular, preferential access to the FSU market is likely to be a primary consideration in this transition period, which Armenian enterprises could use to prepare themselves for full competition on world markets.

1. Options for Trade Policy.

32. The trade policy options available to Armenia to manage the transition from the current highly-regulated and rigid system to an open and fully liberal one are explored in the following paragraphs. Decisions on trade policy are interlinked with the expected evolution in the exchange rate and in the monetary union. While the current undervaluation of the currency (620 rubles:US\$1 in February 1993) provides substantial protection to Armenian (and FSU) industry, this situation can not be expected to continue. In view of other considerations which militate against recommending the introduction of a national currency in the short term (see paras. 66-69 in Vol I, chapter II), the discussion below assumes that Armenia will stay in the ruble zone during the period of transition (12 months), and that the ruble will become a convertible currency with a more realistic rate of exchange in the near future.

33. In the current circumstances, there are three possible options for trade policy:

- i. completely independent trade policy -- i.e. Armenia sets its own tariffs applicable to all imports.
- ii. Customs Union with FSU countries -- i.e. a common external tariff with duty-free trade among the Union members.
- iii. Free Trade Association with FSU countries -- i.e. country specific customs tariffs but duty-free trade within the Free Trade Area.

34. The relative merits of the three options are examined below:

- i. A decision to pursue an independent trade policy means that Armenia would face positive tariff rates on its exports to the FSU countries. In light of the country's dependence on FSU countries as export markets, the main issue for consideration is whether this would be the best course of action given on the one hand the importance of maintaining domestic production at the present difficult time and on the other the need to diversify trade partners. Would Armenia be able to compete with third

countries in FSU markets without the benefit of preferential access to those markets? Would FSU trade losses be offset by increased trade with other countries in the short run? This issue is particularly relevant in the present context of rapid change in the economic environment where the ability of the enterprises to find new sources of supply and new outlets for their products is limited.

- ii. Participation in a Customs Union implies an obligation to negotiate a common external tariff. The risk here is that the tariff structure which emerges from multilateral negotiations may not be to Armenia's liking -- that is, the levels and variance of tariff rates may be too high. In this case, the Government will have to evaluate the benefits of staying within the Customs Union which would permit duty-free import of raw materials from the FSU countries and preferential access to the Union markets for exports against the increased cost of raw materials and consumer goods imported from outside the FSU and the absence of incentives for Armenian industry to enhance efficiency so as to become competitive on world markets.
- iii. A Free Trade Association (FTA) has a number of advantages over a Customs Union, in particular for a small country which is unlikely to be able to influence the outcome of negotiations on a common external tariff. An FTA would in principle allow Armenia to set its own tariff rates and, by its nature, would incorporate an incentive for member countries to competitively reduce external tariffs so as to capture a larger share of the region's foreign trade.⁶ An FTA raises two central issues for Armenia -- i) to what extent would other republics be interested in participating in such an arrangement; and ii) to what extent can Armenia pursue a tariff policy which is independent of Russia's given that the latter accounts for 60% of Armenia's trade with the FSU? Assuming Armenia were to pitch its tariffs at a level lower than Russia's, trade between the two countries would be expected to equalize prices across the two countries. Given the relative sizes of the economies, the equalization would be likely to occur at Russia's price levels rather than Armenia's. This would mean that Armenian consumers would face higher prices despite the lower tariffs while the Government would have forgone potential tariff revenues in favor of transferring them to Armenian and Russian traders. The potential loss in Government revenues would be offset to the extent that Armenia's lower tariffs induce a diversion of Russian imports through Armenia.

2. Tariff rates.

35. Given that Armenia is a small, trade-dependent, enclave country, the medium term objective should be low and relatively uniform tariffs. In the short-term, however, in the face of urgent revenue requirements and the imperative of protecting the taxable base and preventing further falls in output, there may be a need for moderate tariffs - in the region of 20-25% - to protect

^{6/} If the interests of some countries are undermined severely enough, this might result in the breaking up of the FTA.

domestic/FSU industries from import competition in a transition period. This rate could be reduced every year in a pre-announced manner to reach the ultimate goal of low, uniform tariffs.

36. In the absence of such a policy designed to moderate the impact of reforms on domestic industry, the temptation would be extremely high to introduce selective quantitative restrictions on imports -- especially if the customs tariff is a common external tariff and cannot be easily modified.

3. Intra-FSU trade arrangements.

37. While it is important to maintain the traditional links with the republics of the former Soviet Union so as not to bring domestic production to a complete halt, it is counterproductive to do so through the current system of state orders. The question then arises as to what transitional measures are required before intra-FSU trade can be completely liberalized. Three approaches may be considered:

- i. reduce the share of state orders in enterprise production progressively down to zero -- e.g. starting 1993, 50% of 1992 levels and full liberalization in 1994. Under this scenario, enterprises would continue expanding their commercial ties and be responsible for negotiating prices and deliveries.
- ii. eliminate trade protocols for all but a few strategic commodities -- fuel and foodstuffs. Government to government agreements would continue to apply for these commodities, settled preferably in rubles (rubles being convertible by 1993).
- iii. replace the current mechanisms for FSU trade which represent export quotas, and provide protection to import-competing industries within the FSU zone, with a moderately high common external tariff which provides some protection to the zone industries and continued incentives to trade within the FSU thereby not disrupting links. The idea here is similar to introducing a compensatory tariff when quantitative restrictions on imports are eliminated. Analogously, the tariff "surcharge" would be temporary and reduced in accordance with a pre-announced schedule.

4. Indirect Tax System.

38. As currently designed, the valued added tax (VAT) and the excise tax are not neutral with respect to industrial incentives. This is for two reasons. First, as these taxes are not levied on imports from outside the FSU zone, domestic industry faces negative protection and intra-FSU trade is discouraged. Second, exemptions from the VAT create a preference for imports from non-FSU countries over domestic (or FSU) production. When final goods fall outside the VAT system, producers of these commodities are unable to deduct taxes paid on inputs and the price of the final good incorporates taxes paid in earlier stages of production. In contrast, competing imports arrive in the country at a completely tax-free price. The extension of the coverage of the VAT to all goods would increase prices to the consumer but would put imports and domestic production on an equal footing as the price of the good in each case would reflect the locally-imposed VAT.

39. An additional issue is the treatment of exports under the VAT. Currently exports are exempt, which does not allow for the reimbursement of taxes paid on previous stages of production. To the extent that exports are to other FSU countries, this does not pose a problem because FSU countries have agreed to apply the VAT (at the same rate) on the basis of the origin principle -- i.e. the VAT is collected in the producing countries; it is not levied on imports, and taxes paid on inputs are deductible even when paid in another FSU country. For intra-regional transactions, this is a perfectly consistent treatment which avoids cascading. The problem arises when Armenian goods (with a tax content) are exported to a country where they are also subject to indirect taxation and where they compete with domestically-produced goods which benefit from deductibility and third country goods which arrive at a tax-free price. As this would be the case in most non-FSU countries, current policy discriminates against exports outside the FSU zone. The recommended treatment of exports under the VAT is to apply a rate of zero which provides for reimbursement of previous taxes. The application of the VAT on the origin principle creates complications, however, of both a financial and institutional nature. First, Armenian exports which were produced with raw materials imported from another FSU country will have a tax content which was not collected by Armenia and zero rating of exports would result in a net outflow for the Armenian treasury. Second, institutional safeguards will be required to ensure that the rebate is being provided only for exports abroad and not also for exports to other FSU countries.

5. Institutional Considerations.

40. The above discussion reveals inconsistencies between trade and fiscal policies. Current trade policy exempts imports from FSU countries from customs duties while taxing other imports, thereby providing an incentive for intra-regional trade. Tax policy, on the other hand, exempts goods originating in non-FSU countries from indirect taxes while providing for the taxation of goods produced in FSU countries, thereby creating an incentive for trade outside the region. These inconsistencies in the incentive structure facing domestic enterprises exist in part for institutional reasons. The independent status accorded to the Customs Department and the Tax Inspectorate means that no single entity within the administration has the overview and authority required to ensure consistency between trade and tax policies. More generally, this arrangement leads to a divorce between revenue generation and expenditure policies and hampers the ability of the country to manage its public finances effectively and create a rational incentive environment for economic activity.

6. Export Incentives.

41. To the extent possible, the Government should ensure that trade and tax policies do not place Armenian exports at a competitive disadvantage on international markets. This implies not only elimination of export taxes and zero-rating under the VAT, but also a system of reimbursement of customs duties paid on inputs. Given that duty drawback or temporary admission schemes are relatively cumbersome to administer, the Government will have to decide whether the level of customs duties justifies their introduction.

42. Given the lack of familiarity of Armenian exporters with foreign business practices, market opportunities, quality requirements etc, there will be a need for the provision and dissemination of information which would facilitate their entry into the international marketplace. The issue here is whether the Government should assume any responsibility in promoting exports.

D. Recommendations

43. In the short term and to the extent that Armenia stays in the ruble zone, it is recommended that the country seek an arrangement for the establishment of a "common economic space." The nature of this common economic space (Customs Union or Free Trade Association) and its coverage (all FSU countries or some) remain to be negotiated. In these negotiations, Armenia should aim for elimination of all quantitative restrictions and a moderate level for a common external tariff (20-25%), which would provide a certain price advantage to Armenia on the FSU market vis-a-vis non-Union countries while not overly sheltering Armenian enterprises from the rigors of international competition or precluding the establishment of new links with external suppliers. Armenia should also seek an agreement from the start for the phased reduction of the initial tariffs to a low uniform rate in the medium term (5-10%). This would provide clear indications to enterprises about the duration of the transition period and about the nature of the trade regime they could expect to face at the end of this period. Additionally, it is recommended that all export licensing requirements be eliminated immediately.

44. The recommended tariff regime should provide sufficient price incentives for firms to trade within the FSU zone so as to permit elimination of the current system of non-tariff barriers through state orders. In view of their strategic importance, however, it may be necessary for the Government to continue to be involved in the import of fuel and foodstuffs in 1993. As already indicated, it would be advisable to settle any inter-Governmental trade protocols in currency rather than through barter so as to eliminate altogether the system of state orders. Financing of these imports should be considered under the Rehabilitation Loan for this reason. Even if Government agencies are responsible for the procurement of these goods, it should be possible to privatize their transport and distribution on the domestic market. In view of the reported preferences of some exporting countries (e.g. Turkmenistan), Armenia may have to accept barter trade to secure certain commodities in 1993. State orders would then be limited to products requested by these countries in exchange for fuel and foodstuffs. If this were to materialize, the Government should explore means of reducing the coverage of the state order system -- possibly by limiting bartered goods to a few commodities produced by enterprises which are to remain in the public portfolio -- so as not to jeopardize the privatization of a large segment of industrial activities.

45. Should diverging national interests undermine agreement on a Customs Union, it would be in Armenia's interest to seek the establishment of a Free Trade Arrangement. This would still guarantee preferential access to the FSU market for Armenian exporters, with the margin for this preference being determined by the national tariff rates of each individual importing country. As discussed above, assuming fluid and unrestricted product markets, Armenia's own external tariff under this scenario would be influenced to a large extent by Russia's.

46. In the event that no multilateral agreement on the establishment of a common economic space is possible or in the event of a collapse in the ruble zone, Armenia will have to pursue an independent tariff policy. This will aggravate disruption of traditional trade and lead to a precipitous decline in trade flows and production. Given the limited size of the domestic economy and the importance of FSU trade for domestic industry, such disruption might be sufficiently severe as to curtail the Government's ability to cushion the impact on enterprise output through a cautious national tariff policy. In this case, it might be preferable for Armenia to adopt from the outset the medium term objective of 5-10% and accelerate the economy's integration into international markets.

47. The indirect tax system should be revised so as to be neutral with respect to production incentives. To this end, imports from outside the FSU zone should be subject to the external tariff and exemptions from the VAT should be kept to a minimum. The mission understands that it is the authorities' intention to limit such exemptions to a few socially-sensitive products, comprising bread, milk, butter and babyfood.

48. The authorities should refrain from taxing exports. In addition, a system should be put in place to reimburse to exporters, at a minimum, that portion of input taxes collected by the Armenian treasury; if the budget permits, the rebate should be extended to all taxes paid on previous stages of production. In addition, in view of its administrative costs, it is recommended that a duty drawback scheme be introduced only if tariff rates exceed 10%. Regarding institutional support for export promotion, it might be preferable for private industry associations to assume this role; the absence of any expertise in the country (in either private or public sector) provides an opportunity to build up such capacity within the private sector in a manner which is likely to be more responsive to private sector needs.

49. Important for rationalizing the incentive framework and enhancing coherent policy-making will be the establishment of a single Ministry with sufficient overview and authority over tax and trade policies. In this context, it is recommended that a single economic ministry be responsible for customs and tax policy, even if responsibility for administration remains in separate agencies. This proposal is intended to provide the economic Ministry (whether a merged Ministry of Economy and Finance or the Ministry of Finance) with control over resource mobilization policies which critically influence spending decisions, thereby improving the Ministry's ability to execute its role in economic management. Irrespective of its institutional placement, it will be important to strengthen the Customs Department whose efficient operation will require development of appropriate organizational structures and procedures, establishment of information management systems and training of personnel.

ANNEX I

TRADE

AND

TRADE POLICY

STATISTICAL APPENDIX

Table A1(a). ARMENIA: Trade Flows
(in million current rubles)

	Total Exports			Foreign Export			Interrepublican Export		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
Total Exports	3813	3692	3523	86	93	95	3729	3399	3428
Industrial Export	3792	3661	3492	84	93	94	3708	3568	3398
Energy products	31	12	6				31	12	6
Ferrous metallurgy	20	20	14	0	1	0	20	19	16
Non-ferrous metallurgy	160	112	89	19	5	4	120	107	85
Chemical products	376	338	213	11	9	9	364	329	204
Machine building	857	861	828	13	34	56	844	827	772
Wood and paper products	20	18	9				20	18	9
Building material	45	38	44	3	0		42	38	44
Light industry	507	1427	1301	20	27	17	1457	1600	1483
Food Industry	590	641	412	16	16	8	576	627	404
Other industries	208	195	377	0	2	0	208	191	378
Agricultural exports	15	10	12		1	1	15	9	11
Other	6	22	19		0	0	6	22	19
	Total Imports			Foreign Imports			Interrepublican Import		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
Total Exports	5390	4898	4662	859	1036	1154	4532	3842	3508
Industrial Export	5174	4692	4361	813	945	1005	4361	3747	336
Energy products	456	435	304				456	435	304
Ferrous metallurgy	277	284	210	7	3	2	271	281	208
Non-ferrous metallurgy	150	140	113	0	49	25	150	91	87
Chemical products	386	326	370	73	74	75	317	312	293
Machine building	1002	1005	975	51	87	125	951	918	850
Wood and paper products	163	136	173	35	48	74	129	88	100
Building material	110	98	83	31	20	26	79	78	57
Light industry	1400	1108	1166	359	309	277	1041	799	889
Food Industry	1007	945	754	257	350	387	750 219	595	368
Other industries	219	156	213	0	6	15	167	150	199
Agricultural exports	212	200	290	45	111	148	3	89	142
Other	5	6	11	1		1		6	10
	Total Trade Balance			Foreign Trade Balance			Interrepublican Trade Balance		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
Total Exports	-1578	-1206	-1139	-775	-963	-1059	-803	-243	-80
Industrial Export	-1382	-1032	-869	-729	-853	-911	-653	-179	42
Energy products	-426	-423	-298	0	0	0	-426	-423	-298
Ferrous metallurgy	-257	-265	-196	-6	-3	-2	-251	-262	-194
Non-ferrous metallurgy	-10	-29	-24	19	-45	-22	-30	16	-2
Chemical products	-14	-48	-157	-62	-65	-66	48	17	-91
Machine building	-145	-144	-147	-39	-53	-69	-107	-91	-78
Wood and paper products	-144	-118	-165	-33	-48	-74	-109	-70	-91

Building material	-65	-60	-39	-28	-20	-26	-37	-40	-13
Light industry	107	320	333	-338	-232	-260	445	601	594
Food Industry	-417	-304	-342	-241	-336	-379	-176	32	37
Other industries	-11	38	163	-0	-3	-16	-11	41	178
Agricultural exports	-197	-190	-278	-45	-110	-147	-153	-80	-131
Other	1	16	8	-1	0	-0	33	16	9

Table A1(b). ARMENIA: Structure of Trade
(in percentages)

	Total Exports			Foreign Exports			Interrepublican Export		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
Total Exports	100	100	100	100	100	100	100	100	100
Industrial Export	99	99	99	100	99	99	99	99	99
Energy products	1	0	0	0	0	0	1	0	0
Ferrous metallurgy	1	1	0	0	1	0	1	1	0
Non-ferrous metallurgy	4	3	3	23	5	4	3	3	2
Chemical products	10	9	6	13	10	9	10	9	6
Machine building	22	23	24	15	37	59	23	23	23
Wood and paper products	1	0	0	0	0	0	1	1	0
Building material	1	1	1	4	0	0	1	1	1
Light industry	40	39	43	24	29	18	40	39	43
Food Industry	15	17	12	20	15	8	15	17	12
Other industries	5	5	11	0	3	0	6	5	11
Agricultural exports	0	0	0	0	1	1	0	0	0
Other	0	1	1	0	0	0	0	1	1

	Total Imports			Foreign Imports			Interrepublican Import		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
Total Exports	100	100	100	100	100	100	100	100	100
Industrial Export	96	96	94	95	90	87	96	98	96
Energy products	8	9	7	0	0	0	10	11	9
Ferrous metallurgy	5	6	5	1	0	0	6	7	6
Non-ferrous metallurgy	3	3	2	0	5	2	3	2	2
Chemical products	7	8	8	8	7	7	7	8	8
Machine building	19	21	21	6	8	11	21	24	24
Wood and paper products	3	3	4	4	5	6	3	2	3
Building material	2	2	2	4	2	2	2	2	2
Light industry	26	23	25	42	29	24	23	21	25
Food Industry	19	19	16	30	33	34	17	15	10
Other industries	4	3	5	0	1	1	5	4	6
Agricultural exports	4	4	6	5	10	13	6	2	4
Other	0	0	0	0	0	0	0	0	0

	Total Trade Balance			Foreign Trade Balance			Interrepublican Trade Balance		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
Total Exports	100	100	100	16	22	25	86	78	75
Industrial Export	100	100	100	16	20	23	84	80	77
Energy products	100	100	100	0	0	0	100	100	100
Ferrous metallurgy	100	100	100	2	1	1	98	99	99
Non-ferrous metallurgy	100	100	100	0	35	22	100	65	78
Chemical products	100	100	100	19	19	20	81	81	80
Machine building	100	100	100	5	9	13	95	91	87
Wood and paper products	100	100	100	21	35	42	79	65	58
Building material	100	100	100	26	20	31	72	80	69

Light industry	100	100	100	26	28	24	74	72	76
Food industry	100	100	100	26	37	51	74	63	49
Other industries	100	100	100	0	4	7	100	96	93
Agricultural exports	100	100	100	21	55	51	79	45	49
Other	100	100	100	30	0	5	70	100	95

Table A2. ARMENIA: Production and Trade in Intermediate Industrial Goods, 1991
(Unit prices in rubles)

	Total Production			Delivered in Armenia			Total Exports			Exports to FSU Countries			External Exports		
	Planned	Actual	% diff	Planned	Actual	% diff	Planned	Actual	% diff	Planned	Actual	% diff	Planned	Actual	% diff
1 Centrifugal pumps	100.0	100.0		13.6	18.5		86.4	81.5		86.0	81.0		0.4	0.5	
2 Tractor Cultivators	100.0	100.0		13.3	6.1		86.7	93.9		86.7	93.9		0.0	0.0	
3 Trailers	100.0	100.0		75.3	37.6		24.7	62.4		24.7	62.4		0.0	0.0	
4 Crushed roc., gravel	100.0	100.0		93.4	98.4		6.6	1.6		6.6	1.6		0.0	0.0	
5 Electrical machines, big	100.0	100.0		6.8	8.7		95.2	91.3		93.2	91.3		0.0	0.0	
6 El motors, axle height 63-355mm	100.0	100.0		1.0	2.4		99.0	97.6		99.0	97.6		0.0	0.0	
7 Chemical fibres	100.0	100.0		82.6	84.4		17.4	15.6		17.4	15.6		0.0	0.0	
8 Forging presses machines	100.0	100.0		8.5	8.5		91.5	91.5		91.5	91.5		0.0	0.0	
9 Engineering equipt for APC77	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
10 Eng. equipt for trade enterprise	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
11 Chemical equipment	100.0	100.0		82.6	84.4		17.4	15.6		17.4	15.6		0.0	0.0	
12 Sanitary ware ceramics	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
13 Computer equipment and spares	100.0	100.0		10.0	3.3		90.0	96.7		90.0	96.7		0.0	0.0	
14 Cutting tools	100.0	100.0		3.0	1.6		97.0	98.4		96.8	98.3		0.1	0.1	
15 Aluminum foil	100.0	100.0		73.9	73.6		26.1	26.4		26.1	26.4		0.0	0.0	
16 Engineering equipment for light industry	100.0	100.0		25.6	31.5		74.4	68.5		74.4	68.5		0.0	0.0	
17 Electrothermal equipment	100.0	100.0		1.0	1.0		99.0	99.0		99.0	99.0		0.0	0.0	
18 Lorries	100.0	100.0		5.7	5.7		94.3	94.3		94.3	94.3		0.0	0.0	
19 Power transformers, sub station units	100.0	100.0		2.2	5.2		97.8	94.8		91.8	94.1		5.9	0.7	
20 Chemical threads	100.0	100.0		39.1	18.1		60.9	81.9		36.1	56.0		24.9	25.9	
21 Power cables, flexible	100.0	100.0		1.9	2.2		98.1	97.8		98.1	97.8		0.0	0.0	
22 Metalworking machines	100.0	100.0		5.0	5.7		95.0	94.3		88.8	89.5		6.1	4.7	
23 Power cable, before 1 quarter	100.0	100.0		6.5	8.8		93.5	91.2		93.5	91.2		0.0	0.0	
24 Enameled wire, wire sheath	100.0	100.0		51.3	54.5		48.7	45.5		46.3	40.9		2.4	4.6	
25 Hose Wire	100.0	100.0		28.1	18.1		71.9	81.9		71.9	81.9		0.0	0.0	
26 Hydroapparatus	100.0	100.0		0.1	0.0		99.9	100.0		99.9	100.0		0.0	0.0	
27 Compressors	100.0	100.0		13.3	13.3		86.7	86.7		86.7	86.7		0.0	0.0	
28 Total engineering prod	100.0	100.0		4.5	2.4		95.5	97.6		95.5	97.1		0.1	0.5	
29 Small power electromotors	100.0	100.0		5.0	5.9		95.0	94.1		94.5	91.7		0.4	0.4	
30 Electronic engineering	100.0	100.0		4.3	4.5		95.7	95.5		95.7	95.5		0.0	0.0	
31 Electrical lamps	100.0	100.0		9.8	4.9		90.2	95.1		90.2	91.5		0.0	3.6	

	Total Production			Delivered in Armenia			Total Exports			Exports to FSU Countries			External Exports		
	Planned	Actual	% diff.	Planned	Actual	% diff.	Planned	Actual	% diff.	Planned	Actual	% diff.	Planned	Actual	% diff.
32 Rubber eng goods	100.0	100.0		3.9	4.2		96.1	95.8		96.1	95.8		0.0	0.0	
33 Equipment for polymer mat retreatment															
34 Radio frequency cables	100.0	100.0		37.6	39.4		62.4	60.6		62.4	60.6		0.0	0.0	
35 Gas flame equipment															
36 Medical equipment and spares	100.0	100.0		17.7	15.6		82.3	84.4		82.3	84.4		0.0	0.0	
37 Generators more than 100 kw	100.0	100.0		0.3	0.2		99.7	99.8		99.7	99.8		0.0	0.0	
38 Tyres for lorries	100.0	100.0		9.2	19.6		90.8	80.4		90.8	80.4		0.0	0.0	
39 Tyres for cars	100.0	100.0		6.8	9.6		93.2	90.4		98.2	90.4		0.0	0.0	
40 Tyres for agric machines	100.0	100.0		0.4	0.6		99.6	99.4		99.6	99.4		0.0	0.0	
41 Lumber	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
42 Wood particle boards	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
43 Plywood	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
44 Marketable cellulose	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
45 Paper	100.0	100.0		40.9	32.0		59.1	68.0		59.1	68.0		0.0	0.0	
46 Board, total	100.0	100.0		38.6	36.2		61.4	64.8		61.4	64.8		0.0	0.0	
47 Wood, Merchantable	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
48 Slate	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
49 Cement	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
50 Ceramic facing slabs	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
51 Ceramic floor plates	100.0	100.0		48.8	62.6		51.2	37.4		51.2	37.6		0.0	0.0	
52 Engineering glycerine	100.0	100.0		0.1	0.2		99.9	99.8		99.9	99.8		0.0	0.0	
53 Convectors	100.0	100.0		96.3	86.0		3.7	14.0		3.7	14.0		0.0	0.0	
54 Lacquer-painting material	100.0	100.0		34.3	64.5		65.7	35.5		65.7	35.5		0.0	0.0	
55 Woolen cloth	100.0	100.0		51.8	62.6		48.2	37.4		48.2	37.4		0.0	0.0	
56 Silk fabric	100.0	100.0		48.4	65.0		51.6	35.0		51.6	35.0		0.0	0.0	
57 Alcohol	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
58 Sunflower oil	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
59 Wine stock material	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
60 Wood containers	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
61 Board containers	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
62 Polymer containers	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
63 Synthetic rubber	100.0	100.0		2.4	11.5		97.6	88.5		97.6	88.5		0.0	0.0	

	Total Production			Delivered in Armenia			Total Exports			Exports to FSU Countries			External Exports		
	Planned	Actual	% diff	Planned	Actual	% diff	Planned	Actual	% diff	Planned	Actual	% diff	Planned	Actual	% diff
64 Caustic soda		100.0			100.0			0.0			0.0			0.0	
65 Aluminium rolled stock	100.0	100.0		14.1	15.5		85.9	84.5		85.9	84.5		0.0	0.0	
66 Linoleum	100.0	100.0		70.7	85.2		29.3	14.8		29.3	14.8		0.0	0.0	
67 Cotton fabrics	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
68 Cotton yarn	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
69 Chrome leather goods	100.0	100.0		100.0	100.0		0.0	0.0		0.0	0.0		0.0	0.0	
70 Wool yarn	100.0	100.0		56.7	57.4		43.3	42.6		43.3	42.6		0.0	0.0	
71 Equipment for glass industry	100.0	100.0		0.0	0.0		100.0	100.0		100.0	100.0		0.0	0.0	
72 Lightening wire	100.0	100.0		29.8	29.8		70.2	70.2		70.2	70.2		0.0	0.0	
73 Diamond tools	100.0	100.0		4.1	4.2		95.9	95.8		95.9	95.8		0.0	0.0	
74 Cryogenic equipment	100.0	100.0		1.5	1.7		98.5	98.3		98.5	98.3		0.0	0.0	
75 Organic acid,	100.0	100.0		6.7	9.1		93.3	90.9		98.3	90.9		0.0	0.0	
76 Not translated	100.0	100.0		78.1	75.5		21.9	24.5		21.9	24.5		0.0	0.0	
77 Not translated	100.0	100.0		25.4	31.8		74.6	68.2		74.5	68.2		0.0	0.0	
TOTAL	100.0	100.0		42.4	47.0		57.6	53.0		56.5	52.2		1.1	0.8	

Table A3. ARMENIA: Trade in Intermediate and Industrial Goods, 1991
Actual Exports to FSU Countries

		Estonia	Latvia	Lith	Kazak	Georgia	Moldova	Turme	Uzbek	Kyrgyz	Tadjik	Kazakh	Belarus	Russia	Ukraine	Total	
1	Centrifugal pumps	pieces	0.3	0.1	0.4	0.0	3.0	0.2	0.4	0.5	0.2	0.3	0.8	0.3	78.7	14.7	100.0
2	Tractor Cultivators	pieces	0.0	0.0	0.0	0.0	0.0	5.3	1.2	13.5	9.4	28.8	0.0	0.0	21.8	20.0	100.0
3	Trailers	pieces	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0
4	Crushed rock, gravel	000'km	0.0	0.0	0.0	0.0	49.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	50.3	0.0	100.0
5	Electrical Machines, big	pieces	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	96.9	2.3	100.0
6	El motors, axle height 63-35	pieces	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.7	8.3	100.0
7	Chemical fibres	tons	0.0	0.0	0.0	0.0	54.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.6	100.0
8	Forging press machines	pieces	3.3	1.3	0.3	0.0	1.1	0.6	0.1	3.5	0.6	0.7	2.6	3.9	63.2	18.9	100.0
9	Engineering equip. for APC??																
10	Engineering equip for trade enterprise																
11	Chemical Equip.																
12	Sanitary ware ceramics	pieces															
13	computer equip and spares		0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.8	0.4	97.2	1.0	100.0
14	Cutting tools		0.1	0.6	0.8	0.0	0.8	1.2	0.0	0.7	0.4	0.6	2.7	9.8	59.1	23.2	100.0
15	Aluminium foil	tons	0.1	0.1	0.1	0.0	1.7	0.7	0.0	4.0	0.1	0.4	0.6	86.3	6.9	100.0	
16	Engineering equip for light ind		0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	88.2	11.6	100.0	
17	Electrothermal equip		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.6	77.1	13.4	100.0	
18	Lorries	pieces	2.4	1.7	4.0	0.1	1.2	2.6	1.0	2.4	1.3	0.5	4.4	6.5	56.4	15.7	100.0
19	Power transformers sub station	000' kw	0.0	0.0	0.0	0.0	1.7	3.1	0.0	0.0	0.2	0.0	0.3	0.0	94.7	0.0	100.0
20	Chemical threads	tons	0.0	1.1	11.5	4.5	44.7	9.5	0.0	4.4	2.5	0.0	0.0	12.2	9.6	0.0	100.0
21	Power cables, flexible	000'km	0.1	0.0	0.5	0.0	0.8	1.1	0.1	0.6	0.0	0.1	0.0	0.1	76.4	20.2	100.0
22	Metalworking machines	pieces	1.2	1.1	1.9	0.0	10	0.1	0.2	2.7	0.2	0.2	3.5	4.0	67.0	21.8	100.0
23	Power cable ? before 1 quart	00'km	0.3	0.7	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	4.1	1.0	7.5	13.5	100.0
24	Enamelled wire, wire sub statn.	tons	0.0	6.6	0.1	0.0	21.0	0.0	0.0	1.4	0.0	0.0	5.3	40.5	25.0	100.0	
25	House wire	000'km	0.4	1.4	3.4	0.0	0.2	9.9	0.0	1.7	0.0	0.0	0.9	72.2	9.9	100.0	

		Estonia	Latvia	Lith	Kazab	Georgia	Moldova	Turme	Uzbek	Kyrgyz	Tadjik	Kazakh	Belarus	Russia	Ukraine	Total	
26	Hydroapparatus	000* rub	0.3	0.4	0.5	0.0	0.5	0.0	0.0	0.7	0.3	0.1	2.0	2.8	71.4	20.9	100.0
27	compressors	pieces	0.8	0.3	1.8	0.0	0.3	0.7	0.1	0.5	0.5	6.8	4.1	37.2	46.3	100.0	
28	Total engineering prod	000* rub	0.6	.05	1.2	0.0	1.2	1.8	0.4	2.5	0.9	0.5	1.6	5.3	71.2	12.4	100.0
29	Small power electromotors	pieces	0.0	0.0	6.3	0.0	0.0	0.0	0.0	1.3	0.0	0.0	2.5	5.9	53.5	30.6	100.0
30	Electronic engineering	000* rub	0.1	0.7	21.7	0.0	0.5	0.9	0.0	0.2	0.1	0.0	1.5	52.3	22.0	100.0	
31	Electrical lamps	000*rub	0.1	0.6	0.4	0.0	2.0	0.3	0.9	2.4	5.0	0.6	5.6	1.2	69.6	11.4	100.0
32	rubber eng goods	000* rub	0.3	1.7	1.5	0.0	0.9	0.9	0.0	2.2	1.1	0.5	5.4	2.2	59.9	23.3	100.0
33	Equip for polymer mat retro	000* rub															
34	Radio frequency cables	000*km	0.0	0.0	0.0	0.0	0.0	9.5	1.3	3.4	6.8	4.4	2.8	5.7	64.0	2.1	100.0
35	Gas flame equipment	000* rub															
36	Medical equip and spares	000* rub	0.0	0.1	0.0	0.0	0.0	0.0	0.3	1.3	0.7	0.0	1.2	0.5	95.1	1.0	100.0
37	Generators more than 10 kw	pieces	2.1	4.4	0.0	0.0	1.9	0.5	0.0	2.9	0.0	0.2	0.0	76.6	11.5	100.0	
38	Tyres for lorries	pieces	0.5	0.8	1.1	0.0	6.4	1.5	0.3	0.3	1.2	0.3	10.1	3.2	54.3	20.2	100.0
39	Tyres for cars	pieces	1.2	1.4	2.0	0.0	3.8	0.2	3.4	0.1	1.9	0.3	11.6	0.3	63.4	10.4	100.0
40	Tyres for agric machines	pieces	0.3	0.0	5.1	0.0	1.9	2.1	0.0	0.0	0.0	0.4	2.8	8.3	65.4	13.7	100.0
41	Lumber	cum															
42	Wood particle boards	cum															
43	Flywood	cum															
44	Marketable cellulose	tons	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
45	Paper	tons	0.0	0.0	0.0	0.0	6.7	0.0	2.9	0.0	0.0	5.2	0.0	0.0	27.8	57.5	100.0
46	Board, total	tons	6.8	0.0	0.0	0.0	9.9	0.0	0.0	0.0	0.0	11.0	0.0	0.0	72.3	0.0	100.0
47	Wood (merchantable)	cum															
48	Slate	agreed sq?															
49	Cement	tons															
50	Ceramic facing slabs	sq.m															
51	Ceramic floor pieces	sq.m	0.0	0.0	0.0	0.0	35.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.5	0.0	100.0

			Estonia	Latvia	Lith	Kerab	Georgia	Moldova	Turme	Uzbek	Kyrgyz	Tadjik	Kazakh	Belarus	Russia	Ukraine	Total
52	Engineering glycerine	ton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0
53	Connectors	000'kw	0.0	0.0	0.0	0.0	34.5	0.0	0.0	55.2	0.0	0.0	0.0	0.0	1.3	0.0	100.0
54	Lacquer painting material	ton	0.0	0.0	0.0	0.0	2.8	4.9	5.1	8.7	3.2	4.7	3.2	3.2	63.3	1.0	100.0
55	Woolen cloth	000'm	0.0	0.0	2.3	2.9	19.5	0.8	0.8	9.9	0.9	0.0	0.0	3.9	0.7	58.2	100.0
56	Silk fabric	000'm	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.9	0.0	8.9	0.0	0.0	64.0	100.0
57	Alcohol	000'dkl															
58	Sun flower	ton															
59	Wine stock material	000'dkl															
60	Wood containers	000' cum															
61	Board containers	000' cum															
62	Polymer containers	pieces															
63	Synthetic rubber	tons	0.2	0.7	1.2	0.1	0.9	0.6	0.2	2.9	0.2	0.3	6.5	4.5	57.8	23.8	100.0
64	Caustic soda	tons	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
65	Aluminium rolled stock	tons	0.5	0.0	5.7	0.0	2.3	0.3	0.0	4.9	0.4	0.0	0.9	1.4	70.6	13.1	100.0
66	Linoleum	sq.m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0
67	Cotton fabrics	000'm	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	38.4	0.0	14.2	42.0	100.0
68	Cotton yarn	ton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
69	Chrome leather goods	000'															
70	Wool yarn	ton	0.0	0.0	0.0	0.0	0.0	9.0	1.3	11.4	0.0	7.9	3.8	10.7	32.9	23.1	100.0
71	Equipment for glass industr	000' rub	4.4	0.0	0.0	0.0	0.0	0.0	0.0	12.4	3.9	0.0	12.8	10.4	51.8	4.3	100.0
72	Lightening wire	000'km	0.5	0.8	0.3	0.0	3.1	0.2	0.0	2.3	0.0	0.0	7.7	2.8	56.5	25.8	100.0
73	Diamond tools	000' carat	0.2	0.7	1.8	0.0	1.3	0.3	0.0	1.0	0.3	0.4	1.3	5.2	74.1	13.4	100.0
74	Cryogenic equipment	000' rub	3.0	1.6	2.1	0.0	0.3	0.6	0.0	1.0	0.5	0.6	3.8	3.0	52.9	30.6	100.0
75	Organic acid, monobased	tons	0.0	0.0	1.3	0.0	0.0	0.0	1.9	0.0	0.0	0.0	1.5	0.0	56.8	38.6	100.0
76	Not translated		0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.2	3.5	100.0
77	Not translated		3.9	0.9	1.3	0.0	3.2	0.5	0.0	1.9	1.3	1.5	5.4	4.0	58.2	17.8	100.0
TOTAL			0.6	1.1	2.3	0.2	3.2	1.1	0.3	2.2	0.9	0.5	3.5	3.4	60.2	20.6	100.0

Table A4. ARMENIA: Trade with FSU Countries, 1991 Plan
(in percentages)

Trade Partner	IMPORTS								EXPORTS							
	Interm Goods				Consumer Goods				Interm Goods				Consumer Goods			
	TOTAL	Energy & fuel	Ind. Prod.	Techother Sectors	Total	Light	Food	Manuf	Total	Energy & fuel	Ind. Prod.	Techother Sectors	Total	Light	Food	Manuf
Russia	59.9	57.7	64.3	85.5	45.0	54.9	34.5	41.9	49.9		37.0	9.5	53.5	52.7	80.0	41.2
Ukraine	19.0	0.0	16.4	0.0	24.9	4.7	49.8	25.2	18.6		30.4	0.0	15.5	14.7	1.8	24.9
Belarus	6.0	0.0	5.2	2.8	7.7	11.2	4.3	5.7	2.6		5.9	36.1	1.5	0.6	2.7	3.2
Moldova	3.0	0.0	1.1	0.2	4.6	4.6	4.9	4.0	1.1		1.2	27.0	0.9	0.8	0.0	1.8
Lithuania	1.2	0.0	1.2	0.0	1.5	2.8	0.0	1.5	0.9		2.1	0.0	0.6	0.1	1.5	1.2
Latvia	1.5	0.0	0.4	0.0	2.4	4.0	0.0	3.0	1.1		1.4	0.0	1.0	0.4	1.0	2.5
Estonia	0.8	0.0	0.1	0.0	1.4	2.4	0.0	1.8	0.8		1.2	0.0	0.7	0.6	1.2	0.5
Tadjikistan	0.9	0.0	1.2	0.0	1.0	1.7	0.0	1.0	1.6		0.6	0.0	1.8	2.1	0.6	1.8
Kyrgyzstan	0.9	0.0	0.5	0.5	1.3	2.7	0.0	0.2	1.9		0.6	0.0	2.2	3.0	0.5	1.1
Uzbekistan	3.2	0.0	3.0	0.0	4.1	4.8	0.2	9.8	4.9		5.1	0.0	4.9	4.2	0.6	9.2
Kazakhstan	2.4	0.0	3.3	0.0	2.6	1.6	4.9	0.6	9.8		7.6	0.0	10.4	13.6	2.4	7.0
Turkmenistan	5.4	42.2	0.2	10.6	0.0	0.0	0.0	0.1	3.7		1.1	1.6	4.4	4.7	6.2	2.7
Georgia	2.9	0.1	2.8	0.5	3.5	4.5	1.5	5.1	3.2		5.7	25.8	2.4	2.5	1.4	2.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.	100.0		100.1	100.1	100.1	100.1	100.0	100.0

ANNEX II

THE FINANCIAL SYSTEM IN ARMENIA

A. Overview of the Financial Sector

50. The Armenian financial system includes the National Bank of Armenia, five banks formed from the former Soviet specialized banks, 45 joint-stock, commercial, and cooperative banks started in Armenia since 1988, and five branches of new Russian banks operating in Armenia.⁷ There is also a state insurance company and several private insurance companies. The system is dominated by the five state banks, but the market share of the new commercial banks has expanded rapidly to almost 20 percent of enterprise credit and deposits by April 1992.

51. The Armenian financial system has evolved since independence within the framework set by the 1988 Soviet banking reforms. Those reforms were designed to move from highly centralized credit allocation to a decentralized public sector banking system with a small cooperative and private sector fringe. The legal and regulatory framework ended the monopoly of the large banks with the entry of other public sector banks and gave more management autonomy to state banks. Direct government control over financial markets was further reduced after Armenian independence. However ending the monopoly of the large banks and loosening direct centralized state control of financial institutions and credit allocation was only the first step towards creating a base for financial sector development. The inherited framework is suited to a public sector banking system in a primarily public economy with accounting standards and regulations designed for control of output rather than financial and management information. During the transition, the financial institutions are still largely controlled by the public sector and burdened with very weak inherited portfolios in a declining economy, credit is allocated primarily to established public enterprises, new shareholders of the banks, and related enterprises, and public confidence in the banking system has been destroyed by the unreconciled obligations left with the demise of the Soviet Union.

52. The financial sector reform agenda must be to develop a legal, regulatory, and institutional framework capable of supporting a commercial banking system with separation of banks and their client enterprises, clear incentives and discipline of financial institutions, a strong role for the central bank in monitoring the safety of the financial institutions, and a strategy to address ownership and oversight of both the large and small banks and the allocation of credit. The government has started to work on the legal, regulatory, information, and institutional infrastructure for a decentralized market banking system. A new Banking Law was expected in late 1992. It will take several years to address the medium-term objectives on the reform agenda: e.g., building a banking sector with incentives to encourage financial savings, expanding financial services, restructuring the banks and reducing public ownership of financial institutions.

53. It will be a challenging task to move to a market financial system with all financial institutions operating under new rules, roles, and procedures. This transformation will be doubly difficult because it must be undertaken within an economic environment where a significant amount of output and employment is in firms incurring losses under the blockade, economic and financial uncertainty is compounded by shifting relative prices, the loss of monopoly position, new competition, and the collapse

^{7/} Between June and Sept. 1992, this list was expanded with three new joint-stock commercial banks, six new branches of Russian banks, and an Iranian bank registered in June 1992.

of the trade regime. It will be several years before firms are operating with less distorted incentives, market signals become more reliable, and privatization can shift the majority of companies out of the public sector. A difficult challenge during the economic transition will be balancing the objective of subjecting the firms to financial discipline so as to speed restructuring and resource reallocation with the desire to minimize declines in employment and output. It is not clear what role the banks will play in financing high risk enterprises during the transition. It is desirable to minimize funding of operating losses in the enterprise sector from the banks because this represents a future claim on the budget. However there will undoubtedly be trade-offs on the difficult policy questions of funding high risk ventures and loss-making firms awaiting privatization during the transition as well as critical economic needs like importing wheat and oil during the blockade and the desire of the government to move to a commercial banking system.

54. Armenia has remained in the ruble zone since Independence. This has provided a framework for monetary and exchange rate policy but there have been significant policy and operating problems in the zone, including the question of distribution of seignorage, periodic shortages of cash, the inefficiency of clearing inter-state transactions, the system of correspondent accounts and the size and variability of the float. There is considerable uncertainty about the future viability or form of the ruble zone.

55. During 1991 and the first part of 1992, the ruble zone arrangement limited monetary discretion, with inflation in Armenia not differing much from the trends in the larger Republics. However, deviations in inflation from the larger Republics are showing more variation over time with the blockade, lower wage increases, and the growing budget deficit in Armenia. In recent months the discretionary monetary policy instruments of the National Bank of Armenia have diverged from those of neighboring Republics. Interest rates are substantially lower: the nominal rate on advances from the National Bank of Armenia is 60%, extremely negative in real terms. The Government intends to move rates to Russian levels, but argues that this must be done gradually as every increase in the rate at this time increases the budget deficit since most new funding is going directly or indirectly to the Government. As the budget situation has become more precarious and the blockade tightens, the banking system is financing the government both directly and indirectly. The government has shifted from net creditor to net debtor to the banking system. By the fall of 1992, the state and commercial banks are coming under increasing pressure to finance priority economic activities such as importing wheat and fuel. There is very little credit available to support the new private sector or the state enterprises that could profitably increase production. Since the blockade worsened, the Government has been directing credit to activities necessary for survival (hospitals, bakeries) and key industries with export orders.

B. Financial Institutions

The National Bank of Armenia

56. Gosbank-Armenia, a former branch of Gosbank-Moscow, became the National Bank of Armenia and will take over the functions of a central bank.⁸ It appears that the NBA has made progress

^{8/} The accounts of the National Bank as well as the monetary survey are included in the CEM Appendix Tables.

in moving most commercial bank functions out of the central bank⁹ and establishing some of the functions of the central bank. The new operations of the central bank need to be strengthened, including establishing the regulatory framework and supervising the commercial banks, tightening the licensing standards for commercial banks, improving the clearing and payments system, and establishing foreign operations. Also, even though the independent role of the NBA in monetary policy is restricted in the ruble zone arrangement, the central bank needs far more capacity to assemble basic economic, balance of payments, monetary, and financial information. The National Bank of Armenia has been using technical assistance from the IMF to work on many of these operational concerns and will need continuing support.

The State Banks

57. Five specialized banks were created as part of the Soviet reforms in 1988. The former state banks are now Republic banks known as the Agricultural Bank of Armenia (Agroprombank-Armenia), the State Commercial Bank of Armenia (ACB), the Bank for Industry and Construction (Promstroibank-Armenia), the State Savings Bank (Sperbank-Armenia) and the Export-Import Bank (Vneshekonombank or VEB-Armenia). The three state lending banks, Promstroibank, Agroprombank, and ACB, have converted to joint-stock banks and are expanding services to become universal banks. The status of the Savings Bank and V.E.B. are uncertain because of unreconciled accounts left in the break-up of the Soviet banking system. The state banks are poorly capitalized in relation to the size of operations and the inherited loan portfolios are expected to deteriorate with changes in the economy and interest rate increases. These banks are now privatized in the sense that they have sold shares to public enterprises, Ministries, and the emerging private sector, but a majority of shares are held by public institutions. Many of the new shareholders are borrowing from the banks, setting up an unhealthy system of connected lending.

58. The Bank for Industry and Construction (Promstroibank-Armenia) was incorporated as a joint-stock company on November 30, 1991, and took over the assets of liabilities of Promstroibank of the USSR in Armenian territory. As of March 1992, Promstroibank had capital of R 260 million, domestic credit of R 3.0 billion, deposits of R 1.14 billion and loans from the National Bank of Armenia of R 1.04 billion. The Bank for Industry and Construction accounts for about 25% of the credit in the system, including small banks and about 33% of the lending from state banks. Of the 30,000 clients, about 20,000 are public enterprises getting 90% of the credit and 10,000 are private enterprises getting 10% of the credit. The client base included heavy and military industries that are unlikely to be viable in the future. The bank has already cut off credit to 10 to 15 large enterprises and has discontinued lending to 15 - 20% of the medium clients.

59. The Agricultural Bank of Armenia (Agroprombank-Armenia) was incorporated on Nov. 30, 1991. As of March 1992, Agroprombank had capital of R 145 million, domestic credit of R 2.82 billion, deposits of R 1.19 billion and loans from the National Bank of Armenia of R 1.52 billion. Most of the capital has been paid by enterprises and cooperatives, including clients of the bank. The bank has 1,122 shareholders of which 700 are enterprises. The lending portfolio is weighted heavily towards the food and agricultural sector. The Agricultural Bank is reportedly in weak condition because of old long-

^{9/} Although this progress is being eroded by NBA lending to commercial banks that are funding government activities.

term loans covering state activities, accounts to cover price subsidies, land lending to weak parastatals to cover salaries.

60. As of March 1992, the Armenia State Commercial Bank had capital of R 100 million, deposits of R 1.134 billion, loans from the National Bank of Armenia of R 0.582 billion, domestic credit of R 1.11 billion with loans to enterprises of R 1.8 billion. The State Commercial Bank lends to medium and small light industries. About 70% of loans are to public enterprises, 30% to joint-stock or private companies, and less than 1% is to households. ACB has significant government deposits and handles most cash transactions done by businesses. This leaves the bank vulnerable to the drawdown of local government deposits as the local governments budget situation becomes tighter.

61. The State Savings Bank was left insolvent and illiquid by the break-up of the Soviet system which funneled household savings through Sperbank-Moscow into the Soviet budget. The Armenian Savings Bank has R 8.5 billion in household obligations not backed by assets in Armenia. These obligations were increased to R 11 billion in the price reforms in 1991 with the increase to remain frozen until 1994. While inflation is eroding the real value of the household deposits, the obligation is still significant in relation to the size of economic activity and therefore government ability to meet the obligation. Household deposits of R 11 billion through the Savings Bank can be compared with estimated GDP for 1991 of R 15.9 billion. The government has not decided now to meet the liabilities of the Savings Bank. Withdrawals have been limited to 500 rubles but recently there has not been enough cash to allow even small withdrawals. The credit returned from Moscow since January 1991 and other funds under Savings Bank control are managed separately from the blocked deposits and the Savings Bank has R 1.3 billion in one-year loans to 15 commercial banks.¹⁰

62. The trade bank, Vneshekonombank, was closed on December 17, 1991. In March 1992 the assets and liabilities of Vneshekonombank-Armenia were transferred to the Export-Import Bank (V.E.B.-Armenia). The status of V.E.B.-Armenia has not been resolved since the bank was left with uncovered liabilities for assets transferred to Moscow. All accounts in the Export-Import Bank are frozen. This includes claims of the Armenian Government of 6 million convertible rubles and claims of enterprises of 47 million convertible rubles (at US \$ 1 = rub 1.8). The Export-Import Bank of Armenia is selling shares to enterprises and as of May 1992 had raised R 62 million in capital from 45 shareholders with R 20 million from 10 joint-ventures, R 20 million from 12 state enterprises, and R 22 million from 23 private companies.

63. Domestic credit from the five former state banks was R 20.3 billion as of December 1, 1992¹¹ of which R 22.8 billion was claims on enterprises and R 0.15 billion in loans to households and self-employed individuals. The state banks had R 6.4 billion in enterprise deposits and R 0.07 billion in household deposits, in addition to R 3.9 billion in resident foreign currency deposits. The deposit money banks had R 13.8 billion in loans from banks, including the outstanding advances from the head offices of U.S.S.R. banks that were taken over by Gosbank-Armenia and appear as lending from the NBA.

^{10/} By Sept. 1992 the Savings Bank had additional funds returned from Moscow and was lending 2.0 billions in one-year unsecured loans to 40 state and commercial banks. Lending was at 30%, the same rate as advances from NBA.

^{11/} These figures are taken from the first attempt to calculate western monetary statistics and will be subject to corrections and revisions.

64. The state banks have the advantage of a branch network but with the exception of the Savings Bank, branch coverage is sparse in many areas outside of Yerevan.

Bank Branches			
	YEREVAN	REGIONS	TOTAL
Agricultural	3	37	40
Ind. & Const.	7	25	32
State Comm. Bank	8	9	17
Saving	9	39	48

NB: The Savings Bank has a network of 720 collection offices associated with the 48 branches. There are 80 collection offices in Yerevan and 640 collection offices in the regions.

65. The state banks inherited very weak financial positions with uncovered assets and liabilities from the dissolution of the Soviet Union, long-term loans issued to cover state activities like schools and hospitals, and continuing pressure on the banks to lend for state priorities and to enterprises fulfilling state trade orders. The quality of the portfolio will decline further as enterprises, especially inefficient, heavy and military industries, adjust to the deteriorating economic situation and to radically changing economic incentives. There will be further changes as the clients of the banks are privatized, the banks will be forced to write-off loans, and the banks churn the client base. The banks are already severely undercapitalized in relation to the size of operations and need to be restructured. In addition the government needs to establish operating guidelines for the state banks to control losses mounting in the system with pressure to lend for critical activities during the economic crisis.

The New Commercial Banks

66. In addition to the five state banks, 45 new banks have been licensed in Armenia and there are five Russian banks with branches in Armenia.¹² Some of the new Armenian banks have also opened branches in Moscow. Ownership information on the new banks is sketchy but the following summary is given as indicative, subject to later correction. The National Bank estimates that approximately 65% of the shares in the new commercial banks are owned by state enterprises or Ministries. Most banks also have some small private shareholders. There are four publicly owned new banks, at least eight mixed banks with shares held by Ministries, 13 mixed banks partially owned by state enterprises, eight small cooperative banks, and about 12 banks listed as predominately private, although there are no completely private banks.

	Licensed	Operating
Mixed banks (old state banks)	5	5

^{12/} By September 1992 the number of new commercial joint-stock banks had increased to 48 and there were 11 branches of Russian banks operating in Armenia.

Branches of new Russian banks	5	5
New Banks Licensed in Armenia		
Public	4	2
Mixed Banks (ministry shareholders)	8	8
Mixed (SOE shareholders)	13	8
Private	12	7
Cooperatives	8	8
TOTAL	55	44

67. Most new banks are tied to groups of enterprises directly or indirectly providing payment clearing services and loans to owners and depositors. The lack of collateral and banking laws, as well as very loose restrictions on loan concentration and lending to owners, means that many banks are dealing primarily with related companies. The links between owner-enterprises and banks means that there is no independent evaluation in credit allocation, increasing risk to the system.

68. There are significant short-term incentives in the system for groups of enterprises to get banking licenses as a side activity to other commercial ventures. First, the new banks have access to enterprise deposits and loans from other banks, the Savings Bank, and the National Bank of Armenia at highly negative real interest rates.¹³ The funds are used to finance related enterprises. Second, there are still logistic problems with the new payment clearing system so groups of companies establish banks to provide internal clearing services. Third, the push for new banks led to loose licensing requirements and lax enforcement of the paid-up capital standards. Licensing has been almost automatic and many banks are operating with far less than 10 million rubles required capital.¹⁴ Many of the small financial institutions are very weak and will not survive as interest rates rise, prudential standards are enforced and macroeconomic distortions are reduced.

69. Partial financial information is available for 36 of the small banks as of April 1, 1992. Those banks had loans outstanding of 2.2 billion rubles, R 0.7 billion in sight deposits, R 0.3 billion in enterprise time deposits, R 0.01 billion in household deposits and R 1.3 billion in loans from the Savings Bank and other banks, of which R 0.3 billion was from the National Bank of Armenia.^{15 16}

^{13/} The NBA raised the lending rate to the commercial banks from 20% to 22% in May 1992 and to 30% in July 1992. The rate on loans from Sperbank was raised from 10% in 1991 to 20%, 22% and then 30% in step with NBA in 1992. Inflation in 1991 was estimated at 174% and the annualized rate for the first half of 1992 was over 600%.

^{14/} In April 1992 there were at least 14 commercial banks operating with less than 10 million in paid-up capital and all eight cooperatives banks have less than R 10 million in capital. Six of the eight have less than R 5 million in capital. There are banks operating in the system with capital as low as 500,000 rubles.

^{15/} As of April 1, 1992, the NBA had loans of R 3.3 billion to the state banks, including the outstanding balances taken over from the head offices of the former Soviet banks. Therefore the new commercial banks had about 8% of the funds outstanding from the NBA and a much higher percentage of new lending.

70. The market share of the new commercial banks has risen to 18 percent of all credit, including 19 percent of loans to enterprises, and 18 percent of enterprise deposits by April 1, 1992. The new commercial banks have about 10.4 percent of total assets, and the share would rise to 17 percent if V.E.B. and the Savings Bank were removed.¹⁷ Loans to households and household deposits are very small in all commercial and state banks, except the household deposits in the Savings Bank.

71. Some of the new commercial banks have already had liquidity problems, others are insolvent and several will not be able to meet the minimum capital requirements. NBA on-and off-site inspection capacity is very weak and the extent of the capital, credit and liquidity problems of the banks is not known yet. The National Bank estimates that only 10-15 of the small banks are potentially viable. In September 1992, the minimum capital requirement was raised to 40 million with banks given one year to meet the new higher standard. The small banks were urged to arrange mergers with stronger partners.

C. Current Performance of the System

Declining Real Credit

72. The financial system is declining in real terms and declining in relation to GDP. Real credit to enterprises fell sharply; for example, the ratio of enterprise deposits to GDP declined from 29% at end-1991 to about 8% by end-June 1992. While credit to enterprises almost doubled in nominal terms during 1991, inflation was estimated at 100.3%. In the first half of 1992 credit to enterprises rose 40% in nominal terms but inflation was estimated at over 600% while recorded GDP in real terms was about half of the recorded GDP by mid-1991. Real Some of the decline is due to the disruption in the traditional role of the banks. Credit to state enterprises is no longer automatic and many enterprises are spending deposits to pay wages. There are almost no new household deposits in the system and enterprise deposits are not growing. Some of the decline is due to the fall in output and economic activity and strongly negative real interest rates. Also enterprises were substituting inter-enterprise for bank credit.¹⁸ The decline is expected to continue. Banking sector liabilities of enterprises and households from the five state banks were 72% of estimated GDP at the end of 1991, but were estimated to be less than 10% of GDP by the end of 1992.

73. There was some easing in monetary conditions in August 1992 when Armenia followed Russia with a major infusion of credit in an attempt to clear inter-enterprise arrears. The NBA issued 6.2 billion in credit through the state and commercial banks to clear arrears. As a result of this, by end-September total arrears in the enterprise sector were reduced from a peak of R 20.6 billion in July 1992 to R 13.1 billion.

^{16/} Some of the new Armenian banks, as well as the state bank ACB, have borrowed from Russian banks, with estimates as high as R 800 million, although new borrowing from Russian banks is less common now.

^{17/} Total assets may be a misleading indicator since the balance sheets of the former Soviet banks have not been purged of unreconciled accounts.

^{18/} There are no reliable estimates of the size of inter-enterprise credit. The only indicator available is that the arrears in inter-enterprise credit for Armenian firms were R 7 billion by August 1992.

Credit Allocation

74. Under high inflation, lending to enterprises from all banks is very short-term to finance trade and working capital. Banks favor clients that can repay in cash. During the steep economic downturn, the banks have been given considerable latitude to cut off unviable enterprises. Lending for salaries or child allowances or operating costs for unviable firms seems to have been limited. Many enterprises are not operating because of the shortage of imported inputs, others were forced to cover salaries for the reduced scale of operations from deposits, while yet others are not paying wages and the enterprises are building up inter-enterprise arrears.

75. By fall 1992, the economic situation had become so difficult that most new lending was being directed to state priorities, e.g. importing energy and fuel. The lending portfolio of the state banks is becoming more concentrated. With the continuing shut-down of firms, fewer enterprises are getting credit but the average size of loan is increasing. The only credit available for new or private enterprises are the small amounts allocated to enterprises that bought shares in the banks.

76. Most banks are reporting high profits, primarily fee income for clearing and payment services. These profits are being distributed as dividends since there are no requirements that the banks provision for expected problems in their portfolios. Repayment rates were fairly good in the first quarter of 1992 with inflation eroding the value of outstanding debt, very negative real interest rates, and enterprises accumulating inter-enterprise arrears to finance trade. Repayment performance will deteriorate as relative prices adjust, interest rates rise, inter-enterprise credit is reduced, and the economy moves deeper into restructuring. This trend was starting in the second quarter of 1992. The percent of enterprise loans overdue rose from 4.6% at the end of 1991 to 6.3% by March 1992, and to 12.1% by June 1992. These repayment problems are not just found in SOEs. The new small private sector is also starting to show repayment problems.

Interest Rates

77. Interest rates in the economy are strongly negative in real terms. The nominal adjustments in late 1991 and early 1992 did not cover inflation. The structure of interest rates in Armenia is largely based on the lending rate from the NBA to commercial banks. The National Bank of Armenia lends to banks at 30%. The commercial banks are restricted to a four percent spread when on-lending these funds. This is over one-third of the funds in the banking system. All other interest rates in the system are legally decontrolled but have not been adjusted to keep pace with rapid inflation. Deposit rates are extremely low in nominal terms, lending rates are negative in real terms, and spreads are large. A small sample taken in May 1992 found that the lending rate from the state banks was lower than from the private banks. The Bank for Industry and Construction was lending to state enterprises at 3-4% per month and 5-8% for private enterprises. ACB was lending at 3% per month. A small sample of the private banks found rates as low as 2.5 - 5% per month but monthly rates of 6-7% were more common. By September 1992 the lending rates had increased in all banks and ranged from 5% to over 10% per month.

78. During the first quarter of 1992 the deposit rate at the Savings Bank was increased from a range of 2 - 7% to 4 - 11%. Most sight deposits at ACB were not paid interest, the annual deposit rate for one year deposits was 20%, and 35% per year for deposits of over three years. There is wide

variation in the deposit rates paid by small banks. Some were funded primarily by inter-bank and NBA loans and paying only 3-5% per year on deposits. Another small bank, trying to develop a deposit base, was paying 25-35% per year for deposits. However, public confidence in the small banks is low, and those banks have not been actively competing for deposits with higher interest rates.

79. Spreads in the system are very high. The spread for on-lending NBA funds is limited to 4%, but on other sources of funds it was common to find spreads of 30-50%. Part of the spread covers reserve requirements of 10%, taxes of 45% on profits, and in the state banks, the implicit subsidy on non-performing or long-term loans at very low interest rates. Another factor is the rising dividend needed to attract new capital. One small bank reported that after paying taxes of 45%, expenses were 1.5%, the remainder of profits were paid in dividends. Most banks were paying dividends of 17 - 22% in mid-1992, and the dividends had increased to 40-45% by Sept. 1992. One small private bank reported a dividend of 200%.

80. In the short run the effect of negative real interest rates has been to erode the real value of the stock of debt in the economy and therefore the size of the banks. Higher nominal and interest rates are necessary to reduce the severe distortions caused in resource allocation and the shrinking financial system and the present incentives for outflow of funds attracted by the higher interest rates in Russia and some of the surrounding republics. The desired strategy of increasing real interest rates by cutting inflation will not be sufficient in the current environment and nominal adjustments in the NBA lending rate are needed in Armenia to complement anti-inflation policies. Higher interest rates will provide more appropriate price signals to the economy, but will also lead to more repayment problems and hence large future charges on the Government budget. Greater discipline on lending decisions and better credit evaluation are therefore needed before interest rates are raised to any substantial degree.

Operating Problems

81. The process of establishing operating procedures, policies, and systems for the financial sector of the independent Republic of Armenia is underway. Many functions formerly performed through Moscow are just being introduced to the banks and bankers in Armenia. Several operating problems have been especially troublesome, such as establishing a system of inter-bank clearing and settlement of payments within Armenia and with other parts of the FSU.

82. Foreign operations for the central and commercial banks including correspondent banking and trade finance are also unfamiliar. The economy of Armenia is very dependent on foreign trade, both with other parts of the FSU and to a growing extent outside the FSU. The banking system is just starting to develop the technical skills and banking relationships needed to support foreign trade. Very few people in the financial institutions have experience with trade finance or foreign currency operations. This is a priority issue for training and technical assistance.

D. The Reform Agenda

83. Some of the most important issues on the reform agenda for the financial sector are establishing a legal and regulatory framework for a stable commercial banking system, dealing with the inherited institutions, the stock of bad loans, and unfunded obligations to households, fostering the development of independent commercial financial practices and institutions, and rebuilding public

confidence in the banking system. In addition to these financial sector reforms, the banks will face transition issues on lending into a high-risk unstable economic environment and the radical shifts in economic relationships as enterprises are privatized.¹⁹ *The speed and sequencing of the financial sector reform will have to be tailored to the macroeconomic and external political situation and the privatization program.* Three scenarios follow.

84. If the political and economic situation continues to deteriorate and centralized government control over the economy is reestablished, most financial sector reforms will have to be postponed. A 'commercial' banking system will not develop in a centrally controlled economy. Banks that are funding enterprise losses or social objectives or are subject to state intervention on credit allocation can not meet new prudential requirements, undertake extensive restructuring, or operate on commercial principles. With further economic deterioration, most new banks will fail, compounding the already difficult task of rebuilding confidence in the financial system.

85. Under an intermediate scenario, if the economy has weak economic performance, periodic trade disruptions, and moderate reform efforts, the government is going to have to continue to play a major role in 'managing' the financial sector. A healthy growing private sector is needed to reduce state and public enterprise ownership of the banks. Bank and enterprise restructuring and privatization programs must be done in tandem. If a large portion of the economy remains under state ownership and management, the state will also have to cover operating losses of public enterprises. While most of the operating losses should be covered in the budget, there will be considerable pressure on the banks to make very high risk loans to weak state enterprises. Until the enterprises are commercialized or privatized, response to price and financial signals may be perverse. For example, the response to higher interest rates may be for the parastatals to demand more credit to cover loan servicing obligations. The financial conditions in the banks will deteriorate.

86. Under a more optimistic scenario, if the macroeconomic situation can be stabilized and privatization moves forward, then complementary measures can be taken to move towards a commercial banking system. In this situation, building financial skills and expanding financial services, raising real interest rates to improve resource allocation, restructuring the state banks in preparation for eventual privatization, and developing instruments of monetary and fiscal control will be the relevant objectives. By closely supervising the banks and enforcing prudential regulations, the government can help rebuild confidence in the depository institutions. Under this more optimistic scenario, significant progress can be made in the next five years to privatize public enterprises, develop markets, build the skills and incentives needed for commercial banking and reduce public ownership of the financial institutions.

The Legal, Regulatory and Supervisory Framework

87. A new Banking Law is to go to Parliament in the second half of 1992 and will need to be followed quickly by the regulations and directives set by the National Bank of Armenia to make the law operational. Awaiting the new Banking Law, financial sector policies have been handled through Presidential Decrees or directives from the National Bank. There is a Banking Board, with

^{19/} The details of the Armenian privatization program are still being worked out. However, it seems likely that many new owners will not assume responsibility of the old liabilities to banks. This means that bank restructuring and downsizing will have to complement enterprise privatization.

representatives from the Supreme Council, the Ministry of Finance, the Ministry of the Economy, the National Bank, one representative from a commercial bank, representatives from the five state banks, etc. that meets weekly to advise on financial and banking policy. There are problems inherent in having representatives of the state and commercial banks on the Banking Board and the Government should consider a Monetary Board arrangement independent of the banks.

88. Armenia has moved away from the system of specialized banks. From April 1992, all banks in Armenia are to be comprehensive banks, i.e. all banks can operate across sectors and take household deposits. In addition to lending and deposit taking, banking licenses cover leasing services. Banks can be brokers, but not dealers, to sell stocks and can sell insurance. Banks can't invest in companies and banks are not supposed to undertake commercial activities. There is a separate licensing requirement for foreign operations. There are no provisions for other types of financial institutions.

89. The NBA has been licensing banks to engage in foreign operations and a May 1992 law has authorized foreign exchange accounts for residents. About 40% of the banks are licensed to undertake foreign exchange transactions. The prudential standards to restrict foreign exchange exposure are not in place yet and it may be premature to allow the inexperienced banks to undertake foreign exchange transactions. Once the prudential standards are in place, the NBA should restrict licenses for foreign operations to the banks with skill to manage these operations safely. Also the policy of permitting foreign currency denominated deposits in the banking system should be reexamined. The question of establishing a national currency and attempts to stabilize the ruble will leave any bank with foreign currency deposits open to considerable risk unless properly managed.

90. Moving from a centralized directed banking system to a decentralized system makes bank inspection and prudential regulation much more important and the National Bank of Armenia will have to strengthen the capacity to implement and enforce new banking standards. The inspection department in the NBA was established in 1990, has a staff of only six inspectors and one director and is just beginning to establish on and off-site inspection procedures. With present capacity, the inspection department of the NBA cannot examine more than ten banks per year. Since there are now about 48 new commercial banks and five state banks, each bank can be inspected at most every five years. This falls far short of the goal of inspecting each commercial bank every year. The NBA should increase the number of inspectors and restrict licensing new banks until there is a realistic balance between the number of financial institutions and the number of inspectors. The National Bank should not license more banks than it can monitor and should not license more small weak financial institutions without banking skills. It is going to take several years of intensive supervision and intervention by the Banking Supervision Department to deal with the problems in the banking system caused by very lax entry standards since 1988.

91. The NBA needs to rapidly expand its role in supervising and controlling the commercial banks and should focus inspection efforts on the areas of greatest prudential risk e.g. restrictions on loan concentration, insider or connected lending, capital to asset requirements, liquidity management, concentration of lending activities by sector, foreign operations, and foreign exchange exposure, and areas where banks have no experience, such as extremely high inflation, interest rate and foreign exchange risk, and the impact of price and exchange rate fluctuations on clients. The National Bank may also want to give incentives to the banks to engage outside auditors as soon as possible by limiting certain activities, e.g. borrowing from the National Bank or the Savings Bank, undertaking large foreign operations, taking over failing banks, bidding for branches of the state banks when these are privatized, etc. to banks that have external audits conducted by internationally recognized firms. In addition, the NBA will need to

merge or close the financial institutions that are already insolvent, require banks to maintain adequate capital to protect against losses, and establish guidelines for restructuring and downsizing the banks with loans to state enterprises. The NBA will need to develop procedures for banks to report and provision on nonperforming loans. This attempt to provide a cushion against risk in the banks will not be very effective during privatization when the banks may be forced to write off many loans, regardless of repayment performance, as the public enterprises are privatized. However, the NBA may want to require banks to establish loan loss reserves for private sector loans or for newer loans to public enterprises.

92. Adjustment of the capital requirements is essential for building a greater cushion against risk during the transition. The Armenians plan to shift from the current standard of restricting the ratio of deposits to capital to a standard that specifies the ratio of assets to capital. The international capital standard is about eight percent in stable developed systems. The Armenians should use a higher capital to asset ratio of at least 10 and perhaps as high as 15 while the economy is going through difficult adjustment, banks are learning to evaluate and price risk in their portfolios, and the banking supervision department is being strengthened. During this period the banks are subject to considerable losses depending on the terms for privatizing public enterprises.

93. The minimum capital standards have been badly eroded by inflation. In September 1992 a Presidential decree increased the minimum capital requirement for existing banks to R 40 million effective in one year. New entry requirements are capital of R 40 million; foreign banks need US \$0.5 million; and branches of banks from the FSU have a capital requirement of 10 million rubles. The adjustment from 10 to 40 million rubles for existing banks will require the closure or merger of many of the smaller banks. After this initial adjustment the minimum capital standard requirement should be increased in line with inflation.

94. Many of the new small financial institutions started since 1988 are already insolvent and most will be undercapitalized once a capital to asset requirement is adopted. The large banks are all badly undercapitalized. In a decentralized banking system, badly undercapitalized or insolvent banks have incentives to finance high-risk projects with the potential for high returns. Since the capital of (public) owners has already been lost, there is no incentive to pursue safe lending strategies. High-risk operations of insolvent banks threaten the stability of the payments system, misallocate resources, and make the problem of controlling inter-enterprise arrears more difficult. Some undercapitalized financial institutions, including the state banks, are paying dividends to owners rather than retaining earnings to build capital. The NBA should consider sharply restricting the dividends paid by undercapitalized banks.²⁰ In addition some financial institutions will need to be closed. If some of the larger banks fail or run into severe liquidity problems it could badly disrupt the system. Some of the smaller problem banks will fail²¹. Some failures can be handled by the market. However, the NBA should monitor these failures to guard against disruption in the payment system and further erosion of low public confidence in the financial system. The market may not detect and force closure of all insolvent financial institutions so

^{20/} Most banks are showing paper profits now with very large spreads and no requirement to provision for nonperforming assets. These profits are fictitious and would be quickly wiped out if banks were setting aside adequate loan loss reserves or write-off loans to enterprises that will be privatized. Banks should be required to use retained earnings to build up capital rather than paying dividends to owners who are also getting loans.

^{21/} There have reportedly already been a few failures of small banks that were handled without incident by the market.

the NBA may have to close or arrange mergers for some badly undercapitalized banks. In the event of bank failure, household deposits should be returned first and losses taken by shareholders from capital and the deposits of shareholders. Some of these failing banks may be sold to the stronger banks rather than liquidated. Only banks with experienced staff that are meeting prudential standards, have adequate capital, and have external auditors should be allowed to take over failed banks.

Market Structure, Ownership, and Concentration

95. There are severe inherited problems with the financial institutions now operating in Armenia. The state banks have operating practices developed for a controlled economy, all are severely undercapitalized or insolvent, and most public enterprise clients are going to be privatized leaving the payment of the outstanding loans uncertain. The new small financial institutions are owned and lend primarily to public enterprises that will be privatized over the next few years and most do not have core commercial banking skills yet. Armenia will face decisions on how to treat the large state financial institutions, how to cut the link between the public enterprises and the captive small banks, whether any of the existing public financial institutions can convert to commercial banks, and how to create an environment to attract and foster commercial banks to serve as a base for future financial development. There are no clear answers to these questions, and little historical precedent to guide policy. Nonetheless, financial sector reforms will have to be coordinated with the privatization program to move to a market structure and ownership pattern for the banks more conducive to independent commercial banking. The following strategy is recommended:

- strengthen banking supervision, emphasizing prudential standards in the areas of greatest risk, for existing institutions and merge or close the weakest financial institutions;
- cut the links between public enterprises and the captive small banks when the enterprises are privatized by selling the bank separately from the owner enterprises;
- impose government and the NBA oversight to control the transitional losses in the state banks;
- reduce the size of the state banks sharply by writing off loans as the major clients are privatized;
- eventually privatize the state banks.

96. The rapid proliferation of small weak banks established to lend to related enterprises needs to be halted and reversed through a combination of the NBA intervention on licensing and prudential standards and macroeconomic policy adjustments. First, the macroeconomic distortions that have encouraged groups of enterprises to establish banks should be corrected, especially the highly negative real interest rates on advances from the Savings Bank and the National Bank. Second, the NBA should adopt much more stringent licensing standards for new banks, requiring a complete evaluation of management, quality of capital, banking skills, and business plans. Third, the regulations should cut the close links between banks and the commercial enterprises that own shares. Establishing and strictly enforcing limits on lending to related enterprises and loan concentration will encourage banks to diversify lending and make independent lending decisions. In addition to restricting connected lending, (for instance, by prohibiting a bank from lending more than 15% of capital to an owner), all loans to owners must be reported to the NBA, and the banks should be required to reduce total lending to related

companies and owners. It is recommended that the NBA monitor total lending to related companies with the absolute maximum not to exceed 75% of loans at the end of one year, 40% at the end of the second year, and 25% at the end of the third year.²²

97. In order to encourage banks to expand lending outside the group of related enterprises, the government will have to provide a suitable legal framework through banking, collateral, bankruptcy, and contract laws and a credible legal system. Under the current regulations, banks cannot take equity positions in companies. This provision should be strictly enforced, and the NBA should also cut some of the perverse indirect links. For example, very weak banks are paying high dividends to the parent enterprises and these funds are used to expand the network of related enterprises. The NBA should prohibit dividends during the first three to five years of bank operations and forbid dividend payments from very weak financial institutions.

98. Public enterprises and Ministries have used management and investment autonomy to become major shareholders in the banks. Moving to a banking system owned by public enterprises decentralizes ownership but does not bring the improvement in efficiency and management that would be expected if the banks were outside the public sector. The pattern of ownership by ministries and public enterprises will cause problems as the public sector shrinks and the privatization program moves forward. Armenia took the first step towards cutting this link by announcing a program in September 1992 to phase out ministry ownership of banks.

99. The privatization program for state enterprises can be used to cut the link between enterprise owners and their banks. Cutting this link directly at the time of privatization will be more effective than trying to use prudential regulations on connected lending and banking supervision. First, the government should prohibit new investment by state enterprises in banks to avoid the problem of cutting the link between the public sector and the banks later. Second, the government needs to develop guidelines on how to deal with the shares of banks currently held by state enterprises during privatization. The most direct way to deal with the enterprise shares is to write off enterprise loans against their share capital.²³ The shares of banks should be sold or distributed separately from the shares in the parent enterprises to weaken the links and move towards a more autonomous banking system. The government should also develop a phased program for enterprises that are to remain in the public sector to sell their shares in banks over time.

100. As the current system of connected lending is interrupted, this leaves the difficult question of funding the enterprises awaiting privatization. The government has not specified which enterprises will be sold so that new owners assume responsibility for repayment of bank loans and which enterprises will be cleared of bank loans before privatization. If the banks are guaranteed repayment of enterprise loans at the time of privatization, this creates a moral hazard problem and banks will prefer to lend to state enterprises over new private companies. On the other hand, banks will curtail all lending to public enterprises if not compensated at the time of privatization. In the design of the privatization program, the government will need to clarify the question of responsibility for repayment of new lending to

^{22/} The state banks are now lending 20 - 30% of the portfolio to shareholders. This percentage should not be allowed to increase.

^{23/} Even before privatization, dividends on enterprise shares should be used to reduce the loans instead of paid to enterprises and new borrowing should be restricted.

enterprises to balance the need for working credit for the enterprises while still putting in safeguard against automatic credit.

Management of State Banks

101. Under early reforms the state banks became joint-stock banks and sold shares. Lending is still heavily concentrated by sector to traditional clients and the new shareholders have large claims on available credit resources. Portfolio performance is deteriorating with the economic crisis: the banks are being asked to finance critical economic activities and will also be adversely affected by the privatization program. The loan losses could become much worse and easily grow to undercut fiscal and monetary control. Some interim measures are needed to control losses as well as measures to start reforms. It is recommended that the government undertake diagnostic studies of the state banks to get the information necessary to set performance guidelines to control lending losses, procedures for dealing with bank loans as enterprises are privatized, and start institutional reforms to restructure and downsize the state banks. The details of the reform program will have to be decided within the broader strategy to deal with loss-making enterprises during the transition and the privatization program.

102. The first stage in reforms should be an evaluation of the current situation through baseline diagnostic studies. At the same time, internal management practices in the state banks should be strengthened to help control losses. While it is impossible to get a clear evaluation of the state banks because the situation is in flux, work should be undertaken to establish basic portfolio information and identify existing losses and unreconciled accounts. This exercise could also review the operating procedures of the banks, implement the new accounting practices and standards, establish simple loan classification procedures, strengthen internal audit capacity, and review the business plans for the bank.

103. There are several dimensions to the lending problem during the period of economic upheaval and transition. These include directed credit by the government to meet emergency needs; government pressure to lend to enterprises because of expected unemployment problems; the decision of banks to continue lending to weak enterprises rather than acknowledging loan losses; and the problem that most lending will be extremely risky in the current unstable economic environment.

104. During the first months of independence, the banks had considerable autonomy in lending decisions. There has been more pressure by government to direct credit as the economic situation has deteriorated. There is a recent initiative to coordinate and contain the growing pressure from Ministries on the banks to allocate credit to critical import needs and to distressed enterprises by establishing a clearing committee chaired by the National Bank with representatives of the Parliament. This may set an undesirable precedent of involving Parliament in credit allocation. This temporary arrangement has obvious disadvantages in politicizing the credit allocation process and should be replaced quickly with other mechanisms to guide credit allocation once economic and political conditions stabilize. It will probably take Armenia several years to move to a clean distinction between putting enterprise subsidies into the budget and leaving only commercial lending in the banks but as soon as political and economic conditions permit, the government should move back in this direction.

105. The banks also face significant loan losses from general economic instability and uncertainty and the sweeping economic reforms. In some financial sector reform programs, an effort has been made to control loan losses by isolating high-risk or non-performing public enterprise loans into separately managed units or consolidating the bad loans in a special agency or in the weakest state bank

that can later be liquidated. Any additional lending to public enterprises not able to service the debt should be monitored closely by budgetary authorities. While separating the management of non-performing from the performing loans may help cut the link between weak public enterprises and the state banks, potential benefits of 'moving' non-performing loans to separate management units should examine the administrative and staff costs carefully. It may be more cost effective to force the banks to stop lending and write off the nonperforming loans. This makes any subsidies to loss-making enterprises the obligation of the budget rather than the banks.

106. These options will have to be evaluated in light of the design and speed of the privatization program for public enterprises. If the economy continues to deteriorate, and banks are called on to do non-commercial lending, this should be moved to the budget as soon as possible or done under specific repayment agreements with the government.

107. Another dimension of the credit allocation problem is that the distinction between viable and unviable enterprises is far from clear early in the reform process, is clouded by the trade disruptions and blockade, and is clouded further by the pending problem of privatizing enterprises over the next few years. The government will need to work out guidelines and risk sharing arrangements with the banks for the transition to monitor and control further repayment deterioration in the banks and potential claims on the budget accumulating as losses in the banking system. The state banks should be under specific management and performance agreements to contain loan losses and enforce accountability in lending decisions. At least one dimension of this monitoring exercise should be to evaluate banks on commercial criteria and profitability.

108. The government should halt some of the undesirable manifestations of management autonomy previously given to the state banks, especially the sale of shares in the state banks. The Agricultural Bank, the State Commercial Bank, the Bank for Industry and Construction, and the Export-Import Bank have been given a great deal of management autonomy, converted to joint-stock companies and are selling shares to public enterprises and the private sector. Giving management autonomy and selling shares in extremely weak or insolvent financial institutions before a strategy is outlined for dealing with these institutions, may increase the problems of restructuring and downsizing these institutions later, especially since the state banks are lending more than the capital contribution to the new shareholders. The arguments for allowing the large state banks to sell shares in the near term, such as raising more capital and getting more shareholders to provide management oversight, are outweighed by the problems that develop when state banks sell shares to enterprises in exchange for access to loans. Investment in state banks is extremely risky since all are badly undercapitalized and some are insolvent, so investment must be motivated by the desire for preferential treatment and access to credit. Shareholders in insolvent institutions have incentives to decapitalize the already weak institution quickly. While it is highly desirable to reduce public ownership in the banking system, it should be done with a managed rather than an ad hoc strategy because of the problems of privatizing insolvent banks. It is recommended that the government halt the sale of shares in state banks until restructuring plans are developed.

109. Restructuring and reducing the size of the state banks will have to be done in conjunction with restructuring and privatizing the state enterprises. High inflation and negative real interest rates are eroding the burden of the stock of parastatal debt in the banks. The balance sheets of the state banks can be further diminished by cancelling outstanding debts against deposits or capital contribution as enterprises are privatized, consolidating some of the unreconciled liabilities and assets in the banking system arising from the break-up of the Soviet Union with unreconciled government accounts, and writing off bad loans and other accounts. Special provisions of the privatization program, rather than bankruptcy,

may be used to deal with some state enterprise bad debt in the banking system. Setting the rules for restructuring and downsizing early in the reforms will reduce the budgetary drain of dealing with the state banks. Reducing the size of the state banks as the clients are privatized also has the advantage of making it easier to privatize the state banks in the future.

110. Finally, the state institutions dominate financial markets, shape the competitive environment, and allocate significant resources in the economy. These institutions should not be allowed to use current market power and management autonomy to reassert dominance of the markets or discourage the growth of private banks. A strategy for financial sector reform should aim over the medium term for a 'level playing field', with equal treatment in policies and regulations of all financial institutions, removing any special privileges for the state banks, commercializing operations to the extent possible, minimizing losses, shrinking these institutions through privatization of their clients, and eventually privatizing the state banks.

The Savings Bank and Household Savings

111. Armenia has an established tradition of significant household savings in the Savings Bank. Savings Bank-Armenia has R 7.6 billion in uncovered liabilities to households in Armenia for funds transferred to Sperbank-Moscow for general budgetary support. The unresolved status of blocked Savings Bank deposits, as well as the sharp fall in household incomes, negative real deposit rates, and lack of confidence in the financial institutions have stopped the flow of household savings into the banking system. The new smaller banks have only R 11.4 million in household deposits and the state banks, excluding Savings Bank, have R 21.9 million. Therefore household deposits outside of the Savings Bank were only R 33.3 million as of April 1, 1992. It will not be possible to build an intermediation process in the economy until households regain confidence and have incentives to deposit in the banking system. Attracting and protecting household deposits as the base for developing a viable financial system should be a priority. The Government is currently preparing a program to index and unblock Savings Bank deposits, which should encourage reintermediation. Prudential regulations to increase confidence in the safety of depository facilities.

112. The government does not have the budgetary resources to honor deposits blocked in the Savings Bank immediately and will have to spread this burden over time. The Government is currently discussing issuing privatization vouchers for the Savings Bank deposits. Under this plan, households would be allowed to trade or sell their vouchers. As it is likely that the resale value on privatization vouchers issued for the Savings Bank deposits will be quite low, households should also have the option of leaving the deposits in the Savings Bank in some type of term savings instrument.

113. The obligations that depositors do not want to swap for government debt or convert into privatization vouchers will have to be covered by issuing government interest-bearing bonds to the Savings Bank. It is highly unlikely that the government will have the cash to make interest payments to the Savings Bank in the near term to meet the liquidity needs of the bank. As long as withdrawals are restricted, the government should consider targeting the cash available for withdrawals so that low-income or unemployed households have first call on available cash. The interest rate on deposits should be raised to positive real levels as soon as possible.

114. While all banks can now take household deposits, the Savings Bank has an extensive branch network that may serve as the base for reestablishing basic financial services to households. A

diagnostic study of the Savings Bank should be done within the next year to establish what options are available for reorganizing and restructuring the bank until it can be privatized. The prospects for privatizing the Savings Bank are limited for the next few years since none of the existing banks is strong enough to bid on parts of the branch network.²⁴ While the Savings Bank remains a public bank taking household deposits, the lending options of the bank should be restricted. The Savings Bank should not be allowed to continue on-lending to high risk banks,²⁵ the incremental deposits in the Savings Bank should be subject to the same reserve requirement as the other banks, and a significant portion of any new Savings Bank deposits should be invested in safe government paper.

115. Easing the liquidity problems in the Savings Bank and allowing the public to exchange blocked deposits for privatization vouchers will be a step in rebuilding credibility in the financial system. But to build public confidence in the broader financial system, the government needs to take aggressive action on the unsafe financial institutions in the system. The public correctly perceives new financial institutions as very risky because of the ease of getting a banking license and the rapid proliferation of banks. To restore any credibility to the system, the government will have to tighten the licensing and prudential requirements for banks and force mergers or closure of the weaker institutions. This should be done so that household deposits are covered first when banks are closed.

116. It is strongly recommended that the government focus on tight regulation of the banks to rebuild the confidence in the system. However, if additional measures are needed to attract household savings over the next few years to fund the budget deficit, these should be very limited and narrowly targeted. Deposit insurance is not an option with the present budgetary situation²⁶. One option, although it is acknowledged that there would be significant credibility problems, would be a small denomination bond with government guarantees on the principle and positive real interest rates. These could be sold and redeemed through the Savings Bank offices.²⁷

117. Other factors needed to encourage voluntary savings are bank secrecy requirements and weakening the link between the banks and tax collection. It is clearly recognized that Armenia needs to speed development of an internal revenue service capable of collecting tax revenues based on declaration of incomes and inspection. This will be important not only for the fiscal position, but to build confidence in the banking system. As long as banking records are available to tax authorities, both public and private enterprises will avoid using the banking system.

24/ When such a privatization effort is undertaken, the government will have to issue bonds to cover the remaining obligations on household deposits. In other words, the government will need to compensate the new owners to take over the deposit obligations not met with privatization vouchers.

25/ At a minimum, only commercial banks with external auditors that meet prudential requirements should be allowed to borrow from the Savings Bank.

26/ Even once the budgetary situation improves, there are serious moral hazard problems with introducing deposit insurance.

27/ The current proposal to issue 2 billion in government bonds at negative real interest rates (24%), sold at the time that wages are paid, may slow the process of reestablishing voluntary household savings.

The Medium-term Framework for Development of Financial Services

118. As the economic situation improves, Armenia will have to establish the incentives and environment to attract credible commercial banks, other types of financial institutions, and expand financial services. Economic conditions, the legal framework, and the skill level in the banking system will determine the incentives and ability of the banks to expand financial services. The importance of the legal framework for improving financial services should not be neglected. Armenia is rapidly undertaking legal reforms but it will be some time before the framework for contractual obligations and clear property rights are in place and supported by a functioning judicial system. The financial system will be slow to introduce financial contracts in areas where laws are still weak, property rights have not been clearly defined, and enforcement costs are high.

119. To expand the range of financial services, the banking system will need intensive training programs for the central and commercial banks. Several donors have already visited Yerevan to discuss assistance with training programs for both the central and commercial bankers in management of banking institutions, international accounting standards, credit analysis, and foreign operations. While training is being undertaken in the banking system, the fastest way to increase the range of financial services is through entry of foreign or joint-venture banks to bring in new banking skills. The government is interested in attracting foreign banks but there has only been one new entry, an Iranian bank in June 1992. More active interest will probably not be manifest until the banking law and regulations are in place and the external political situation has stabilized.

120. Establishing a safe base for future financial sector development is a priority. Only after that framework is in place can more attention be paid to the question of promoting competition. Competition among financial institutions will be limited and is potentially destabilizing as long as most institutions are very weak, owned by the public sector, and lending to related enterprises. Competition is dependent on establishing independent financial institutions capable of arms-length credit evaluation. Therefore in the short term, the priority should be policies that lead to greater separation between owner enterprises and banks. The environment for competition will improve if banks are privatized separately from enterprises. It will also improve the environment for future competition if the state banks are reduced in size and not allowed to use market power to thwart market development.

121. The Government wishes to set up a Development Finance Corporation which would supply medium-term financing, as this is a serious gap in the system at present. The aim is to interest a reputable foreign bank in setting up an investment bank that would offer advice and evaluated business plans, as well as lending; and would serve as a model of good financial practice.

E. Sequencing of Policy Reforms

122. The National Bank and the Commercial Banking Laws were expected late in 1992. Laws on collateral and bankruptcy are also to be submitted to the October 1992 session of Parliament. The legal framework must be supported quickly with the prudential regulations and supervisory powers of the National Bank. While a longer phase-in period may be desirable for some regulations, the NBA should enforce the prudential regulations that cover the areas of highest risk: credit risk, connected lending, loan concentration, liquidity, and inflation risk. The NBA faces a daunting task in the near term with many very weak and some insolvent and illiquid small banks as well as five large banks in an extremely vulnerable financial condition. To keep the problems from getting worse the NBA should only license

new banks if there are very strong applicants. In addition the NBA should be much more restrictive about licensing commercial banks for foreign operations until the banks have training. It may be premature to allow the banks to take foreign currency denominated deposits. The National Bank will need technical assistance in some new operations, such as implementing new accounting standards, payment systems, foreign operations, reserve management, bank inspection and supervision, and macroeconomic and monetary policy.

123. The pace of banking sector reforms will need to be adjusted to broader economic conditions and reforms in other sectors, especially links among monetary and fiscal control, currency reforms, foreign exchange availability, performance of the public sector economy and privatization. Macroeconomic stability and lower inflation are obvious priorities for improving the performance of the financial system. Also fiscal reforms are critical so that the government will not be so reliant on financing from the banking system. Any setbacks in achieving macroeconomic stability or broader economic reforms, or need for direct government intervention to deal with the sharp decline in the economy, will limit the options for moving towards a commercial banking system.

124. As a member of the ruble zone Armenia has limited discretion on monetary policy, but Armenia has lagged far behind Russia in adjusting the rate on National Bank advances to the commercial banks. The rate in Russia was recently raised from 50 to 80%. The rate in Armenia was raised from 22 to 30% in July 1992, and to 60% in January 1993, leaving the rate both strongly negative in real terms and less than in other ruble-zone countries. Since the commercial banks on-lend the funds with spreads restricted to 4%, there is a very large subsidy to about one-third of bank borrowers that get these cheap funds. In recent months this has primarily been the government. Strongly negative real interest rates wipe out the incentives for financial savings. The deposit rate on the Savings Bank averages 6% so households have incentives to stockpile goods rather than hold deposits. While it is realized that raising the interest rates will not be sufficient to encourage a strong short-term response from depositors, and that higher interest rates will increase repayment problems among borrowers and increase the interest obligation in the government budget, these factors must be weighed against the distortions in resource allocation caused by incorrect interest rate signals in the economy and in the financial system.

125. Public enterprise and banking reforms must move forward together. The speed with which the banking system can begin operating on a commercial basis depends on cutting the direct and indirect links between the banks and unviable public enterprise clients. The first step is to implement restrictions on connected lending. Second, public enterprises should not be allowed to start captive banks. Over time the link can be cut by separating the banks from the owner enterprises before privatization.

126. The work program for the state banks should begin immediately with the intention of reducing and restructuring the state banks as the public enterprise clients are privatized. Early steps in developing this strategy could include basic diagnostic overviews of the financial position and reviews of the operating practices of the state banks. Guidelines should be established to control high-risk lending and loan losses and the government should halt sale of shares in state banks. As the enterprise privatization program moves forward this can be used to force restructuring and downsizing of the banks. However this process is going to demand a great deal of management guidance by the government since radical ownership changes and shifting economic incentives will disrupt financing patterns. Interim financing plans will be needed.

127. Rebuilding confidence in a banking system will take time and some of the steps are going to be a drain on the budget. The government is prepared to offer privatization bonds in exchange for household deposits in the Savings Bank. The plan should be put in place very soon to allow households to take part in the small-scale privatization program. Also the government is planning to meet the obligation of household and joint venture deposits frozen in the Export-Import Bank from the demise of the V.E.B. Bank.²⁸ Efforts should also be made in other areas that will help reverse the disintermediation in the economy. A restructuring plan for the Savings Bank should establish sufficient reserves so that new household deposits are guaranteed access to currency for withdrawals. As soon as possible the link between bank records and tax collection should be cut. The government should also avoid forcing involuntary savings on the population at very low nominal interest rates through new government bonds.

^{28/} The government is considering a proposal to repay household and joint-venture deposits blocked in the Export-Import Bank early in 1993. Out of the US \$45 million in deposits in the Bank, joint-venture deposits are about \$800,000 and household deposits are \$1.5 - 2 million.

ANNEX III

INDUSTRY: BETWEEN PLAN AND MARKET

A. Armenian Industry and its Role in the USSR

128. In 1991 industry accounted for slightly less than half of Armenia's NMP²⁹ (in 1992 it accounted for 41% of NMP) and for about one fifth of total employment, its share in the economy having declined somewhat since 1988. In accord with general Soviet philosophy, Armenia's economy, and in particular its industrial sector, was highly integrated with the economy of the USSR. It continues to be highly integrated with and dependent on the states of the former Soviet Union (FSU). In 1990 for example, exports to the USSR represented 35.4% of Armenian GDP, making Armenia one of the most highly integrated of the Soviet republics.³⁰ Ninety-nine percent of those exports came from the industrial sector.

129. In broad terms, Armenia's role in the industrial economy of the USSR was to process intermediates and materials procured from other republics and to supply a wide range of consumer and nonspecialized producer goods. As shown in Table 1, it therefore has substantial capacity in light industry (22% of output), notably textiles, knitwear and shoes, and in food processing (27%). In the Soviet context, these branches were considered as highly developed. It also has a sizeable heavy industrial component in the machine building sector (22.5%). Armenia specialized in and exported hosiery, knitted wear, shoes, and washing machines. It also exported processed and canned food. While Armenia was not a net exporter of producer goods in general, it did export vehicle tires, caustic soda, and a sizeable quantity of standardized electric motors and cables, and metalcutting machine tools. Its production of electric motors represented 7.7% of Soviet output.

Table 1. ARMENIA: Production by Branch

BRANCH	STRUCTURE OF OUTPUT		CHANGES IN OUTPUT		92:i TO 91:i
	92 as % of Total 92	91:i as % of Total 92:i	91 as % of 90	92:i as % of 91:i	Deflator 91:i = 100
All industry	100.0	100.0	90.4	50.7	800.0
Electric energy	11.8	12.7	93.3	73.6	1201.1
Ferrous metallurgy	0.2	0.1	80.4	51.3	211.8
Non-ferrous metallurgy	3.2	16.5	90.7	65.8	1193.5
Chemicals and oil processing	7.8	13.4	109.7	95.2	1439.9
Machine Building and metal working	27.2	20.9	89.4	31.8	1002.1
Wood, furniture and paper	0.8	0.7	99.2	32.5	523.7
Building materials	2.9	1.1	90.9	13.7	791.2
Light industry	12.9	13.6	94.1	62.4	471.3
Food processing including grain milling and animal feed	14.4	18.4	84.2	54.2	995.1
Other branches		2.6	93.1	29.7	907.7

Source: State Department of Statistics. Output measured in comparable prices.

^{29/} IMF SM92/43 T1

^{30/} IMF memorandum: External Trade of the Republic of Armenia.

130. On the other hand, Armenian industry has been a net importer of energy and agricultural inputs, chemical inputs and products, wood and paper, and other intermediate goods. It thus depends on imports for a high proportion of its intermediate inputs, and has already been shown to be exceptionally vulnerable to the disruption of intra-FSU trade.³¹

131. Large manufacturing plants were distributed over the Union with little regard for comparative advantage. As a result, Armenia has a number of large enterprises that are undoubtedly white elephants in the face of any rational pricing structure. One example is an aluminum plant, requiring imported materials and costly electric power. Another is a synthetic rubber plant, constructed despite scarce energy and hydrocarbon resources.

132. During the Soviet period, Armenia was accorded a disproportionate share of the military-industrial complex and was a net exporter of military goods. Unfortunately for these enterprises, the political developments of 1991 have drastically - and permanently - reduced the demand for output from this sector. According to some estimates, military production has decreased from 10% of industrial output in 1990 to 5% in 1991. Some of the military plants have been partially converted to the production of consumer goods such as television sets, and to producing construction equipment. Many of the enterprises, however, have not yet been retooled.

133. With a strong human resource base in mathematics, Armenia's military sector became a center for computing (including the construction of supercomputers), and this has left the country with a good skills base in computing and related software areas.

134. Industrial reform and restructuring will therefore require major shifts within Armenia's industry towards sectors which better exploit its natural comparative advantages. These include:

- a relatively well-trained and educated labor force, including skills in certain high-technology areas,
- agricultural resources for possible "niche" products such as specialty processed fruits, brandy and wine, and
- a range of nonferrous ores such as copper, molybdenum and zinc and various other earthen ores that may turn out to be of extractable value when mining operations are evaluated at world prices.
- Armenia's position at the intersection of natural trading routes may also prove to favor light industrial activities as well as services once communications with neighboring countries are normalized.

135. Interrepublican Trade Balances. Armenia's interrepublican trade deficit in 1990 was 80.3 million current rubles which represented only 2.3% of its imports from the FSU area.³² Analyses of the impact of converting to world prices suggest that the revalued deficit would have been considerably

^{31/} This vulnerability was evident in the second half of the 1980s, as Armenia's exports declined from R 5.5 billion in 1986 to R 3.5 billion in 1990. The main factor responsible was a drastic fall in exports of machines and metals which, in turn, was largely due to difficulties in obtaining inputs from other republics. IMF SM92/43. In May 1992 the food processing industry was operating at one third of capacity, largely because of the unavailability of imported inputs.

^{32/} IMF, External Trade of the Republic of Armenia.

larger, mainly because of Armenia's resource-dependence.³³ In the first half of 1992, the deficit had risen to 3,131 rubles, or 30% of its imports from the FSU.

136. Trade Outside the FSU. Armenia's foreign trade outside the Soviet Union, was very small, and trade continues to be small outside of the FSU. In 1990 Armenian exports outside the USSR comprised only 1% of GDP. Foreign imports, on the other hand, have been in the range of 25% of GDP, so that Armenia ran a significant foreign trade deficit.³⁴ In the absence of Union financing in 1992, foreign imports dropped dramatically to less than 1% of GDP.

137. Armenia's imports from foreign countries have mostly been light industrial products, processed foods and agricultural products, but it is also a net importer of non-ferrous metals, chemical products, and machine-building and metalworking sector products. Armenia switched from being a net exporter of non-ferrous metals in 1987 and 1988, when non-ferrous metals made up around 25% of Armenia's foreign exports, to being a net importer of non-ferrous metals in 1989 and 1990. Imports of foreign machines and metalworking equipment also rose sharply. Considering specific product groups, pharmaceuticals made up one third of imports of foreign chemical products and 2.5% of total foreign imports. Automobiles and parts, radio electronics, and machinery and equipment for the light industries were important imports. In 1990, Armenia imported 20.8 million current rubles worth of such machinery, which represented 16.7% of its machinery imports and half of its total imports of these products.³⁵ While this indicates a considerable dependence on foreign imports for light industry, it also suggests that Armenian light industry now possesses some up-to-date equipment that may facilitate foreign exporting.³⁶ Ninety two percent of Armenia's imports of furniture came from foreign sources in 1990, while foreign imports of such light industrial products as hosiery and knitwear, sewn goods, and leather represented around 50% or more of total imports. Finally, over half of Armenia's imports of agricultural products came from outside the FSU.

33/ An analysis of Soviet interrepublic trade done by Brown and Belkindas shows that while domestic prices overvalued both Armenian exports and imports, exports were more overvalued so that the terms of trade shift from a move to world market prices is negative. For 1989, Armenian interrepublic and foreign trade balance in domestic prices was 1210 million rubles and in world prices was 1400 million rubles. PlanEcon reports that in 1988, Armenia's interrepublican trade deficit was 1120 million rubles in domestic prices and 1400 million rubles in world prices.

34/ For 1991, the foreign trade deficit in domestic prices was 610 million rubles and in world prices was 254 million rubles: IMF, External Trade of the Republic of Armenia.

35/ Department of Statistics. According to the Ministry of Light Industry, in 1990 and 1991 enterprises in this branch imported \$200 million in equipment from outside the CIS.

36/ Because of reduced production levels, much of this equipment appears to be still unpacked and not installed.

B. Oversight of the Industrial Sector

138. Industrial production in Armenia falls under the oversight of several ministries and departments. The ministries include the Ministry of Heavy Industry, the Ministry of Light Industry, the Ministry of Food Industry, the Ministry of Forest Products and the Ministry of Energy. The departments are not on the same governmental level as the ministries, but they are separate entities and do not fall under the purview of the ministries. Two departments relating to the industrial sector are the Department of Building Materials and the Department of Local Industries. Some enterprises fall under the oversight of both a ministry and a separate department.

139. The Ministry of Light Industry controls 72 large enterprises and 280 smaller ones with total employment of 110,000. The most developed branches include shoes, textiles, garments and knitwear, and carpets. The exports of these firms in 1991 amounted to \$15 million, and were mainly handmade rugs and knitwear. Most of the plants producing consumer goods are being severely squeezed by the sharp decline in nonfood household demand that has accompanied soaring prices and falling real wages. Short time is common, and firms are working at low levels of capacity.

140. The Ministry of Heavy Industry was established only in February, 1992, to preside over the former All-Union plants bequeathed to Armenia. It controls 400 large industrial enterprises. These are organized in several departments, including chemicals and drugs, metal products, machinebuilding, and jewelry and diamonds. Many enterprises have considerable monopoly power within the FSU.

141. The largest department of the Ministry is that of Machine Building, which supervises 231 enterprises with 145,000 employees. These fall into three branches: equipment and auto machinebuilding (61 factories and 30,000 employees); electrotechnical industry (70 factories and 40,000 employees); and radio electronics (100 factories and 75,000 employees). The first branch produces general-purpose machines for forming metal parts, as well as pumps and motors. The second is highly developed in the Soviet context, being the third or fourth largest Soviet complex in areas such as electric motors, generators, gauges, electric cables etc. The third represents the former All-Union defence industry enterprises. It is believed to include the best quality equipment and most highly skilled employees in Armenia.

142. The current situation of these branches is quite differentiated. Some of the factories, particularly in the electrotechnical branch, have adequate orders, including those through the state system, and are operating at moderately high levels of capacity. Many of the firms have the advantage of producing relatively unspecialized products, that might find quite broad export interest, particularly in middle-income countries. The financial situation of the third branch is the most serious. About 10% of the employees have left in the last year, some having been recruited by the private sector.³⁷ Although this represents an informal process of conversion, the government is concerned that critical mass will be lost in some areas of expertise, and that this will seriously reduce the value of the enterprises.

^{37/} In the opinion of the Ministry, those who have left represent the best "second rank" of engineers and technicians.

143. Particularly in this branch of ex-military industries, it is urgent to start classifying enterprises according to their potential for survival and export potential, and to involve foreign expertise in the assessment.

C. Concentration and Monopoly

144. Although not as large as enterprises in the bigger states of the FSU, Armenia's enterprises are large, especially considering the size of its economy. In 1987, 89.6% of all workers were in enterprises with over 300 workers and 74.9% of these were in enterprises with over 1000 workers. Average firm size in the industrial sector was 445 workers. Table 2 lists average firm size by branch. The largest firms were in the branches of machine building and metal working (1693 average), and light industry (1023 average). Vertical and horizontal integration contributes to the size of enterprises. While the statistical office reports 605 firms, the relevant ministries report much greater numbers. For example the statistical office receives data from 76 light industrial firms, but the Ministry of Light Industry claims control over 352 enterprises. This discrepancy arises because the statistical office counts conglomerates, while the ministries often count their various factories separately.

Table 2. ARMENIA: Firm Size

BRANCH	NUMBER OF	NUMBER OF	AVE. WORKERS PER FIRM
	FIRMS 1991	WORKERS 1991	
All industry	605	269466	445
Electric energy	7	6038	863
Black metallurgy	3	681	227
Colored metallurgy	14	6254	447
Chemicals and oil processing	16	10618	664
Machine Building and metal working	66	111737	1693
Wood, furniture and paper	18	5565	309
Building materials	94	16483	175
Light industry	73	74704	1023
Food processing including grain milling and animal feed	121	19514	161
Other branches	193	17872	93

Source: State Department of Statistics. Output measured in comparable prices.

Table 3. ARMENIA: Concentration of Industrial Production within Armenia

PRODUCT	NUMBER OF PRODUCERS	OUTPUT SHARE	OUTPUT SHARE
	1980-90	1980-90	1991
Power stations	1	100	100.0
Electromotors	1	98	98.5
Electric lamps	1	100	100.0
Power cables	1	100	100.0
Metal-cutting machines	2	65	67.8
Trucks	1	100	100.0
Synthetic rubber	1	100	100.0
Tires	1	100	100.0
Chemical fibers	1	100	100.0
Cement	2	100	100.0
Flagstone	1	100	N/A
Carpets	2	85	93.9
Textile	3	45	N/A
Leather shoes	3	65	54.8
Garment	3	45	55.5
Knitwear	2	65	28.5
Cotton fabrics	2	60	86.7
Woolen fabrics	2	85	N/A
Silk fabrics	1	80	97.2
Canned food	3	48	52.3
Wines	3	86	94.5
Cognac	1	90	81.9
Mineral water	1	90	95.1

Source: State Department of Statistics.

145. As a result of the Soviet industrial strategy, production in Armenia is highly concentrated among a few large firms. Table 3 shows the shares of the largest producers as percentages of total Armenian output of certain products. This degree of concentration would limit the action of domestic competitive forces even if state orders were no longer a factor.

146. The degree of monopoly and concentration within Armenia points to the need for Armenia to implement an open trade policy. It also signals the need to encourage the dissolution of industrial groups. Such a policy appears to have some potential for increasing the number of firms and the level of competition in the economy.

D. Performance in 1991 and 1992

147. The performance of Armenia's industry has been strongly affected by a combination of FSU-wide developments outside the direct control of Armenia and factors specific to Armenia, only some of which are under the direct control of the government. The former include the powerful macroeconomic pressures and regional export restrictions that have caused a progressive breakdown of

the centralized trading arrangements leading to shortages and the disruption of trading links. The crisis of Vneshekonombank effectively confiscated foreign exchange deposits held by many Armenian enterprises. Tightened credit resulted from the shrinking of deposits in real terms, because of highly negative interest rates and a loss of confidence in the financial system due to Pavlov's abortive confiscatory reforms in 1991. In Armenia, the freezing of Sperbank deposits has further undermined confidence in financial institutions and contributed to reduce the availability of credit.

148. Another FSU-wide development that has seriously affected Armenia's enterprises is the deterioration in the clearing system, particularly for interrepublican payments. With suppliers unwilling to ship intermediate inputs until payment has been credited to their accounts, Armenia's enterprises face lengthy periods of closedown even when willing and able to purchase supplies. Finally, the "cash shortage" impacts on Armenia's sales, as it does in other parts of the FSU, squeezing demand for consumer goods and contributing to the buildup of stocks of final products.³⁸

149. Factors specific to Armenia include the earthquake of 1988, which damaged some industrial plant severely, disrupting production chains. Some of these plants have not been rebuilt. Most seriously, the economic blockade by Azerbaijan and Turkey and disruption of trade through Georgia have curtailed critical imports to Armenia, especially imports of vital fuels. The resulting energy crisis forced the Government to restrict operation of schools and government offices as well as to completely close down many enterprises from November 1991. The blockade also curtailed exports out of Armenia, constraining effective demand. In addition, Armenia has shown a trend towards lower pay settlements than Russia. This has shrunk nonfood consumer demand even more sharply, and further contributed to the buildup of stocks of such finished goods as clothes and shoes. Competitive pressures seem to be insufficient for this to be reflected rapidly in price-cutting.

150. Faced with this combination of events, it is not surprising that Armenia's industrial output has fallen sharply and that its performance in 1990 and 1991 was among the worst of the former Soviet republics, although macroeconomic estimates are subject to considerable uncertainty.³⁹

151. Output Developments in 1991. Armenia's industrial growth slowed in the 1980s and production declined from 1988. Table 1 shows the changes in output by branch from 1990 to 1991 and between the first quarter of 1991 and the first quarter of 1992.⁴⁰ Production fell about 10% in 1991. This drop was fairly evenly spread across branches with the exception of ferrous metallurgy and food processing which contracted more sharply, and chemicals and oil processing on the other hand, which actually rose.

38/ For an analysis of the "cash shortage" in Russia, see Richard Layard, "Prices, Incomes and Hardship", paper presented at Stockholm Institute of Soviet and East European Studies, June 15-16, 1992. The cash shortage affects especially private businesses. At least one in Armenia has opened a casino in order to secure a supply of cash rubles.

39/ The declines in NMP produced were 13.2% in 1990 and 11% in 1991 (Planecon March 27, 1992 T6). The declines in NMP used were 10.7% and 14.1% respectively. The use of output as between consumption and investment demand has apparently fluctuated violently in Armenia in 1990-1992.

40/ It is preferable to measure the first quarter of 1992 against the same quarter of 1991 since Armenia's industry is affected by strong seasonal factors.

152. Output Developments in 1992. The impact of the winter 1992 energy crisis is reflected by the change in output volumes for the first quarter of 1992. Industrial output was only 51% of production in the same quarter of 1991, but performance varied greatly across branches. While chemicals and oil processing output remained near its 1991 level, building materials output fell to only 13.7% of the 1991 level. Because of the energy crisis and severe budgetary constraints, the government froze most of its construction projects, severely reducing the demand for building materials. Machine building and metal working also experienced a major contraction - of 68% - because of imploding investment and military demand. Many enterprises simply did not operate during the first quarter - in January 1992, only 206 industrial enterprises, or 33.6% of the total, were operating at all. By March, 403, or 65.7%, were operating at some level of capacity. By April, 514 or 83.6% of the industrial enterprises were operating, and production rose from March to April by 18.5%.⁴¹

153. In the first quarter of 1992, output proportions therefore changed significantly, in ways which largely reflected the priorities of the government. For example, electricity production was a priority sector for fuel allocation, so that first quarter electricity production in 1992 represented between 65% and 70% of corresponding production in 1990. Households also were accorded high priority in access to electricity. Another factor responsible for changing output proportions across industrial branches has been the changing response to environmental concerns. Before 1990 the government had closed a number of enterprises, especially in the chemical sector but some, such as a synthetic rubber plant outside Yerevan, have subsequently reopened despite some protests.

154. Despite the dismal output picture, only 8.6% of the operating firms failed to fulfil their state orders, and the value of non-delivered goods was only R 729.1 million or 5.2% of industrial production for the four month period. This suggests that state orders have been continuously revised to take into account changing production possibilities, as well as used to influence the pattern of output.

E. Employment, Wages and Prices

155. Table 4 shows shares of industrial employment by branch. Together the branches of machine building and metal working and light industry account for almost 70% of industrial employment. Total employment in the industrial sector decreased from around 326,000 in 1990 to around 269,000 in 1991, a fall of 17.5%. This represents a considerable fall in industry's share of overall employment, from 20.0% in 1990 to 16.6% in 1991. Employment rose only in electric energy, falling in all other sectors. Indeed, in all cases except metallurgy, the decreases in employment apparently exceeded those of output.

^{41/} Information for April comes from the May Summary of Economic Developments. The increase in production from March-April 1992 was the same as in the corresponding period in 1991, and was below the 27.5% increase in the number of operating firms.

Table 4. ARMENIA: Employment

BRANCH	90 % of 90 total	91 % of 91 total	90 to 91 % change in workers	90 to 91 % change in output
All industry	100.0	100.0	-17.3	-9.6
Electric energy	1.6	2.2	13.1	-6.7
Black metallurgy	0.2	0.3	-3.5	-19.6
Colored metallurgy	2.0	2.3	-4.0	-9.3
Chemicals and oil processing	3.7	3.9	-12.7	9.7
Machine Building and metal working	40.7	41.5	-15.7	-10.6
Wood, furniture and paper	2.6	2.1	-33.4	-0.8
Building materials	5.9	6.1	-14.3	-9.1
Light industry	28.0	27.7	-18.0	-5.9
Food processing including grain milling and animal feed	7.7	7.2	-22.4	-15.8
Other branches	7.6	6.6	-27.4	-6.9

Source: State Department of Statistics.

156. This phenomenon seemed to reverse itself in 1992, as employment remained relatively stable through the fall in output. Many firms did implement temporary layoffs and paid employees only a proportion of their full wages, but the economy did not experience mass unemployment. Firms seemed to be trying to maintain employment during the recessionary period.

157. Wages increased in all branches from 1990 to 1991 as shown in Table 5. The increase in average 1991 wages over average 1990 wages for the whole sector was 38.8%. With retail price inflation in 1991 of 142.3%⁴², wage inflation lagged far behind price inflation. It may be significant that the branches with the highest average wages in 1991 -- electric energy, non-ferrous metallurgy, chemicals and oil processing and building materials -- are all included in heavy industry. The firms in heavy industry also reported proportionally smaller decreases in the number of workers from 1990 to 1991, as shown in Table 4. The two branches with the greatest wage increases, electric energy and chemicals and oil processing, are also both monopolies. We have very little information on the evolution of the wage structure in 1992.

158. As wages fell behind prices, wage payments fell relative to output. In 1991, wage payments represented about 10% of total industrial output, a substantial decrease from around 15% in 1990. The share of wages in output value is shown by branch in Table 6. The decrease in the wage bill as a percentage of output is fairly uniform across branches.

159. Across branches in 1990, electric energy and chemicals and oil processing were relatively capital intensive. Together they controlled 25.5% of the capital stock in the industrial sector while they only employed 5.3% of the industrial labor force: see Table 7. Light industry was relatively labor intensive, employing 28% of the industrial labor force with only 12.9% of the capital stock. Average wages in light industry were relatively low in both 1990 and 1991.

Table 5. ARMENIA: Wages

BRANCH	Monthly Ave. Wage 1990	Monthly Ave. Wage 1991	90 to 91 % change in ave. wage	90 to 91 % change in workers
All industry	259	359	138.8	-17.3
Electric energy	258	545	211.4	13.1
Black metallurgy	296	386	130.2	-3.5
Colored metallurgy	310	457	147.5	-4.0
Chemicals and oil processing	220	419	190.3	-12.7
Machine Building and metal working	270	362	134.2	-15.7
Wood, furniture and paper	245	346	141.2	-33.4
Building materials	339	444	130.8	-14.3
Light industry	238	316	132.8	-18.0
Food processing including grain milling and animal feed	217	308	142.0	-22.4
Other branches	267	371	138.8	-27.4

Source: State Department of Statistics.

160. According to the April economic summary of the Department of Statistics, industrial price inflation has accounted for a large part of overall inflation from April 1991 to April 1992. The composite index of prices from April to April increased 501.2%. However, inflation in many industrial branches was much higher. The summary lists the following examples of price increases: oil-chemical prices-27.2 times, electric energy-26.1 times, chemicals-17.2 times, non-ferrous metallurgy-15.7 times, cellulose paper-19.3 times, processed meat and dairy products-14.3 times, and machine building and building materials-more than 10 times. This pattern is consistent with that found for other FSU states, including Russia, where price liberalization has resulted in a substantial terms of trade movement in favor of industry.

161. Can the large decline in employment in 1991 be considered as an indication of restructuring? Probably not. From Figure 1, the employment changes were uncorrelated with output changes across branches. As shown in the figure, part of the reason may be that the changed values of output reflected far more the effect of relative price changes than relative volume changes. Except for food processing and the small residual "other" sector, employment and wage bills are positively associated with output values and prices.⁴³ If anything, the pattern of labor and wage adjustment therefore seemed to be driven by the different abilities of the branches to raise prices, with labor absorbing part of the resulting quasi-rents.

^{43/} Changes in food processing output may reflect changes in input costs as much as widened margins.

Table 6. ARMENIA: Cost Structure, Wages

BRANCH	1990 wage bill as % of 90 output	1990 wage bill as % of 91 output
All industry	14.4	9.3
Electric energy	6.6	7.1
Black metallurgy	15.1	16.1
Colored metallurgy	11.0	8.2
Chemicals and oil processing	11.2	9.0
Machine Building and metal working	18.6	16.6
Wood, furniture and paper	17.5	11.8
Building materials	26.3	17.9
Light industry	14.5	10.3
Food processing including grain milling and animal feed	6.1	2.5
Other branches	13.5	5.0

Source: State Department of Statistics.

162. Although not conclusive, 1991 patterns of wage, price and output movements across branches suggest that monopoly power (for those branches with continued demand) has been quite an important factor affecting price and wage increases and the ability to avoid layoffs. This points to the need for some type of incomes policy as a transitory measure until competitive forces are better established and ownership rights are clarified and substantially privatized.

Table 7. ARMENIA: Equipment and Labor

BRANCH	90 equip as % of total equip	90 labor as % of total labor	90 equip as % of 90 prod. fund
All industry	100.0	100.0	42.9
Electric energy	14.2	1.6	32.3
Black metallurgy	0.3	0.2	33.7
Colored metallurgy	4.1	2.0	25.9
Chemicals and oil processing	11.3	3.7	51.2
Machine Building and metal working	37.2	40.7	51.3
Wood, furniture and paper	1.5	2.6	38.6
Building materials	7.1	5.9	35.5
Light industry	12.9	28.0	52.5
Food processing including grain milling and animal feed	8.1	7.7	37.0
Other branches	3.3	7.6	44.6

Source: State Department of Statistics.

F. The Financial Position of Enterprises

163. The available data do not permit an evaluation of balance sheet of the enterprises. In any event, this largely reflects transient factors. High inflation has greatly eroded past debts. Profit markups have continued to be high - 30% appears to be a common level - and this has provided many enterprises with adequate cash flow to meet their immediate needs, even with sharply lower levels of output. The highly monopolized structure of industry, and the assurance of markets at negotiated prices through the state order system have helped to preserve markets in the face of generalized contraction. In addition, inflation has conferred large capital gains from the revaluation of inventories.

164. On the other hand, the ruble financial assets of the enterprise sector have been greatly eroded, and their foreign assets with the Vneshekonombank have been frozen. But in the first half of 1992, many enterprises still claimed to be in net financial surplus, with their assets in banks considerably exceeding their claimed liabilities.

165. Further, as is common in socialist countries, output is considered as income by the enterprises rather than sales. Banks have routinely advanced funds against output inventories, which are usually certified as existing by the enterprise's supervising ministry.⁴⁴ Credit is also often directed to help ailing firms, sometimes at the insistence of the supervising ministry, at least to enable them to pay wages.

166. A further cushion for the enterprises has been interfirm credit, which tends to grow sharply in transitional economies when bank credit is constrained and which has exploded in the FSU. Interfirm arrears almost tripled in the first four months of the year; see Table 8, reaching the equivalent of 65% of outstanding bank loans.

Table 8. ARMENIA: Bank Debt and Enterprise Arrears
(Millions of Rubles)
Outstanding Loans

	Total	Short Term	Long Term	Enterprise Arrears
End 1991	9463	7443	2021	2643
End First Quarter, 1992	10203	8909	1294	6340

Source: Department of Statistics

167. This picture is broadly consistent with the experience of enterprises in Eastern European countries, such as Poland, Bulgaria and Romania, that have initiated stabilization *cum* reform programs from initial situations of severe macroeconomic disequilibrium. The combination of such cushions as those above, falls in the real (product) wage and the insulation from foreign competition conferred by sharp devaluations provide a period of respite for the enterprises. In Eastern Europe, this has sometimes lasted for over one year. The next stage of reform for such countries involves a hardening of the budget

44/ For the first four months of 1992, one third of the output of light industry remained unsold.

constraint on enterprises, assuming that tight monetary policy continues and that interenterprise arrears are contained.⁴⁵

168. Indeed, it is becoming increasingly difficult for Armenian enterprises to get access to the banking system. If this situation continues and arrears are contained, the financial status of enterprises will increasingly reflect simply cash flow. This in turn will depend on whether an enterprise has a ready market for its products and access to inputs. Many enterprises, particularly those in the former military-industrial complex, are reaching the end of their financial tether. Without continued subsidies, closures are expected to increase particularly in this branch in the next few months. In the absence of an operative bankruptcy process, however, there is no exit mechanism for firms, and no process exists for liquidating them and privatizing their assets.

169. Stabilization and a return to growth will require a shift in monetary policy, towards reconstituting financial savings and expanding credit volumes but at a far higher real interest rate. It is important to set in place an adequate monitoring system so that the worst enterprises do not get a large share of re-expanding credit volumes, so causing the bad debt problem to worsen.

170. Compounding the problem, it is also clear that the recent financial performance of enterprises does not provide a good guide to the longer-run potential of individual branches and enterprises under normalized trading conditions. This should be born in mind when formulating an enterprise reform strategy and a restructuring policy.

G. Between Plan and Market

171. In terms of their:

- i) ownership and supervisory arrangements,
- ii) relationships with financial institutions, and
- iii) input and output transactions,

Armenia's enterprise sector is in limbo between plan and market, with predictable results: industry functions largely as before, though with less formalized controls. Limbo gives enterprise managers excessive freedom in some respects, because neither plan nor market exerts adequate discipline on the enterprise. On the other hand there is still an important component of state intervention, in particular through the use of state orders to supply other FSU states and export quotas to assure domestic supplies. While such interventions remain pervasive and the structure of control is basically unchanged, full privatization and enterprise autonomy is problematic and competition is inhibited.

172. Corporate Control: Ministries, Managers and Workers. Ministries appoint the managers of all but the largest enterprises; the latter are appointed directly by the government. The Ministries monitor managers (for example, the Ministry of Heavy Industry recently evaluated 50 of its managers,

^{45/} Monetary policy in the ruble zone has not been tight in the sense of imposing high real interest rates but the sharp contraction in real ruble deposits has resulted in an extremely tight credit rationing policy partly offset by the rise in arrears.

shifting one or two as a result) but this appears to be a loose process. The financial information that managers are obliged to give to their ministries is neither adequate nor sufficiently timely to permit a close watch on their operations. The statistical office requires at least three months to begin to analyze information received from the enterprises.⁴⁶ Ministries are developing systems of management contracts for their firms and may lease out enterprises, but only with the agreement of the workforce. Ministries distribute state orders among their enterprises. They also coordinate the state trading arrangements between Armenian enterprises and their clients in other republics. They act as intermediaries between government and the enterprises, and sometimes intervene in enterprise dealings with banks or request the government to assist ailing firms. Some have technical institutes, such as the Ministry of Light Industry which also provides information on new fashions to its textile and garment enterprises.

173. All Ministries, it appears, have founded banks, in association with their enterprises, or are in the process of doing so. Some have other commercial interests, including shops and nascent insurance companies. Once an administrative arm of government, the Ministries are setting themselves up to become holding companies or independent concerns as privatization proceeds. Many factories are organized into conglomerates or associations, which either are horizontal (for example, the shoe conglomerate Masys) or vertically integrate a production chain. Some large conglomerates include factories producing a wide range of unrelated products (for example, Armelektroapparat). It is common for such conglomerates to be headed by supervising ministries. The rate of entry of new state firms is very low, only some 27 having been established in the whole of the 1980s.

174. Even with an open trade policy, this structure of industrial organization, inherited from the previous regime of partly-planned communism, is not conducive to competition and easy entry. The concentration of regulatory, financial, service and ownership roles within individual ministries is problematic. Elsewhere, ministries have opposed privatization, recognizing it as undermining their role, or have sought to preserve their status in various ways that inhibit sectoral adjustment and competition. A strong ministerial structure will also inhibit new entry (including through "closed shop" banking) and it may also inhibit the process of exit needed for dynamic reconstruction. The process of industrial reform should therefore involve a substantial weakening of the conglomerates and associations, as well as a change in the role of the ministries, to create an enterprise sector that is more dynamic, flexible and capable of responding to market pressures.

175. However, some of the financial, service and marketing functions performed by ministries and associations are normally internalized within firms in market economies. It will take time for Armenian firms to acquire these skills, and this will need to be taken into account when designing the delinking process.

176. It is important to begin separating out the several roles now played by the ministries and associations. Some of their functions (marketing expertise and procurement of inputs) could be provided to firms on a contractual basis. Others (such as financial management) should be strengthened at the level of the enterprise and removed from ministerial control. Proper arrangements need to be made for the oversight of enterprise managers for those enterprises not yet privatized. This should involve a supervisory board and well-structured management contracts. And, as in market economies, the function of industrial regulation should be performed by budgetary units of the government.

^{46/} For comparison, the information lag in Poland for key variables is about two weeks.

177. The demise of works councils and the end of the experiment of worker-elected management have drawn a sharper line between managers and their workers. The latter still exert considerable influence through trade union organizations. Except for the need to fulfill state orders, managers have considerable autonomy. They can set prices and pay levels and decide on the use of after-tax profits. They can initiate new investment projects (which at present would have to be funded mostly out of retained earnings). They are free to seek new markets. At least some of the firms have familiarity with world market conditions, and are exploring opportunities abroad.

178. Enterprise visits suggest that pay differentials have widened in 1992, within individual firms and, to a greater extent, between firms according to their capital intensity, their degree of monopoly power and the price they can obtain for their output. Employees in some firms receive on average up to R 10,000 per month if not working short-time; in others, R 1,000 is more typical. Pay in the enterprise sector appears to have risen considerably relative to that in the government sector, and those depending on the budget for income, such as pensioners who receive R 350 per month, and teachers (about R 600 per month) fare worst of all. To some extent, higher pay in some enterprises can be (and is) attributed to difficult or environmentally dangerous working conditions, but jobs in such firms are reported to be in excess demand. Even within the state sector, there therefore appears to have been a widening of differentials according to the ability to capture rents. This represents a continuation and deepening of the process identified above as prevailing in 1991, and raises the prospect of destructive rounds of catch-up wage bargaining.⁴⁷

179. Markets versus State Orders. State orders presently account for up to 90% of the output of certain enterprises and for over half of output for many others. They appear to be lower in light industry. The overall share of state orders in industrial output may be on the order of 50%. In principle, state orders set quantities not prices. However it is clear that in the case of goods being bartered for strategic supplies (for example, electric motors for gas from Turkmenistan) the producing enterprise cannot refuse to fulfil the order and may do so at a price that is somewhat lower than that which could be obtained on the free market.

180. By law, ministries are obliged to supply enterprises with inputs needed to complete state orders. In practice, however, they have been unable to do so, and the enterprises have been forced to do their own sourcing. Although state orders represent an assured market for the enterprises, ministries have also not always been able to guarantee payments from the purchasers to the producing firm, and some firms have experienced losses on this account.

181. Because of the liberalization of input procurement and the possibility of negotiated prices, the state order system is less of a barrier to market relationships than it appears at first sight. However, the system will seriously impede further progress to the market economy. To the extent that state orders substitute for enterprises' own efforts to develop markets, they reduce the incentive to develop marketing skills and upgrade product quality. This is especially serious considering the desperate need to expand exports outside the FSU. Many Armenian enterprises appear to have export potential, but they will not

47/ Miners' pay levels (as of mid-1992 as high as R 30,000 in Russia) were sometimes mentioned by managers as justifying higher wages in Armenian firms.

be able to develop this if most of their output is subject to compulsory state orders.⁴⁸ Another problem is that the monopolistic enterprises that produce strategic commodities which must be bartered for essential food and fuel (according to the desires of Armenia's trading partners) cannot be privatized. Indeed, they cannot be given managerial autonomy, since they would then be able to hold the government hostage.

182. It is therefore important that the system of compulsory state orders be phased out as rapidly as is consistent with Armenia's economic security and be changed towards a system of voluntary long-term contractual arrangements.

H. Enterprise Reform: Policy Recommendations

(i) Promote Competition. At present, there is little competition within Armenian industry. This reflects several factors, including the continued role of state orders, the large size of enterprises and the inclusion of many factories within large vertical or horizontal conglomerates or associations, frequently headed by a supervisory ministry. Increasing competition is a vital part of enterprise reform. State orders should be reduced as fast as compatible with the country's economic security and trade policy be as open as possible taking into account the constraints posed by membership in the ruble zone. In this regard, the liberalization of foreign exchange retention from exporting sends an important signal to the enterprise sector.

(ii) Take Stock of Industrial Assets. Current financial performance is not likely to provide a good guide to the future potential of enterprises, and this situation will not change until the economic environment is regularized. In the meantime, the government will be faced with difficult decisions, both for social reasons and because it may be desirable to preserve a limited set of enterprises that appear particularly valuable as future going concerns but that otherwise would be liquidated. To help allocate its very scarce resources, government will need to develop a framework for setting priorities for its social and industrial policies and to classify enterprises into several groups: strategic, open for foreign participation, enterprises that should be temporarily "mothballed" but not liquidated and problem enterprises with little prospect of longer-run viability. For such an exercise to be useful, it will have to take into account the tight limits on investment that will prevail for some time. The process of taking stock of industrial assets could be linked to the preparation of enterprise prospectuses, that would be used to help attract foreign partners.

(iii) Corporatize the Enterprises. Enterprises should be transformed into joint stock companies with boards of directors including, where appropriate, representatives from outside government (and in some cases from outside the country). The composition of the board would change with privatization, to reflect the new balance of ownership. Clear objectives, performance standards and management contracts would be needed to monitor the managers of enterprises not yet privatized. As far as possible, the process of corporatization should be managed so as to increase the number of separate enterprises, breaking up the large horizontally and vertically integrated conglomerates.

^{48/} Enterprises report that their exhibitions at trade fairs, for example, in Iran, have generated considerable interest in Armenian products in areas such as light industrial products, electrical machinery and components.

(iv) Clarify the Roles of the Ministries. The government has a crucial role to play in the process of industrial transformation and the Ministries are important institutions through which this must be effected. Their role should shift towards setting the regulatory framework for industrial activities and monitoring industrial performance. Ministries should not directly own banks or shops or shares in enterprises or head associations or concerns. They should be encouraged to shift their advisory and service functions onto a contractual basis and to spin them off into independent commercial ventures.

(v) Restructure the Ministries to Strengthen their Oversight Role. Accounting practices should be reviewed to enable useful information to be provided on a timely basis by the enterprises. Capacity to analyze this information should be strengthened within the oversight ministry. It would be desirable to consolidate the industrial ministries.

(vi) Encourage Foreign Investment. Foreign investment will have to play a key role in the regeneration of Armenia's industry and its refocussing towards non- FSU markets. Foreign investors bring far more than finance. Their main contribution will be the design, management and marketing skills needed to complement the existing production and research strengths of Armenia. There is no other way to rapidly acquire these vital skills. Despite the advantage of having a large Armenian diaspora,⁴⁹ the home market of a small country like Armenia offers little attraction to foreign investors. Foreign investment must therefore be seen as part of an export-oriented recovery strategy, targeting both FSU and other markets.

^{49/} The advantage of a diaspora is suggested by the experience of China, where the "open door" policy has led to a rapid growth in exports partly due to a dramatic rise in export-oriented foreign investment, overwhelmingly made by foreign Chinese investors.

ANNEX IV

PRIVATE SECTOR DEVELOPMENT

A. The Enabling Environment

183. The Government of Armenia has taken a number of steps to foster a favorable business environment for private enterprises. Noteworthy measures include:

- o Passage of a commercial code which allows private enterprises to determine freely their activities in any business not forbidden by law, make contracts with foreign or domestic workers, buyers and suppliers, receive and sell foreign currency, and bring suit against citizens, enterprises and state bodies. The law guarantees the protection of property against illegal seizure and the non-interference by state, local or other government or private bodies except as specified by law. It also allows for legal liquidation of enterprises by the owners, or, in the case of firms deemed bankrupt under the bankruptcy law (still pending), by a bankruptcy commission.
- o Equal treatment of public and private enterprises in retail trade, banking, importing and exporting.
- o Removal of all legal restrictions on private entry and competition in wholesale trade, and prohibition of wholesalers discriminating against private parties.

In addition the Government has developed regulations which outlaw or restrict private entry in only a few areas and require licenses for a limited range of activities, leaving most of the economy free for private activity.⁵⁰ The licensed activities are those that are usually controlled or licensed in most market economies, with some exceptions (quarrying or glue production, for example).⁵¹

184. Furthermore, Armenian private enterprises are free of some constraints that have proved to be important barriers to private entry in other countries. For example, access to commercial space is not a severe problem since the Government allows SOEs to lease space and, since many state enterprises are operating at very low capacity right now, ample space for production is available. (Office space, hotel space and storefronts are in shorter supply.) Moreover, discrimination and crowding out by state enterprises is less of an issue in Armenia than in other FSU republics. This is partly thanks to the Government's efforts to create a level playing field, but also because the problems of transport, scarcity and lack of bank liquidity have hit public and private sectors equally -- but private enterprises have proved more creative in finding ways around these problems. For example, a software manufacturer runs

^{50/} Activities involving endangered species, illegal drugs, prostitution, pornography, or racist propaganda are outlawed. Some areas are reserved for government (such as production and trade in guns, narcotics and explosives and radioactive materials, the operation of jails, and the like).

^{51/} The licensed activities are: air transport, railway transport, telecommunication, TV and radio, water reservoirs, mining, quarrying, production of goods from precious and semi precious metals and stones, hydroelectric power stations, production of chemical products, securities and exchange, lotteries, gambling establishments, insurance and auditing, banking, use of explosives, private police and security forces, medicines and medical facilities, production of cosmetics, production of food, cigarettes and alcohol.

a shop and a spaghetti and toy maker runs a casino to raise cash for their other businesses. Private producers reported buying airplanes and ships and establishing trade links through Iran and Georgia to get around the transport problems that have stopped sales by state enterprises. Thus, a public shoe manufacture that used to get its inputs and market its output entirely through state channels now relies on private traders to procure 85% of its raw materials and sell most of its production.

Constraints on Private Sector Development

185. Despite the Government's many and important measures to establish an enabling environment for the private sector, constraints still exist. Some of these constraints apply to all enterprises -- the blockade and other transport problems, inflation, the breakdown in the banking system, the erosion of purchasing power in the domestic market, the poor state of infrastructure, rising prices of raw materials and energy. But others are particularly burdensome on the private sector:

186. Licensing. It makes sense to license or at least certify most of the activities being licensed in Armenia. But the Government may wish to rely more on certification than presently planned, since certificates tend to be restricted to the main reason for a public interest in the activity and don't imply the limits on entry than licenses do. Thus, where the interest is public health (restaurants, food processing, cosmetics), environmental protection (minerals mining, quarrying), taxation and substance control (alcohol, cigarettes), a specific certificate makes more sense than a license. Where entry is necessary limited (air traffic, radio or TV), auctioning a license makes more sense. The administration of licenses is a serious problem in Armenia since it has become a total barrier to new entry. This is because most of the 20 ministries which issue licenses are themselves producers or are heavily influenced by their public enterprises, and prefer not to permit private competition. Thus, the Ministry of Air Transport operates the airport and the airline, and has been unwilling to license new airlines or award landing rights to foreign airlines. The answer is not to centralize licensing, since this could slow the process even further by creating a monstrous bureaucracy, but to shift from licensing to certification wherever possible and to separate the licensing or certifying agency from the producers. This will eventually happen through privatization, but in the meanwhile the Government may wish to transform those parts of the ministries which are responsible for issuing licenses or setting and certifying standards into autonomous agencies which are instructed to treat public and private enterprises equally.

187. Tax Administration. Neither the enterprises nor the tax administrators know the system well, and there is little information on the new rules. This is particularly problematic for small private enterprises, where the owner/entrepreneur must take time away from running his or her business to comply. The system of having the taxpaying businessman meet with one or several tax inspectors every year is not only cumbersome, it creates opportunities for corruption and will become very costly as the number of businesses in Armenia begin to mushroom. High taxes and cumbersome administration tend to encourage evasion; in contrast, countries such as Colombia have found that broadening the tax base, relying more on compliance than compulsion and stressing cross checking information rather than inspection can raise taxes and reduce the cost of tax administration. The Government is seeking expert advice on how to improve its tax administration, particularly the VAT.

188. Registration. The registration of new businesses is much improved; it used to take 6 to 7 months, now it takes 1 to 3 (although it is supposed to take no more than one). Nor is it a barrier to entry. In Armenia, as in the rest of the world, many private businesses may choose to operate informally. Nevertheless, the registration process is an anomaly in Armenia's liberal enabling

environment. Limited liability or joint stock companies must present their agreement or board decision to form a company, and evidence of a minimum capital subscription of R 50,000 to the municipality. The municipality decides whether to approve the activity and permit the company to operate. The municipalities are presently approving all legal businesses, but this could change, and the process seems inappropriate in a country which guarantees the right of businesses to operate in all areas not explicitly forbidden to them. It could be abused later and become a source of corruption. Instead, businesses should simply submit their documentation for information purposes to the municipality and, unless notified otherwise in 30 days, be considered certified to operate. It makes sense for the municipality to focus on full disclosure and evidence of fraud or criminal activity, not on the desirability of, for example, banks versus cafes.⁵²

189. Access to Municipal Space. Although access to commercial space is not a binding constraint now, this may change as production in state enterprises returns to more normal levels and as the private sector in Armenia continues to grow and mature. And for those who want to operate larger shops or hotels, good space is hard to find, especially in the urban centers. Even though the law determining what is municipal and what is central government property has not yet been passed, the municipalities are preventing private businesses from leasing prime urban commercial space. They also discriminate in favor of some kinds of business for no apparent good reason; for example, a bank can lease space in the center of the capital for a tiny fraction (less than 5% according to one report) of the rent charged a cafe. This problem will eventually be solved by the privatization process but in the interim government may wish to require municipalities to list any property with a potential commercial use as available for lease or for privatization, unless they can show good cause. They should also be subject to arbitration or civil suit if their rents are deemed unreasonable by private parties.

B. Privatization

190. The Government of Armenia is rightly intent on moving quickly on privatization in a way that will promote competition, expand investment, enhance productivity and create a sound basis for a market economy. Accordingly, 90% of agricultural land has already been privatized and a law was approved on privatization of small and large enterprises and unfinished construction sites by Parliament on July 29, 1992, while a law on privatization of housing is being prepared. The institutional structure for privatization is already in place with the establishment of the Privatization Commission, which will oversee the process, and the Privatization Board, which will implement it.

The Privatization Law.

191. The law on enterprise privatization covers Armenia's 10,000 small units not already sold under the presidential decree mentioned above, most of its 700 larger firms (defined as those with more than 25 employees in trade or 50 employees in manufacturing), and 4000 unfinished construction sites. The law calls for a program to be developed every year, spelling out which enterprises will be privatized or "de-statized" (leases, management contracts or joint ventures) and how the proceeds will be used. It

^{52/} It is appropriate to control decisions about the location of commercial, industrial and noncommercial activities through zoning laws, an area where Armenia's municipalities may need some technical assistance.

places no restrictions on foreign investors (although quick enactment of the draft law on foreign investment is needed if Armenia is to attract foreign buyers).

192. The law is a sound one, but it could be strengthened in several important ways:

- o **Use of Vouchers:** although the first draft law does not call for vouchers, the Government is planning to introduce them in response to strong political pressures. Vouchers can be a useful way to distribute shares widely where savings are thin, as in Armenia, but the experience of eastern Europe shows that vouchers schemes can be complex, costly and delay privatization. Equally important, widely distributed shares do not provide the strong stakeholder interests -- what Janos Kornei calls a "living breathing investor" needed to turn around troubled companies. To guard against these risks, the Government may wish to begin privatization at once, and not delay sales until the voucher scheme is put in place. Limiting vouchers to no more than one third the value of the privatization program will help protect revenues and make it more likely that a managing stakeholder can emerge. A good way to allow shares to concentrate in the hands of those who are most interested in buying and managing companies, is to give the vouchers a moderate face value (say 500 or 1000 rubles) and allow them to be freely traded as soon as they are issued. If vouchers are accepted for all privatization transactions, not just large enterprises, it will reduce the risk that the demand for vouchers is low and add to the pressure for rapid sales.
- o **Privatization Bonds and Accounts:** Privatization bonds are another way to encourage participation in the sale and can be used to liberate the purchasing power of blocked savings account in the savings bank. If the State Bank also allows people to open privatization accounts with their vouchers or bonds, this would ease trading and assure that the ruble shortage does not become a barrier to bond purchase.
- o **Preferences to Employees:** The law contemplates giving employees of privatizing enterprises the right to buy shares at a 30% discount on the initial asking price. There are several drawbacks to this idea: (a) the initial valuation may be far removed from the market value (giving some employees a windfall and leaving others disgruntled); (b) combined with vouchers the discount will further reduce government revenues from the sale; (c) the preference is unfair to employees in low value firms and those who are not employed in enterprises (teachers, doctors, etc); and (d) the preference makes it harder for shares to concentrate in the hands of stakeholders with a management interest. The Government is now considering an amendment to the law whereby existing managers and workers would be given 10%, 20% or 30% of the shares, depending on criteria for different types of firm. This will help preserve incentives to look after and increase the value of the assets.
- o **Leasing:** The draft law allows ministries freely to lease enterprises for a "reasonable" rent with an option to buy, and gives the right of first refusal to employees. Leasing can be an important way of putting a lot of assets under private management quickly, which could help stop further mismanagement and erosion of asset value. But leasing does not bring the revenues and investment that come after sales. And, although the law states that "leasing should not stand in the way of privatization", there is a strong danger that ministries will use leases to give preferences to themselves, friends or enterprise

managers and staff, or will rush into leases to avoid sales or "de-statization". Many ministries freely voice their opposition to the privatization of most of their enterprises. One way to prevent leasing from obstructing privatization is to require ministries -- and municipalities (see below) -- to present a total inventory of their firms and pinpoint which will be leased, sold, de-statized, or kept. It also makes sense for any lease with an option to buy or for more than two years to be approved by the Privatization Commission, since such leases have an impact on the privatization program. To prevent sweetheart deals or the demands for exorbitant rents as a way to prevent leasing, any party (private applicants for leases, employees, Government) should be able to complain about the rents charged. The Privatization Board, which is responsible for valuation, could then be empowered to adjudicate whether the rent was in fact "reasonable."

- o **Role of the Privatization Commission:** The law creates a Special Joint Commission of on which half the members are nominated by Parliament (but are not in general Parliamentarians) and half by the Government, and which reports to the Government. The Commission endorses the yearly program and oversees the process. Presently this Commission is an added bureaucratic layer, since its major decisions are not final, and it could become a bottleneck. In particular, it should not be empowered to determine privatization issues relating to specific enterprises. Rather, it should lay down general principles and could -- and should -- play a very important facilitating and monitoring role, if the law is revised to:
 - (a) give the Commission the final word on the privatization program, which would then be submitted to the Government. (Currently the program must be approved by Parliament. Instead Parliament should approve a negative list of enterprises which will not be privatized, and leave the decisions about when and how to the Commission.);
 - (b) place a limit on the time of its deliberations. The Privatization Board would then be responsible for implementing the privatization program.

- o **Role of Local Government:** The law calls for local governments to have their own yearly local programs approved by local legislatures. In Armenia, as in most socialist countries in transition, some of the local governments are resistant to reform and oppose privatization. Added to this, the draft law on the division of property between the central and local governments was rejected by Parliament, and it may be some time before the dispute over who owns what is resolved. Although the central authorities think that the amount owned by local governments may represent only 1 to 3% of the total assets in small privatization, the final proportion may end up being much higher. Moreover, the properties controlled by local governments are especially important for private sector development, since they include center city store fronts and other very desirable commercial sites. Delay and opposition at the local level could thus be a major barrier to change.

Given the small size and homogeneity of Armenia, the most sensible way to avoid these risks would be to privatize all property through a centralized process and reserve an ample amount of the proceeds for distribution to the local governments once the law on their property rights is passed. If this solution proves politically infeasible, a second best

alternative is for the law to empower the Privatization Commission to review progress at the local level and centralize the process if it is slower than planned. Local authorities could then be required to submit an inventory of the property they plan to lease or privatize (and show cause for the property they intend to retain) and a timetable for completion of all privatizations to the Privatization Commission. By publishing the inventory and timetable, the Government would increase public pressure on recalcitrant local authorities.

- o **Role of Ministries:** Sector Ministries everywhere tend to be unwilling participants in privatization. The privatization law requires Ministries to present yearly lists of enterprises for privatization and prepare the enterprises. To avoid the problems of recalcitrance experienced in other countries, the Ministries' lists should be subject to careful scrutiny. Enterprises should be asked to prepare their own financial and privatization plans. The Government may wish to develop its own inventory of enterprises with the help of foreign expertise if needed. It may also want to develop strict timetables to assure that the preparation process does not become a delaying tactic. Large investments to modernize and upgrade enterprises before sale should be viewed askance since, judging from experience in other countries, the cost of these investments are seldom recovered in the sale's price. This is not surprising: governments usually don't make the same choice as the market. Furthermore, these investments fly in the face of an important reason to privatize in the first place: to mobilize private capital for investment. Finally, since the purpose is to shrink the size of the public sector, ministries should not be allowed to buy shares in enterprises.
- o **Role of Banks:** The law allows the Government to sell "on the installment plan", giving buyers up to 4 years to pay. This means that it is both unnecessary and ill advised for banks to extend credit for the purchase of privatizing property. Bank loans in combination with debt to Government could lead to sales where buyers put in very little of their own funds. Such highly leveraged purchases are risky, and Armenia's banking system is presently ill equipped to assess risk. More importantly, they defeat a major objective of privatization -- the creation of private stakeholders who care about enterprise performance because they have their own equity at risk. In particular, banks should be forbidden to accept shares of enterprises being purchased as collateral for loans. Privatizations financed by a lot of Government and bank debt could inflate share values (which in turn inflates the amount that can be borrowed against share purchases, feeding further share price increases, and so on). If the new owners default and the share values collapse, banks could end up holding a lot of virtually worthless shares.
- o **The Role of Debt:** Sales on the installment plan will help the Government quickly privatize to a population currently short of cash, especially given the state of the banking system (see Annex 2). But it does leave the Government tied to the enterprises until the debt is paid. This has created problems for some countries when the indebted owners have used the threat of non-payment to try to influence Government policy to favor their enterprise, or when massive defaults went unpunished. To guard against these risks, Armenia would need to minimize the debt extended (buyers should not be automatically entitled to credit); administer the debt through a financial institution (one of the banks strengthened by technical assistance or partnership with a foreign bank might be able to handle this); and make provisions for default (assets have to be repossessed in cases of

non-payment or all buyers will begin to assume that they can default with impunity). To assure that the budget is not held hostage to privatization debtors seeking policy favors, it is prudent to separate the proceeds from general revenues and not to build up a dependency on these funds in the budget (see below).

Implementation

193. **The Yearly Program.** Implementation will be determined by a yearly program which specifies which enterprises will or will not be sold, how they will be sold (which will be marketed through international bidding, auction, sold as open shareholding companies, "de-statized" or otherwise privatized), and how each year's proceeds will be used. Any enterprises not sold in one year can be moved to the next year's program; offers for enterprises not in the program (or on the negative list) can be freely considered; and the Government can move from one method of sale to another without approval of Parliament.

194. **Choice of Enterprises.** Under the privatization program as currently drafted, the process will begin with the rapid sale of small enterprises, trading organizations, transport enterprises, unfinished construction sites and the smaller and medium sized firms in agro and light industry. They will then proceed to larger firms in these sectors and only then to heavy industry. Although the list has not yet been defined, the enterprises which the Government is likely not to sell in the short term are those 20 - 30 SOEs which are monopolies in the FSU and which have to fulfill state orders if Armenia is to receive critical inputs such as food and fuel, as well as infrastructure enterprises and some military suppliers and high technology producers. The Government has not ruled out the eventual privatization of these enterprises and has created the legal opportunity for new private enterprises to invest in activities that are presently state monopolies (note the decision to license hydroelectricity, rail transport and telecommunications). By assuring that this legal opportunity is a real one (see section on licensing above) the Government can put competitive pressure on some of these firms.

195. Regardless of the Government's decision about whether or when to privatize enterprises important for inter-republic trade, there are valuable assets that should be spun off from these firms. Many state enterprises control real estate, stockpiles of unused new equipment and assets unrelated to their main product that could be broken off and sold without harming the enterprises ability to fulfill its state order. (For example, one textile plant has stacks of uncrated new German equipment sitting in its yard and plans to turn part of its ample grounds into a fish pond to help feed its workers.) Often these assets are more valuable if sold separately. There are also large conglomerates and oversized concerns, some of which make little economic sense, which could function as or more efficiently -- and be more easily privatized -- as independent enterprises working through subcontracts. (For example, a new, only partly completed factory making programmable logic controllers will be the largest of its kind in the world, and, in the view of the foreign contractor, may be too large to sell. Several of its units, that making printed circuit boards, for example, could easily operate and be sold independently.) Right now there is a tendency for giant concerns to proliferate in the hopes of increasing barter, cross subsidizing troubled firms and avoiding privatization. Thus, the Ministry of Light Industry plans to turn the entire sector into a "concern". Such efforts to escape market realities may provide some short term relief for the enterprises, but they will eventually prove futile and may be quite costly to undo. A quick move to break up these giants will make them more amenable to privatization and send a signal to would be conglomerates that such moves are not the right way to proceed to a market economy.

196. **Foreign Buyers.** Foreign investment can play a key role in bringing not only capital, but also access to markets, new ideas and new technology and management skills. The sale of enterprises for foreign exchange could also help Armenia build up foreign exchange reserves as a hedge against the possible need to introduce its own currency should the ruble zone collapse -- as long as the Government can avoid spending these reserves. But there is strong competition for foreign investment in today's world market, and the experience of Eastern Europe and other countries shows that, far from the risk that foreigners will buy up the national assets, as some in Armenia fear, there is a strong risk that foreign investment will fall well below expectations. The uncertainties of Armenia's present business environment may harm its chances in the heavy competition for foreign investors. Working in Armenia's favor are its commitment to privatization, its equal treatment of the foreign investor, its legislative protection of property rights and -- an important plus -- its willingness to privatize land. Moreover, Armenia has companies that should be attractive to many foreign investors, such as the brandy factory or some of the high technology industries. Foreign experts can help the Government identify and market those enterprises that are best suited for international sales.

197. **Stemming Brain Drain.** One important competitive advantage of Armenia's industry is its strong research and technical skills. But many of its research institutes are attached to defense industries dependent on the USSR market that are not operating or barely operating. Most research institutes are reported to have shut down completely and their staff appear not to be receiving pay, or even unemployment insurance (because they refuse to accept the lower skilled jobs offered by the unemployment agency). Some have argued that the uncertain future of the defense industries if they are put into the privatization program may prompt many technicians to leave Armenia. It is important to try to create circumstances that reduce the risk of such a brain drain, but the answer is not to exempt the high tech industries from privatization. It is market circumstances, not ownership, that is responsible for that sector's problems. Private owners may eventually help these industries adapt to new markets, but in the meantime the situation argues for delinking these institutes from the fate of one enterprise, and helping the employees of the research institutes to privatize themselves into professional partnerships that can market their services abroad as well as domestically. (Other professionals (such as architects, computer software specialists, technicians) should also be encouraged to break off from enterprises and form their own firms.) These professional associations will need some support in learning marketing, accounting, and finance if they are to operate as freestanding entities.

198. **The Use of the Proceeds.** The proceeds from privatization may be well below expectations and, judging from the budget, may already be over committed for the first year. One reason why expectations may be wrong is that they haven't taken into account the fact that vouchers and preferential treatment of employees will reduce proceeds, while sales for debt will reduce cash in hand. Expectations also tend to be optimistic about the value of assets. The experience of other countries shows that the market value may be well below book value or even accounting values which try to take into account the enterprise's condition and prospects. For example, an aluminum plant in Costa Rica was put up for sale at its book value of \$52 million. There were no takers at that price so the company was revalued on the basis of a comparable company in Venezuela at \$7 million; still there were no buyers and the plant finally sold for a token price. There are ways to maximize the proceeds of the sales (such as selling monopolies with protection against competition or giving special concessions and tax treatment), but many of these are at the expense of economic efficiency and may reduce what the Government gets in the long run in tax revenues.

199. The proceeds from privatizing an asset are one time revenues. Many countries have found themselves in budget difficulties when they used these proceeds to launch programs with recurrent

costs that they could not fund once the proceeds were gone. For that reason Armenia would be better advised to use the funds to repay government debt, in particular the debt owed to depositors of the Savings Bank. Since the Bank has over 3 million small blocked savings accounts (see Annex 2) this debt repayment would help add to the social safety net, as well as restoring people's confidence in the banking system. Foreign exchange earned through privatization could be saved as reserves against the eventuality of any change in currency. To ensure that privatization revenues do not jack up expenditures beyond what the Government can afford in the long run, proceeds should be kept in a property fund rather than treated as general revenues.

200. **Institutional Strengthening:** The design of the yearly program is the duty of the Government and the Privatization Commission, while the Privatization Board is responsible for valuation. Once the yearly program is decided, its implementation is the responsibility of the Privatization Agency. The Board has some 77 staff who are already experienced in selling small firms. Nevertheless, the Board will face a monumental task in selling Armenia's larger firms even if the process takes (as the Board's staff predict) 8 to 10 years. All of the institutional actors need expert assistance: the Government and Commission in categorizing enterprises and selection sales methods, the Board in valuation of the high value properties, in designing and implementing major sales as well as the voucher and bond procedures, and in monitoring completed sales. Workshops and seminars with participants from the Privatization Agency, Parliament, Government, sector ministries, enterprise managers and the press would help increase understanding of the issues and how other countries have dealt with some of the problems Armenia now faces.

C. The Voucher Scheme

Vouchers and Repayment of Public Debt in the Privatization Program

201. This note suggests a procedure for operating a voucher scheme for selling state property, partly for vouchers, and integrating this with paying off public debt through the issue of special Certificates to deposit holders in Sperbank. By the end of 1991 blocked Sperbank deposits will represent on the order of 10% of GDP.

202. **Certificates.** Blocked accounts are separated from any other, new, savings accounts. State and commercial banks are authorized to open a new type of account, the Privatization Account, to enable companies and individuals to deposit large numbers of certificates and vouchers. These may be opened by individuals or by registered companies.

203. Each six months savings bank depositors may use their blocked funds to purchase a Privatization Certificate from their blocked accounts, for some specified value. These may be freely sold and transferred, and deposited in the Privatization Accounts, with an initial minimum deposit of, say, 500 Certificates. The Certificates can be valid for, say, one year. Certificates and Privatization Account balances are valid only for buying privatized assets.

204. **Vouchers.** Each Sperbank office can also issue privatization vouchers on the presentation of a national identity document which is then stamped to prevent re-issue of vouchers. The vouchers have a face value, are freely transferable, and are valid for one year. They are therefore very much like

the privatization Certificates. They should be issued in modest amounts. They can also trade on private markets and also be deposited in Privatization Accounts, with an initial minimum deposit.

205. Substantial consolidation of vouchers and certificates would be expected (most families would prefer to receive money), and the Privatization Accounts are designed to facilitate this. So is the issuing of Certificates and vouchers with a face value, rather than with some number of points. Naturally, they will not trade at face value on the secondary market, but if they are not over-issued and if the Government puts attractive properties on the market, they should be an useful asset for those interested in properties to buy, and they could trade on the new exchanges that are beginning to appear. (The alternative of a "points" voucher is appealing because of the danger that over-issue of the vouchers could cause secondary market prices to decline - no-one knows exactly the value of property to be sold, but this would complicate resale and bidding).

206. Payment for privatized properties can be made in money (cash and bank deposits), vouchers, certificates and privatization account balances. Privatization account balances may also be transferred between accounts to aid further consolidation.

207. For several reasons this procedure seems to be preferable to selling properties for vouchers and money and using the proceeds to repay depositors in Sperbank.

- 1) It keeps receipts out of the hands of the Government's hands and so reduces the opportunity to divert them to other purposes.
- 2) It boosts the buying power of the population and so will result in higher prices and more competitive auctions.
- 3) It will liquify the blocked funds more quickly, and give depositors more choice.
- 4) It offers an important role for Sperbank, which must be rebuilt into a viable savings bank.
- 5) It makes clearer the tradeoff between issuing vouchers in large quantities and repaying Sperbank depositors rapidly: about 80% of households have Sperbank accounts and the overissue of vouchers will cause the secondary market price of vouchers and certificates to fall. This may blunt the political pressure for the issue of large amounts of vouchers: in a sense, vouchers and certificates are substitutes and the more there is of one the less there can be of the other (the property can either be "given to the people" or it can be "sold to pay off Sperbank depositors"). Indeed, if the government really intends to give priority to repaying Sperbank depositors, it would be better to have this constitute the first phase of the voucher scheme. It will also increase pressure on the government to sell desirable properties rapidly, if people see that their vouchers and certificates are worthless on the secondary market.

208. One issue that arises with vouchers and certificates is their inflationary impact: they may circulate as money and the process of consolidation may raise the average propensity to consume because the sellers of the vouchers are poorer than the buyers. However, while Armenia is in the ruble zone, any inflationary impact from the temporary monetization of the certificates and vouchers should be small.

ANNEX V

LEGAL FRAMEWORK IN THE REPUBLIC OF ARMENIA

A. Introduction

209. The Government of Armenia is moving rapidly to promote the growth of an efficient market economy and the private sector. One of the major tasks it faces is the development of a legal framework that can replace previous administrative controls and steer the private market in an efficient direction. This annex describes the current legal framework in Armenia in several areas - including constitutional, property, company, anti-monopoly, bankruptcy, foreign investment, and contract law. Some aspects of the institutional framework are also addressed.

210. Armenia inherited the same problems as other former Soviet republics, after the disintegration of the Soviet Union. The federal structure of the Soviet Union over the past 70 years has given limited lawmaking powers to the individual republics and the issue of federal-republic legal relations had always been central. In order to deal efficiently with the numerous legal problems that the transition to a market economy involves, Armenia has to develop substantial skills and experience rather quickly. In this respect, the Government of the Republic of Armenia needs assistance in strengthening its capacities to perform the tremendous task of creating a new legal framework for the market economy.

B. Constitutional Law

211. The governing constitution of the Republic of Armenia is the Constitution of 1978 as amended in 1990 and 1991. The most recent changes have been made in 1991 through the adoption of the Constitutional Law of the Republic of Armenia, dated September 25, 1991, and the Law of the Supreme Soviet, dated November 15, 1991.

The President.

212. The Constitutional Law of 1991 introduced the presidency. The President is elected by popular vote for a five year term. The President is the head of the executive branch and represents the Republic of Armenia outside the country. The President appoints the senior echelons of the Government, including the positions of Prime Minister, Deputy Prime Minister, Ministers and Heads of major Departments, by decree, subject, in the most senior cases, to ratification by the Supreme Soviet of the Republic of Armenia.

213. The President is subject to impeachment by a two-thirds majority vote. The activities of any other member of the executive may be reviewed by the Supreme Soviet and, unless the President personally intervenes in support of retaining the individual (in which case a two-thirds majority vote of the Supreme Soviet is required), this official may be removed from office by a simple majority vote of the Supreme Soviet. In the event of the President's or Vice-president's inability to exercise their powers, the Chairman of the Supreme Soviet will replace them.

214. The President formally introduces legislative proposals to the Supreme Soviet on behalf of the executive branch of Government. The President issues decrees and adopts ordinances. The Supreme Soviet enjoys the right to appeal to the Constitutional Court and, subsequently, to annul

presidential decrees or ordinances which contradict to the Constitution or laws of the Republic of Armenia. The President's decisions to use the armed forces, to proclaim a state of war or a state of emergency are subject to the ratification by the Parliament within 24 hours.

215. The President submits annual reports to the Supreme Soviet on political and economic policy. The Supreme Soviet also has a right to call for special sessions to hear the President's reports on particular subjects.

The Supreme Soviet.

216. This is the senior legislative body in Armenia. The Supreme Soviet is a standing body, holding its sessions twice yearly - from the beginning of February to the end of July and from early September to the end of December. Members, called 'deputies', are elected by popular vote on a regional basis for a five year term.

217. The right of legislative initiative in the Supreme Soviet belongs to the Presidium and the Standing Committees of the Supreme Soviet, the deputies, the President, the Constitutional Court, the Supreme Court, the General Prosecutor and the State Arbiter of the Republic of Armenia. Although not members of the Supreme Soviet, the President and his most senior officials have the right to appear before the Supreme Soviet to present the executive's legislative proposals. All legislative proposals from the President (i.e. the executive) first enter the appropriate Standing Committee for what is termed "first reading". If the bill is passed by the Committee, it is then printed and sent to the floor of the Supreme Soviet to be debated in accordance with the agenda the Presidium of the Supreme Soviet establishes at the outset of each legislative session and which it may amend from time to time.

218. Votes are taken by simple majority and bills passed by the Supreme Soviet are to be signed into law by the President within two weeks. The President may exercise his right of veto by sending the bill back to the Supreme Soviet. The Supreme Soviet can then overcome the presidential veto by a two-thirds majority vote in which case the President or, failing him, the Chairman of the Presidium of the Supreme Soviet signs the bill in question into law within five days.

219. According to the Law on Supreme Soviet, the Supreme Soviet shall ratify and denounce international treaties of the Republic of Armenia in cases provided by law, as well as exercise control over conclusion of international loan agreements.

The Government.

220. While the idea of a need for a "separation of powers" has been widely accepted and incorporated into the Constitutional Law, only the first steps toward defining and implementing such a separation have been made. The continuing lack of clear boundaries between the powers of various bodies may give rise to substantial uncertainty and problems even in the absence of serious political turmoil.

221. The Government consists of: the Council of Ministers, sectoral ministries and committees and other departments. Recently the Department of Economic Reform and the Privatization Board have been created within the Government. The Department of Economic Reform is entrusted with the

formulation and drafting of all important legislative reform proposals in the macro-economic field, including proposals regarding private sector development and privatization. It reports directly to the Minister of the Economy.

C. Judicial Institutions

Court system.

222. The judicial system of the Republic of Armenia has a pyramid structure which culminates at the republican Supreme Court. The lower courts are arranged according to administrative units: since Armenia does not have autonomous regions or oblasts, the lower courts exist at the level of cities and districts.

223. The district or city court is a court of general jurisdiction, which hears both civil and criminal cases, although the case load within the court may be divided among divisions which specialize in cases of particular types (family law cases, housing disputes, etc.). Judges of the district and city courts are elected by citizens of the corresponding district or city.

224. The Supreme Court exercises general supervision over all the other courts through the exercise of its appellate and supervisory jurisdictions. In some instances, the Supreme Court also acts as a court of first instance. The Court is divided into a civil chamber, a criminal chamber and a presidium. In both civil and criminal appeals from local courts, the Supreme Court may: reverse the decision at first instance; confirm the decision at first instance, with or without amendment; or send the matter back to the court of first instance to be re-tried, in whole or in part. The local courts are also supervised by the Ministry of Justice.

225. In criminal matters, in the event of acquittal at trial, the prosecutor has an automatic right of appeal to the Supreme Court. If, however, a conviction is recorded at trial, the defense is without any such automatic right. If the acquittal of the accused is confirmed by the Supreme Court, the prosecution, but not the accused, has an automatic right of appeal to the presidium as the final court of appeal.

226. The Chairman of the Supreme Court is elected by the Supreme Soviet for a ten year term, as are the other members of the Court.

227. The jurisdiction of courts in Armenia with respect to commercial matters has traditionally been rather limited. The civil court has had jurisdiction over economic matters involving individuals, those involving *kolkhozes* (collective farms), and cases involving very small sums of money. The large bulk of commercial cases – disputes between enterprises, organizations and other juridical persons involving a planned or compulsory element – have been under compulsory jurisdiction of the state arbitration court (*arbitrazh*) rather than the courts. Thus, the civil courts have very limited experience of commercial disputes, and almost no experience with the resolution of complex business matters.

State Arbitration Court.

228. Until recently, the arbitration courts functioned as a separate dispute resolution and general oversight system with exclusive jurisdiction over most economic disputes between most enterprises, organizations and institutions.

229. From the standpoint of their jurisdiction, there are two types of arbitration courts (**arbitrazh**): the state arbitrazh and the "departmental" arbitrazh. Departmental arbitrazh takes care of disputes that arise between entities which are both under subordination to the same administrative body (ministry or State Committee), while state arbitrazh covers the remaining disputes under arbitrazh jurisdiction. Although there are two branches the system is a unitary one, with state arbitrazh carrying responsibilities for overseeing the activities of departmental arbitrazh. Like the regular courts of arbitration culminate in one supreme court, i.e. the State Arbitrazh of the Republic of Armenia.

230. Arbiters are required to be aware of and to remedy legal violations which may be occurring in enterprises with which they have contact, regardless of whether those violations are related to the subject of the dispute, and arbitration proceedings may be instituted by arbitration court authorities *sua sponte* if an arbiter believes that violations of law are occurring. The Arbitrazh has a right to issue notifications to enterprises or to state enforcement authorities concerning violations of law. These notifications must be returned within a stated period of time with a description of remedial measures taken. Arbiters also have the power to issue specific binding instructions to economic actors concerning the elimination of violations of law. Finally, arbitrazh organs are expected to draft normative acts which elaborate on the procedures that enterprises are required to follow in economic activities which have a mandatory nature, and to issue interpretations of economic law to ministries and departments. As for the arbitration procedure, there are strict time limits placed on the presentation of responses and documentary evidence, and the rules of procedure are simplified and actual proceedings informal in order to facilitate efficient resolution of disputes.

231. The role to be played by state arbitrazh in the new market economy is not entirely clear. As mentioned above, general civil code provisions give jurisdiction over disputes not involving mandatory elements to either/both arbitrazh and the courts. Yet the traditions and procedures of these bodies are quite different and the treatment of a single dispute is likely to vary substantially between the two bodies. Arbitrazh bodies traditionally examined disputes in which the actions of the parties are heavily determined by legal requirements, with a primary goal being the enforcement of these requirements. It is not clear that this body can be quickly or easily transformed into an "economic court" which will serve simply to examine and resolve disputes presented to it by essentially free economic actors. On the other hand, arbitrazh bodies are the only bodies that have any experience at all with large commercial disputes and any knowledge about the types of conditions and the traditional contractual and economic relationships that have existed in Soviet industry.

D. Property Law

232. As in other former Soviet Republics, ownership law in Armenia was until recently, strictly divided between socialist ownership and personal ownership. Socialist ownership, in turn, included state ownership and collective ownership (of cooperatives and collective farms).

233. Under personal ownership, a separate category included primarily the personal and household belongings of individuals which were to be derived principally from the labor savings of individuals and were not to serve as the basis for any business or economic (profitable) activities.

234. The Property Law enacted in 1991 has introduced the concept of private property, although the term "private" was intentionally replaced by "collective". The law recognizes three forms of property: state property, "collective" and personal property (of individuals). Each of these varieties of ownership enjoys equal protection by the law. The law states that all forms of property will be equally protected - a substantial step in terms of the history of Soviet jurisprudence - and provides generally for the right of both owner and legitimate users to protection of their property or use rights. The law does not, however, mention any requirement of, or case for, registration of property ownership.

235. "*Collective ownership*" - is a category of ownership defined neither in the existing civil code nor in the law itself. A number of the types of ownership placed in this new category are the ownership rights of new kinds of business entities.

236. While the lack of a general civil law definition of collective property does not prevent the use of owned property by the relevant business entities, it does cause substantial uncertainty concerning the precise boundaries of their ownership rights and the rights of individuals and organizations who are, in turn, the owners of the business entities and the managers of their property. This uncertainty is particularly acute with respect to those types of business entity which have not been defined in other laws.

237. At the present time, liens on property or pledges are regulated by civil code provisions. Such provisions generally allow the pledge of property only if it is owned outright or is in the operative management of the party making the pledge. The restrictions are placed on the pledge of productive (fixed) assets owned by the state. A draft law on lien, however, is currently being considered, which redefines the conditions of an enforceable lien or pledge, the types of property rights that may be the subject of a pledge, and the procedures for affecting a foreclosure.

238. In order for property to be used effectively as security, whether under the old or new provisions of the law, technical means must be provided by which legal requirements can be met and rights sustained. Particular difficulty will be caused by the absence of a coherent system for registration of property ownership and of liens and encumbrances on property.

Land Law.

239. The land has always been owned by the state. Economic enterprises and agricultural cooperatives were to be given access to land for "social use" only. Moreover, land, particularly agricultural land, could only be used for the purpose for which it was given. Land could not be the subject of transactions such as conveyance, rent, or mortgage. The only transaction allowed by law was exchange with other lands, subject to the permission of state authorities.

240. The Land Law, passed in February 1991, defines various categories of land and gives broad outlines for their disposition.

241. The Law recognizes three forms of ownership of land: (i) ownership by citizens of the Republic of Armenia; (ii) collective ownership; and (iii) state ownership. The land can be granted to citizens of the Republic of Armenia exclusively for the purposes of: (i) operating peasant and collective-peasant farms; and (ii) construction of a residential building. Collective ownership of land may arise through the voluntary combination of the plots of land of individual owners or by land being granted for collective ownership.

242. The Law does not put limits on land holdings of individuals. It does place, however, two important limitations on land ownership: first, the Land Law puts strict controls on the conversion of agricultural land to other uses; and second, it provides that the owner can realize his right to sell the plots of land only three years after he pays off the total cost of the land.

243. Local authorities bear the primary responsibility for granting of land for ownership and use. The right to ownership and permanent use of land is certified by an appropriate state deed, which is issued by the executive committee of the appropriate local soviet of people's deputies. The state deed indicates the owner, the purpose and conditions of the grant and use of the land, the name, location, dimensions, and boundaries of the plot of land, its register assessment, and other information. The Law provides for creating the State Land Register, although not specifying the details. The procedures for keeping the State Land Register are to be established by the Government of the Republic of Armenia.

244. Disposition of urban and other categories of land is also covered in the law.

E. Company Law

245. Before fundamental economic reforms started, state-owned enterprises ("socialist enterprises") constituted the dominant type of economic organization. The other forms included cooperatives, collective farms (kolkhozes) and state farms (sovkhoses).

246. Socialist enterprises were based on state property and their production activities were strictly determined by state plans. Each enterprise was managed by a director appointed by the governmental authorities who was responsible, among other things, for the fulfillment of the planned tasks of the enterprise.

247. A new Law on Enterprises and Entrepreneurial Activity was adopted on March 14, 1992. The law is designed to create substantial new business opportunities for different types of economic organization. The law defines the basic principles of legal regime for entrepreneurial activity, while specific legislation concerning the formation and activities of particular types of enterprises (e.g. joint-stock companies) will govern the activities of these enterprises.

248. In the meantime, temporary regulations issued by the Armenian Government are applicable to joint-stock companies and economic partnership.

249. The new Law provides enterprises with a broad scope of rights, which include the right to manage their property; to operate financial assets; to borrow funds, to obtain bank and commercial credits in the Republic of Armenia and other states including credits in foreign currency; to plan their business activity independently; to set prices of products, services rendered, and jobs performed; to conduct import-export operations, and to protect their rights in the court or arbitration court.

250. The Law also guarantees that an enterprise's rights shall be properly secured by the Government, particularly, from unauthorized intervention of governmental bodies in the enterprise's activity. The latter has the right to seek for compensation from the governmental body which caused the damage.

251. Although the law provides a radical step toward liberalization of the rules and planning claims that had hindered enterprise initiative, it still contains a number of requirements and restrictions that may hamper the movement of enterprises toward more independent and efficient behavior. Thus, enterprises of all legal organizational categories are required to establish reserve funds at the rate determined by the Government. Enterprises also have to follow the procedures established by state administrative agencies for conducting accounting operations; for calculating depreciation, production cost, and its elements funds which may be committed to remuneration of labor and other calculations.

252. Some provisions regarding state orders,⁵³ the enterprise control committee, and state inspections of the legality of an enterprise's activity, can also be considered restrictive and may cause unjustified interference of governmental authorities with an enterprise's activity, unless the powers of governmental agencies are determined more carefully.

253. These restrictions, however, should be viewed in the context of the transition period and should be relaxed as the appropriate market institutions are developed.

254. All enterprises operating within the territory of the Republic of Armenia are subject to state registration. The law does not specify what governmental body shall be in charge of registration. The authorized governmental agency must register an enterprise within 30 days after application and foundation documents have been submitted. Some types of business activity are also subject to licensing.

255. Certain types of activities considered to be subject to state monopoly are: any activity connected to the military complex or national defense; production, transportation or utilization of explosive, radioactive or poisonous materials; narcotics; certain kinds of medical services; all operations with precious metals; and special communication services.

256. Permission to be involved in economic activity which is considered to be a state monopoly can be granted only by the Government of the Republic of Armenia.

257. State licensing of business enterprises or individual ventures involved in development of natural resources or other activities may, in exceptional cases, be conducted through competitive bidding.

258. Licensing of businesses engaged in making certain products (e.g., food and beverages, cigarettes, prescription drugs, cosmetics and perfumes) requires that certain quality assurance procedures be in place relating to experimentation, testing, and so on. In such cases a preliminary and limited license may be issued for the purpose of allowing a limited production sample for testing purposes. A

^{53/} Although the law states that the state order is set down in a contract concluded between the authorized state administrative agency and the enterprise, state enterprises may be obliged to accept state orders, but without consent of the enterprise it may not extend to all the products, jobs, and services of the enterprise aside from the strictly limited list.

license to engage in continuing activity shall be granted only after successful completion of any investigation and successful conclusion of the preliminary licensing period.

259. The law basically provides for all the types of company organization typical of a continental legal system. These include sole proprietorship, general partnership, the limited partnership, the limited liability company and joint-stock company. The law also covers previously developed business organizations, such as: cooperatives, collective peasant farms, state enterprises, economic associations, etc.

260. The law also defines the legal status of: small enterprises; "enterprises which operate with management contract"; lease-holding enterprises; "public service enterprises" which are not considered to be specific organizational-legal forms but have some additional characteristics.

261. The joint stock company is an important company form in all market economies and is likely to become important in Armenia in the future as state-owned enterprises are privatized. At present, however, the form is hardly used and almost all companies to date have been established as partnership or limited liability companies.

262. At least two founders are required to set up a joint-stock company. The law does not specify a minimum capital requirement for setting up a company (this is supposed to be addressed by the legislation governing different types of companies). A joint-stock company is referred to as open if the stock is distributed in the form of a public subscription and closed if the stock is distributed only among the founders.

263. Economic partnerships (general or limited) do not enjoy the status of legal entities. A general partner bears personal property liability to third persons for the obligations of the partnership, while, for a limited partner, liability is limited by the amount of his contribution to the capital of the partnership. In a limited partnership, there must be at least one general partner.

264. Cooperatives differ from companies and partnerships primarily in two ways: (i) personal labor participation is required from all members of the cooperative; and (ii) distribution of profits depends on labor participation rather than the property contribution of the members.

F. Anti-Monopoly Law

265. Anti-monopoly and/or fair competition, although not an initial focus of reform efforts, has been receiving an increasing amount of attention from legislators and policy makers in many former Soviet Republics. While drafts of anti-monopoly laws have been produced, there is still substantial confusion over the proper direction of policy and the precise nature of the functions to be fulfilled by the anti-monopoly enforcement body.

266. In Armenia, the draft Anti-Monopoly Law was prepared by the Department of Economic Reform. The abuse of dominant provision, cartel agreements, unfair competition, discrimination, and anti-competitive mergers are all prohibited under the Law. The Law also spells out the powers and functions of the Anti-Monopoly Agency (AMA).

267. The Law contains a broad definition of monopoly activities which covers:
- i. abuse of advantageous (dominant) positions by investors (such as creating inflation or causing an artificial deficit, the act of withdrawing merchandise from the market);
 - ii. entering into agreements between investors upon activities which might limit competition or jeopardize the interest of the consumer;
 - iii. prohibiting activities of Government agencies, which have a potential of limiting competition.
268. For the purposes of organizing the goods market, prevention and limitation of the monopoly activities, and eliminating unfair competition in the marketplace, the Anti-Monopoly Agency shall be set up. This Agency is granted the right to give mandatory instructions to investors as well as to governmental bodies to observe the law in the area of anti-monopoly, the right to abolish agreements which jeopardize the interests of the consumer, impose penalties on investors and their employees, penalize investors who have illegal incomes, and appeal to the courts or arbitration courts of the Republic of Armenia.
269. The actions of the Anti-Monopoly Agency can be appealed to the court or to the arbitration court.
270. The Law does not focus on merger control. Enterprises which have been broken up might seek to merge in order to strengthen their economic viability. The AMA needs to develop procedures for reviewing the mergers that will arise. In particular, criteria need to be developed to define the mergers which will need to be cleared by the AMA.
271. The Law should also specify more clearly how the AMA will be set up and its relationship with the executive.

G. Bankruptcy Law

272. In all likelihood, many Armenian enterprises will fail and have to be closed as the economy moves toward a free market. A well-functioning system of bankruptcy law and practice is therefore a critical part of the legal framework.
273. The liquidation and reorganization procedures are contained in the new Law on Enterprises and Entrepreneurial Activity and in the Civil Code.
274. The government has prepared a new modern Bankruptcy Law. The new draft is comprehensive and well-organized. It covers not only bankruptcy per se, but also reorganization under bankruptcy protection as well as the mutual agreement procedure.
275. Bankruptcy is defined as the steady inability of a debtor to satisfy claims imposed on him by creditors, which is associated with shortage of funds for three months from the start of an established period.

276. The Law does not specify within the jurisdiction of what courts bankruptcy cases shall be resolved. It refers to the "court of arbitration" or "special court". It is also unclear whether the parties (debtor and creditors) have a discretion to choose the court.

277. In terms of procedural regulations the draft Bankruptcy Law basically follows the Western model of bankruptcy codes. The bankruptcy proceedings consist of several stages:

- i. commencing a bankruptcy action -- a bankruptcy petition may be filed by both creditor and debtor (voluntary bankruptcy petition);
- ii. preliminary proceedings -- investigation of all submitted petitions, documents and evidences by court;
- iii. bankruptcy proceedings -- acknowledging the debtor to be a bankrupt and starting sale of his property;
- iv. liquidation or reorganization of the debtor.

278. From the instant the court renders a decision about declaring an enterprise a bankrupt and opening bankruptcy proceedings, the debtor is not permitted to transfer his property or cancel his obligations and all claims of a property or financial nature can be declared to the debtor from this time only within the framework of the bankruptcy proceedings.

279. The Law provides the debtor with some possibilities to prevent the bankruptcy proceedings in the preliminary stage: the debtor can submit a petition to terminate the bankruptcy action and to carry out rehabilitation within one month of the date on which the action was accepted for proceedings. The debtor can also appeal to creditors with a proposal for an amicable settlement which grants the debtor a deferment of payments and installment payments and deductions from debts. In both cases, it falls within the discretion of the court to decide whether to approve the settlement and terminate the bankruptcy proceedings.

280. The draft Law defines the status and powers of the Official Receiver, Meeting of Creditors, and Committee of Creditors.

281. Special provisions are established for bankruptcy actions involving state enterprises. In such cases participation of state agencies authorized by the state to manage the property of the debtor is required. When stock is sold in state enterprises as a process of reorganization or liquidation, the Committee on Administration of State Property (or its agencies) receives special powers from the Government for combining the role of representative of the owner and official receiver.

H. Foreign Investments

282. The opening up of foreign investment and trade possibilities are a vital component of the Armenian Government's economic reform program, both because of the importance of imported goods and equipment to the growth of competition in the market and because of the need for substantial amounts of investment funds.

283. The draft Law on Foreign Investment has been prepared by the Government and submitted to the Supreme Soviet for consideration. The draft law appears to provide foreign investors

with a favorable legal regime, and thus generally sends the right signal - that private investment with foreign participation is desired and welcome.

284. The draft law applies very broadly to any participation by a foreigner in the Armenian economy. Foreigners are allowed to set up branches or wholly-owned subsidiaries, as well as joint ventures with Armenian partners. These types of foreign investments are subject to the general rules and corporate forms set out in the Law on Enterprises and Entrepreneurial Activity, as discussed above. The other types of foreign investment activities may include purchase of share stock in enterprises, acquisition of property or property rights (e.g. to use land and other natural resources), granting of licenses or property rights (including intellectual property rights).

285. According to the draft law, foreign investors on the territory of Armenia enjoy the privileges accorded by either party to those of the most favored nations, provided, however, that Armenian investors are granted the same type of treatment in the respective countries. The exceptions from the principle of the "most favored nation" may be made by the Government in the following areas: air and railway transportation, banking and insurance activities, energy industry, customs activities, real estate, communications, use of land and other natural resources, exploitation of mineral resources, and operations with securities.

286. Enterprises with foreign investments are required to be registered with the "authorized state body" (the draft does not specify what governmental agency is responsible for registration). The registration procedure is similar to that established for newly created domestic enterprises. Enterprises whose volume of foreign investments exceeds one million US dollars (or an equivalent in other convertible currency) have to obtain a special permission for their activities.

287. While profits in convertible currency can always be repatriated by foreign investors without limit, the draft law limits the repatriation of investment proceeds by one year. The draft law does not specify a particular tax regime or special tax incentives for foreign investment.⁵⁴ The law, however, provides that property brought into the Republic of Armenia as the contribution of the foreign investor, or for production purposes, or by foreign workers at enterprise with foreign investments for their own needs is exempt from the imposition of customs duties.

288. The draft law also contains the standard provisions concerning guarantees provided to foreign investors against compulsory removal of their property and adequate compensation and indemnity for losses in case of nationalization or confiscation.

I. Contract Law

289. The legal framework for contracts is contained primarily in the Civil Code of the Republic of Armenia, adopted in 1964. The Civil Codes of the various former Soviet republics were

^{54/} Pursuant to the new law on Tax on Profits adopted on January 24, 1992, taxes imposed on enterprises with foreign investment exceeding 50 percent of statutory assets shall be reduced by the amount of 50 percent of total profit tax, and if the share of the foreign participant is between 30 and 50 percent of statutory assets, profit taxes shall be reduced by 30 percent. In addition, all newly established enterprises enjoy a tax holiday for the first two years of profitable operations.

based on the federal (All-Union) civil law provisions named USSR Fundamentals of the Civil Legislation. The basic principles of contract law were drawn from pre-Soviet European Civil Codes, and many of the principles are not inconsistent with a market economy. Thus these provisions include the principles governing offer and acceptance, joint and several liability, third party rights and obligations, rules on time and place of performance, consequences of non-performance or delayed performance, remedies including specific performance and/or damages, and termination.

290. However, the broad general principles have never applied directly to contracts between enterprises involved in the planning process. Thus, the principle of contractual freedom was in practice subordinated to the needs of the central plan which had the force of law. As a matter of fact, contracts among socialist enterprises (including collective farms) were treated differently from contracts among individuals and other parties. State enterprises, besides the rules of the Civil Code, were also subject to special legislation governing some types of contracts. For instance, contracts of sales (or supply) and transportation transactions were regulated primarily by the federal regulations setting up specific contractual terms for these types of transactions which essentially differed from the Civil Code provisions (choice of contractors prescribed by a state plan, fixed prices, strict liability for non-fulfillment, specific remedies, etc.). These regulations, and also the model contracts and planning orders, have served as a means of specific prescription of contract form and terms for most enterprises, essentially eliminating the need for the development of a more generalized contract law and practice that would guide the free formation of complex commercial relationships.

291. The Civil Code also covers quite a wide range of contracts, including sale, barter, construction, transportation (cargo and passengers), lease, loans, donations, manufacture and repair, insurance, agency and the others.

292. At present time, although central planning has been abolished and a variety of ownership has emerged, no radical changes have been made in the Civil Code in order to reflect these new realities. The Civil Code still formally distinguishes between contracts among individuals and contracts among socialist enterprises, but all current transactions are regulated by the general provisions applicable to individuals.

293. The Civil Code is currently being revised in order to create a comprehensive legal framework regulating commercial activity.

J. Conclusions and Recommendations

294. The transition in Armenia from a command to a market economy will require substantial changes in the legal and institutional framework governing economic activities in the republic. Sustainable development and, in particular, increased private sector development can only be achieved if an appropriate legal system is put in place. Such a system has to be based on objective rules, which are actually applied, and on functioning institutions, which ensure the proper application of such rules. The elements of objective rules and functioning institutions form the basic requirements for a stable business environment, indeed a modern state. Without them, any economic reform measures contemplated by Armenia are doomed to fail, private investments will not materialize and the transition towards a market economy will be in jeopardy.

295. The challenge for Armenia is to review and analyze the existing legal and institutional framework and to reform and adjust it in parallel to the political and economic reform measures already implemented or planned by the Government. Prioritizing and phasing in the necessary legal reforms would depend on the speed of the economic reforms; however, there are certain areas which should be addressed immediately since they are essential for any subsequent reform undertakings. These areas are noted below.

296. The instability of the constitutional situation which has led to a precarious balance of power among the various branches of government - legislative, executive, judiciary - as well as between the central government and the local administrative bodies should be remedied by adopting the new Constitution.

297. The property regime should be improved by establishing a general right of natural and juridical persons (including state entities) to own all types of property, with the exception of those specifically forbidden by law. This reformulation might eliminate the need to identify a special category of ownership - such as "collective ownership". If, however, the current characterization as "collective ownership" is to be retained, content will need to be given to the category immediately so that the property rights of those entities are clear. In this respect, certain adjustments in the Property Law will be required.

298. In the area of real estate, the creation of registration offices and corresponding procedures for identifying the legal titles of owners will be of great importance, as re-allocation of land and other property is still continuing in Armenia and numerous disputes might arise in the nearest future.

299. Some fairly immediate development of contract law will be needed in order to regulate normal market relations among a wide variety of economic actors. It is obvious that the wholesale revision of the Civil Code will require a substantial amount of time. In the meantime, quick actions in this sphere are required now. In this respect, current civil law provisions should be adapted to the new types of business relations. The provision of model contracts might also be of use in educating new business participants about the necessary form of content of an enforceable contract.

300. Investors, both domestic and foreign, need confidence in the enforceability of agreements. Armenia could enact the most modern commercial laws and regulations, but they will be of little practical value if there are no means of enforcing their provisions, or of efficiently and predictably resolving disputes about their meaning.

301. One important step would be the clarification of the relationship between state arbitration courts and civil (regular) courts in terms of solving property and commercial disputes. The Civil Procedure Code and other procedural regulations should be revised accordingly in order to provide certainty with respect to jurisdiction to decide a particular dispute, to the legal standards under which a body will decide, to the point at which a resolution has reached finality, and to enforceability of the resulting resolution.

302. In addition, substantial steps should be undertaken to provide training to judges and arbiters on the handling of complex commercial cases. The training activities can be carried out with the assistance of legal consultants and may include on-the-job training, overseas training and tuition, as well as conferences and seminars.

303. In the area of company law, the Law on Enterprises and Entrepreneurial Activity should be supported by regulations for various types of companies - joint stock companies, partnerships, economic associations, etc.
304. The supporting regulations should be also issued which would specifically deal with some administrative procedures, such as registration of new enterprises with state authorities, obtaining of licenses and permissions required for certain types of activities, etc. The lack of clarity about the criteria, time limits and other procedural rules for obtaining registration certificates, licenses or permissions by enterprises may be a serious barrier to new entry into a market.
305. The legal base is also needed for the development of a stock market.
306. One of the critical elements of an overall legal reform program should be institutional development. Enacting of a new legislation must be followed by successful implementation. Support must be forthcoming not only for short-term agencies like privatization agencies but for longer lasting entities such as company registration offices, bankruptcy courts, anti-monopoly agencies, securities and banking regulation offices, land offices and legal departments in government offices. Strengthening of implementation capabilities of functioning regulatory institutions should involve: (i) review of the whole administrative set-up and undertaking of certain administrative reform measures, and (ii) training officials in legal aspects of economic reforms, including regulatory aspects.
307. In addition, it will be necessary to strengthen the functioning of the judicial system to enforce contractual and other obligations and enable effective protection of individual and company rights. This will need to be preceded with a definition of the relative roles and responsibilities of courts and arbitrazh.

ANNEX VI

THE LABOR MARKET

308. Labor market reform is essential for the success of the current transition of the Armenian economy. First, due to numerous, severe rigidities of the labor market under the Soviet regime, the labor market has functioned extremely inefficiently. Hence labor market reform should yield large productivity increases. Second, labor market policies should also contribute to sustainability of overall reforms, by alleviating the costs connected with labor reallocation that will be the ultimately required in the Armenian economy.

309. The primary goal of Armenian labor market policies during the transition must be to facilitate the needed adjustment both by encouraging the efficient reallocation of labor and spreading the costs equitably among the different segments of population. Current labor market policies represent the first, but decisive, step in that direction. Their orientation -- leaving primary responsibility for finding a job to the individual, and letting the state provide a social safety net and a conducive environment for generation of jobs -- is commendable. Some tangible progress has been achieved, such as the introduction of unemployment benefits and flexible layoffs, freeing of wages, and easing the pressure on enterprises to hire. At the same time, the Government wishes to establish an active labor market policy, promoting adjustment through proactive employment services, training and retraining.

310. But the adjustment of the Armenian labor market is still in a very early stage. Although enterprises have significantly reduced their employment in 1992, it seems that they have done so primarily through the shedding of pensioners, while the more painful process of displacement has not yet started. Among other things, the adjustment is hindered by the present inconsistent labor market policies. These policies are in some areas too liberal, and in others persistently interventionist. This annex sets out the characteristics of the Armenian labor market, reviews its recent trends, describes current labor market policies and practices, and offers recommendations for improvements in wage policies, employment policies, and employment services.

A. Characteristics of the Armenian Labor Market

311. Under central planning, the labor market exhibited numerous rigidities. The chief ones were: job security; administrative job assignments and informal pressures to hire; the obligation to work; the non-existence of a legal private sector; rigid working hours; constrained geographic mobility; and a centrally imposed, egalitarian wage structure.

312. The following major characteristics of the Armenian labor market -- many of them produced by the above rigidities -- can be identified: predominance of state sector employment; recent expansion of non-state employment; hidden unemployment; nascent open unemployment; concentration of employment in industry; non-existent part-time work; pay egalitarianism and distorted interindustry wage structure; divergent trends in productivity and real earnings; relatively high labor turnover and low geographical mobility; high female labor force participation; good formal education of the labor force, and moderation of the population growth. Moreover, as the result of a political conflict with neighboring Azerbaijan, there has been a large net inflow of immigrants since 1988.

313. Predominance of state sector employment. A feature of socialist economies that has profoundly influenced their operation is the predominance of state sector employment -- the sector that has always been preferred by the authorities in socialist countries. This goal was originally achieved by

nationalizing most of the means of production, leaving limited scope for the private sector. The private sector was kept insignificant by legal limitations, discriminatory taxation, and limited access to and unfavorable terms for credit.

314. In 1991, the Armenian state sector provided jobs to 1,217 thousand workers -- more than three quarters of all employed workers (Table 1; see also Table A1 in appendix).⁵⁵ But since its peak in 1987, state employment has been steadily declining, particularly strongly in 1991, when it shrunk by nine percentage points.

Table 1: ARMENIA: Labor Force Summary

	1980	1985	1991
State Sector Employment	1218	1388	1217
Cooperatives	---	---	120
Kolkhozi	79.8	74.1	12
Private Agricult.	78.9	83.4	264
Private Non-Agriculture	0.8	0.9	6
Total Employment	1377.5	1546.4	1619
Unemployed	---	---	65
Total Labor Force	1377.5	1546.4	1684
Memorandum items: (percentage)			
Share of State Employment (including kolkhozi)	94.2	94.5	75.9
Unemployment rate	---	---	3.9
Participation rate	76.2	79.0	82.6
Part. rate - women	70.8	75.8	78.2
Part. rate - men	81.9	82.4	87.2

Sources: See Appendix, Table 1.

Notes: See Appendix, Table 1.

315. Recent expansion of non-state employment. The decline of state sector employment was largely due to the official sanctioning of non-state employment in cooperatives and private farms. Cooperatives emerged in 1987 and their employment expanded very dynamically during 1988-1990 (Table A1). Though their employment declined in 1991, that year they still employed 120,000 workers (7.1 percent of the labor force).⁵⁶ Private farming was strongly boosted by the 1990/91 privatization of land; new private farmers were recruited not only from former state and cooperative farmers, but also from workers who had previously worked in the state sector outside agriculture.

^{55/} Non-text tables pertaining to this section are given in the statistical appendix to this chapter.

^{56/} Total employment in cooperatives was 143,000, implying that 23,000 workers worked both in state enterprises and in cooperatives ("sovmeistyely"); see the discussion of cooperatives under the industry section.

316. Hidden unemployment. Together with the other socialist economies, Armenia has suffered considerable hidden unemployment (overstaffing). The estimates of the rate of hidden unemployment given by government officials and enterprise managers ranged from 20 to 30 percent. (According to some reports, underuse of work time -- a proxy for hidden unemployment -- in Eastern European countries has ranged from 10 to 30 percent).⁵⁷

317. The following factors contributed to hidden unemployment. First, under a soft budget constraint, firms hoarded labor so as to improve their ability to (over)fulfill the production targets set by the center. Second, once employed, workers had no fear of losing their jobs -- they could be dismissed only for seriously breaching work discipline (with unexcused absences, for example, or drunkenness on the job). Such job security reduced the ability of the firm to adjust its workforce effectively. Third, firms were forced to hire workers through both administrative job assignments, as well as informal pressures by Party officials.

318. Nascent open unemployment. As in other socialist economies, open unemployment was officially not recognized under the Soviet regime -- which is not to say that it did not exist. Of course, in the lack of official statistics, one could only rely on estimates of unemployment. The estimates of Armenian unemployment since the mid-1980s are based on surveys conducted by village soviets (in rural areas) and district police (in urban areas), and thus seem to be more than just "educated guesses." According to these estimates, the unemployment rate peaked in 1991, reaching a rather modest 4 percent (Table A1).⁵⁸ (See below the predictions of The Ministry of Labor on unemployment in 1992.)

319. Concentration of employment in industry. Armenia's employment composition is similar to that of other socialist economies. Employment is concentrated in industry: in 1990, industry absorbed 43 percent of workers; 18 percent of workers were farmers; and only 39 percent of workers were employed in services (Table A2). Moreover, contrary to the long-term trends in developed market economies, the share of employment in industry increased during the latter half of the 1980s (Table A3). High-income OECD countries have had much larger service sectors. Armenia's underdeveloped service sector thus provides ample opportunities for future expansion (in areas such as financial services, catering and tourism, insurance, consulting, etc).

320. Non-existent part-time work. Due to rigid employment policies, employment is virtually exclusively full-time. According to the estimate of the Ministry of Labor of Armenia, fewer than 0.5 percent of workers -- mainly retired people and those taking second jobs -- work part-time. Even though legislation under the Soviet regime allowed part-time work, employers were encouraged to employ on a full-time basis.

321. Pay egalitarianism and distorted interindustry wage structure. Drawing from the writings of Marx, socialist economies have pursued the principle "to everyone according to his work" by using a tariff system. Under the tariff system, jobs were classified (based on such factors as required

^{57/} Enterprises could afford hidden unemployment because they faced soft budget constraints (see M. Vodopivec, "The Persistence of Job Security in Reforming Socialist Economies," *Soviet Studies* 1991, No. 6, pp. 1011-1025).

^{58/} S. Oxenstierna, "Trends in Employment and Unemployment in the USSR," *Stockholm Institute of Soviet and East European Economics*, June 1991, reports unemployment rate of 3-6 percent for the whole USSR in 1989.

education, physical strain, and working conditions) into different skill grades -- the "skill-exertion matrices" -- to which economy wide wage rates were centrally assigned (they were modified by "regional coefficients" to account for differences in climate). To stimulate productivity, various bonus schemes were superimposed on base wages tying rewards either to individual productivity (piece rate) or to collective productivity (profit-sharing schemes).

322. Such wage determination produced two major negative effects. First, the pay structure was compressed thus dampening work incentives. For example, the 1986 tariff rates called only for a 4.27 range between the highest and the lowest basic tariff rate. Second, the sectoral structure of wages has been biased in favor of blue collar workers -- for example, workers in manufacturing are better paid than workers in education and culture (Table 2). (Sectoral wage structure has been fairly stable since 1980 -- with the exception of administration and particularly financial services, which improved their relative wages since 1986.)

Table 2: ARMENIA: Interindustry Wage Structure *
(percentage of the national average)

	1980	1986	1991**
Armenia (rubles)	163	185	318
Manufacturing and mining	112	115	111
Agriculture	78	83	86
Construction	145	155	154
Transport	117	114	96
Communications	85	83	95
Trade, catering and tourism	80	72	67
Housing and public utilities	69	68	72
Financial services	94	95	199
Education and culture	84	79	76
Public health and social welfare	83	65	74
Administration	92	88	106

Source: Statistical Office of Armenia.

* State sector only.

** Average of the first nine months.

323. Divergent trends of real earnings and productivity. The latter half of the 1980s witnessed a widening gap between productivity and real wages -- even though productivity was falling, real wages were growing, thereby changing the structure of final demand in favor of consumption (Table A4). While increasing up to 1985, productivity (measured as output per worker) has been falling since then (except in 1989, when there was an increase in economic activities following the December 1988 earthquake). In contrast, real earnings per worker steadily grew in the 1980s and in 1990, rising 56 percent above their 1980 level by 1990. (In 1991, both productivity and real earnings sharply decreased, the former falling five percent below its 1980 level, and the latter barely exceeding it.)

324. Relatively high labor turnover and low geographical mobility. Due to an overheated labor demand fueled by a soft budget constraint, the labor turnover (job changing) rate in Armenia has been quite high, that is, comparable to that in most OECD countries (see Table A5). In contrast, geographic

mobility has been notoriously low in socialist economies. The propiska system (see para. 235 below) and the lack of a functioning housing market have been major impediments.

325. High female labor force participation. While the male labor force participation rate in Armenia has been comparable to that in most OECD countries, the female participation rate has been much higher. In 1989, the female participation rate was 78.2 percent, similar to that in Scandinavia and Eastern European countries (except Yugoslavia), and higher than the one in Soviet Union (Table A6).

326. Good formal education of the labor force. Like the labor forces of the Eastern European economies, the Armenian labor force is formally well educated (Table A7). The Armenian labor force averages 11.3 years of education, which is only slightly less than the highest ranked socialist economy, Czechoslovakia (11.5 years), and is even above the average for the developed market economies (10 years). Of course, it is another matter how functional the education of Armenian labor force is, particularly from the point of the forthcoming transition to a market economy.

327. Moderation of population growth. Due both to the decreasing trend in fertility and increasing trend in mortality (the latter particularly since 1989 -- not counting the earthquake year 1988), population growth has been slowing down since 1984 (Table A8).

328. Net inflow of immigrants. Starting with February 1988, as a result of a political conflict with the neighboring Azerbaijan, there has been a continual inflow of Armenians from Azerbaijan, and outflow of Azerbaijanis from Armenia. In total, it is estimated that about 250,000 Armenians immigrated from Azerbaijan, and that about 170,000 of Azerbaijanis emigrated from Armenia (in 1991, the corresponding numbers are 32,000 and 600, indicating that these migration flows have slowed down).

B. Recent Trends: the Beginning of Labor Reallocation

329. While some of the labor reallocation during the transition may take place smoothly -- that is, as voluntary job changing that does not result in unemployment, reallocation in the present crisis is bound to call for extensive lay-offs and to produce massive unemployment. That has not yet happened. Although enterprises have reduced their employment in 1992, it seems that they have done so primarily through much less painful shedding of pensioners, while being quite reluctant to lay off other workers.⁵⁹ This can be concluded (aside from anecdotal evidence from enterprises visited) from the low number of registered unemployed, particularly those that have been laid off (see below).

330. Faced with a difficult economic situation, Armenian enterprises adjusted their demand for labor in two ways. First, they cut back their workforces. Compared to the last quarter of 1991, at the end of the first quarter of 1992 the state sector (outside agriculture) reduced employment by 106,000 workers (9.4 percent of the total).⁶⁰ About 60,000 jobs were cut in the non-material sphere (education

^{59/} At the end of 1991, 150,000 pensioners (out of 580,000) were working.

^{60/} There was also a cutback in state agricultural employment of 38,000 workers, but that predominantly reflected ownership transformation, that is, the drop in state employment was matched by an increase in private employment in agriculture.

and culture, and public health), and 46,000 jobs were cut in the material sphere; among the latter, manufacturing and construction both shed 15,000 workers, and trade and catering 11,000 workers. Second, enterprises let workers keep their jobs, but forced them to take leave without pay amounting to only two thirds of their base pay -- 336,000 workers were on such forced leave during November 1991 and March 1992. In parallel with these employment adjustments, wage differentials have widened.

331. In the two months after unemployment benefits were introduced in March 1992, employment offices registered 11,775 job seekers. About 2000 of them had been laid off, 1500 were first-time job seekers, over 5000 were labor market re-entrants, and over 3,000 had quit their jobs. By the end of April 1992, 6105 job seekers qualified for unemployment compensation, and 65 of them were also enrolled in training.

332. Government projections of unemployment for 1992 anticipated an inflow of 80,000 persons into unemployment in 1992 (or about 4.8 percent of the labor force). In the event, 60,000 were officially unemployed at the beginning of 1993. According to the same projections, 16,000 unemployed would be re-employed; 24,000 unemployed would enter professional training, and the remaining 40,000 would be supported by unemployment compensation. The whole program, together with the costs of running of employment offices, would cost 325 million rubles (in projections dated April 1992), out of which training costs would account for 154 million rubles, and unemployment compensation for 156 million rubles. At the current one percent payroll contribution rate, the Employment Fund would generate a substantial deficit; to close the gap, the contribution rate would have to be raised to about 3.5 percent.⁶¹

C. Current Labor Market Policies and Practices

333. Labor market rigidities under central planning produced two types of inefficiencies. First, labor allocation was inefficient because (1) both hiring and dismissal were divorced from economic criteria, (2) labor turnover did not necessarily enhance efficiency, due to a wedge between the wage and the value marginal product created by employment subsidies, and (3) internal labor markets were ineffective, because of ideological criteria in hiring and career advancement. Second, job security negatively affected work incentives -- directly, by the absence of the stick in the form of the threat of dismissal, and indirectly, through the weakening of profit-sharing as a device for boosting motivation.

334. As mentioned earlier, current labor market policies and practices have introduced greater flexibility, but problems remain, including: constrained geographic mobility; generous fringe benefits; counterproductive setting of intra-firm earnings differentials; administrative job assignments; and unnecessary administrative interventions in lay-offs. These practices are explained below:

Constrained geographic mobility (the propiska system)

335. The Employment Law defines the "appropriate job" (podhodyashchaya rabota), among others, by the distance from the permanent residence (propiska) of the worker; in Armenia, this distance is not to exceed 60-70 km. Since a worker may only be employed in an "appropriate job," this in

^{61/} The forecasts for re-employment and entry into professional training, are most unlikely to be realized, but the net effect on the total cost forecast would be small.

principle precludes many rural residents from taking jobs in, and moving to, the cities (above all, Yerevan). To this extent that this system is actually working (which is not clear), it is unjust, and is also inefficient -- it precludes selection from the larger pool of candidates and thus hinders competition.

Generous fringe benefits.

336. The present system offers many types of fringe benefits. Workers are entitled to pension, paid vacation, and paid maternity and sick leave. These are normal social insurance benefits in a market economy.

337. There are, however, other types of fringe benefits which are typically not found in a market economy. They are financed from the so-called social development funds of the enterprises and include provision of housing, payment of mortgage and consumer credits, obtaining lots for building a "dacha," paid excursions and traveling, and free meals. These benefits introduce inefficiency into wage setting. First, enterprises may prefer in-kind benefits because they are taxed less than the wage fund; once the tax status is equalized, workers are likely to prefer cash payment. Second, many of the in-kind benefits are provided to workers in the same quantities -- due to different tastes, many workers would prefer cash payments and the freedom to decide for themselves what to buy.

Counterproductive setting of intra-firm wage differentials.

338. New regulations in this area are under preparation. As the mission has been told, the regulations will determine ranges of relative wages for 15 categories of workers, with the largest overall wage range of 1:15. The regulations will apply to government workers, but may also be recommended for state and other enterprises. It is appropriate for the Government to utilize such wage regulations (possibly revising them temporarily to ensure competitiveness). But applying such regulations -- even only as a recommendation -- to state enterprises, let alone private ones, would be counterproductive. Even if the norms were only recommended, they would raise expectations both on the part of workers and employers, and thus distort the prevailing wage structure. Possible effects include reduced mobility of labor, inhibition of employment, and the reduction of overall productivity (the latter caused by the lowered morale of the more productive workers, if the regulations tilted the distribution toward egalitarianism). However, it is understood that the Government has now decided to apply a tax-based incomes policy rather than recommend a tariff.

Administrative job assignments

339. The Employment Law enacted in February 1992 stipulates that the government guarantees work for some groups of workers (single mothers, one of the spouses if both are unemployed, handicapped, and released prisoners and persons cured of alcoholism and drug abuse). This guarantee is achieved by assigning such workers to both state and other enterprises (the number of assigned workers cannot exceed five percent of the work force per year). If enterprises do not want to accept these workers, they must pay a fine equivalent to the yearly pay of the refused workers.

340. The above job guarantee program may seem, from a humane point of view, a just and reasonable one. But it does not make sense from the economic point of view. As the experience of

successful, socially-conscious countries (for example, Western European ones) shows, government must help certain groups of the population (for example, the poor and disabled). Such a help, however, does not and should not consist of job assignments, but rather of income support and investment in training and re-habilitation.

Unnecessary administrative interventions in lay-offs.

341. The Employment Law introduces quite flexible redundancy regulations, but it allows the Employment Office to delay mass layoffs. The law stipulates that an employer must give an employee at least two months advance notice for dismissal and provide severance pay equal to one monthly wage to the laid-off worker and the same amount to the Employment Fund. In case of a mass lay-off (defined as one exceeding five percent of the work force), the employer also has to give two month's notification to the Employment Office.

342. While the above regulations are similar to redundancy legislation in developed market economies, Armenian law deviates by allowing the Employment Office to delay lay-offs for a month, if it encounters difficulties in placing workers to be laid off. The employer may be partly compensated for such a delay from the Employment Fund. Such government interference in layoffs not only postpones the needed adjustment, but also induces rent-seeking behavior on the part of enterprises, as well as requires complex analyses to determine what losses, if any, were imposed by the delay of the layoffs.

D. Recommendations on Wage and Employment Policies

343. In addition to the shortcomings of current labor market practices discussed above, there is a need for the government to re-introduce an incomes policy and to encourage some labor shedding by state enterprises. In the formation of wages, the pendulum has swung too far in the direction of complete freedom in setting the wage bill. Current regulations have removed the incomes policy introduced in 1987, defining a ceiling on the annual increase in the wage bill of enterprises. Even state enterprises can freely set their wages; and, in the absence of any constraints on wage payments, state enterprises may increase their wages well above increases in productivity, thereby contributing to inflationary pressures. Also, collective bargaining is in a rudimentary stage of development, so there is only a weak institutional framework to support wage moderation.⁶²

344. The lack of an incomes policy complicates the task of orderly and rational labor shedding. A major task for policy makers -- and perhaps the most challenging one -- is to preserve jobs that are economically meaningful, while simultaneously encouraging labor shedding in those industries and in those enterprises that suffer from hidden unemployment or are economically non-viable. For Armenia this task is particularly complex, since short term financial indicators may not signal long term viability. On the one hand, the structural problem of hidden unemployment requires labor shedding; on the other

^{62/} Presently, there are two trade unions: the old, "official" trade union, whose leadership is unchanged from the Soviet times, and a new trade union "Miabanutun" (in translation "Spiritual Unity"). The two have formed a loose confederation. Miabanutun is much smaller; it has 35,000 members, mostly from the technical intelligentsia. The rest of the workers are members of the old trade union. As under the former Soviet Union, virtually all workers are members of one of the trade unions.

hand, the temporary problem of insufficient supply of energy and inputs due to the economic blockade requires preserving employment.

345. To assist the government in thinking about appropriate policies and programs to manage the transition to a market economy, this section offers recommendations on wage and employment policies. Proactive employment programs are discussed in the following section, and the design of the unemployment benefits program is discussed below in Chapter IV, along with Armenia's other cash benefits programs.

Wage Policy

346. The following actions (in the following order of priority) require immediate attention:

- To assure a minimum income for workers, the government should set and maintain the minimum wage slightly above the poverty line, and adjust minimum wage in the future by discretionary action.
- In the current unstable environment, an incomes policy is necessary. To be effective, the tax-based incomes policy needs to operate in the context of effective credit restraints on enterprises. (To take into account productivity gains, the increase in the enterprise wage bill could be tied to the increase in enterprise value-added, and any excess wage payments progressively taxed. A similar system was in place until January 1992.)
- The provision of excessive fringe benefits should be discouraged by equalizing the tax status of fringe benefits and cash earnings. Moreover, the provision of social benefits (for example, housing) should not be linked to employment.

Employment Policy

347. To build support for the market-oriented reforms, the government may want to take explicit measures to build support for the reforms:

- Establish a National Conciliation Council (with a tripartite structure -- the government, trade unions and employers) to discuss future policies and legislation.
- Launch a public relations campaign to demonstrate (i) unavailability of the reforms (as a price to be paid for the long-lasting wrong policies of the past), and (ii) its commitment to facilitate the needed adjustment by both encouraging efficient reallocation and spreading costs equitably among different segments of population. Moreover, to counterbalance the perceived negative developments (increased unemployment), the government should emphasize successes (such as people obtaining regular employment after finishing training or public employment programs).

348. As unappealing and painful as layoffs are, the costs of perpetuating the status quo are often much higher. Thus, controlled labor shedding by state enterprises plays an essential role in managing the transition; government must encourage firms to shed surplus labor and also shut down firms

with the poorest performance and prospects. However, in order to smooth out the reform cycle, and promote the sustainability of reforms, the government should tighten the budget constraint and induce more intense labor shedding at lower rates of unemployment and offer concessions (for example, tax waivers) at higher rates of unemployment. Concession should themselves be part of industrial policies--for example, to bolster strategic industries or support selected enterprises hurt by the blockade in the short run but considered viable in the long run.

349. To prevent not only costs imposed on employers by delaying mass layoffs, but also administrative costs to the government, the possibility to delay mass layoffs, when there will be difficulty in placing the redundant workers, should be reconsidered.

350. For the sake of efficiency and to prevent undue costs imposed on employers, the government may want to reconsider current job guarantees for certain categories of workers, possibly replacing them with employment subsidies (particular attention should be paid to invalids, due to their abnormally high rate of participation in the labor force as the consequence of the 1988 earthquake).

351. An important medium term task of the government is fostering geographic mobility of labor by removing the "propiska" (permanent residence) considerations from the criteria for job eligibility and provision of medical services. Government may want to consider such a move in conjunction with privatization of housing, which will improve the efficiency of the housing market.

E. Proactive Employment Programs

352. The transition to a market economy will entail a fundamental transformation in Armenia's labor market. The annual volume of labor turnover will increase substantially and open unemployment will arise and persist as firms and entire industries undergo restructuring. Labor market policies can assist the transition. In addition to unemployment insurance cash benefits which will be important in helping maintain the income of the unemployed, proactive labor market policies will be needed to facilitate job changing, skill acquisition and the provision of temporary jobs in certain circumstances. Proactive employment programs--including the employment service, training, and job creation--will be discussed in this section.

The Employment Service

353. A prominent feature of the labor market in market economies is the frequent turnover of workers in jobs. If efficiency gains and increased worker satisfaction are to be obtained, public policy should help remove barriers to labor turnover and assist job matching. Matching workers with available jobs is an area of proactive labor market policy traditionally undertaken by an employment service.

354. Armenia is developing an employment service and already has a number of employment offices. Currently, there are 41 offices: four in the largest four cities, and one in each of the 37 "rayons" (local jurisdictions), with 451 staff employed in them. In addition to earlier job matching functions, these offices now recommend training for some job seekers and make determinations about eligibility for unemployment insurance benefits. Employers have a statutory obligation to list vacancies with these offices, but most vacancies are filled without formal contact between employers and the local employment office. Employers are not obligated to hire workers referred by the employment office. Staff time seems

to be excessively devoted to filling out intake forms and the numbers of placements are low. In April the Yerevan office made 70 placements while the Gumri office made 25 placements.

355. The employment service should have as its primary mission the matching of workers to jobs. To ensure that effective job matches are made, services such as counselling, assessment, and testing are needed as well as surveys of employer needs and referrals to employers with vacancies. These functions can be most effectively performed if there is physical space present in the local offices for individualized meetings with job applicants. The offices visited in Yerevan and Gumri were small and crowded.

356. Although limited information has been gathered about the structure and functioning of the local employment service offices, some areas for change can be suggested. (1) To increase its effectiveness, employment service office space needs to be enlarged, and at least in Yerevan there is a need for additional offices in order to be closer to the applicant pool. At present a single downtown office serves the entire metropolitan area of 1.2 million people. (2) Staff effectiveness could be enhanced by use of computers to record job applicant information at intake and information on job listings. (3) Employment service staff should be cross-trained so that individual staff members can perform intake, counselling and benefit determination functions as the mix of office activities change on a seasonal and cyclical basis. Use of computers and cross training will both increase staff productivity. Also, (4) employment offices could simplify and streamline registration procedures for the unemployed, by advising applicants about vacancies before registering them, so as to avoid unnecessary registrations, and letting them fill in their own registration forms.

357. If the employment service is to become a more important part of the job matching process, employers need to have confidence in the skills of workers referred to them. To make the employment service more effective in meeting employer needs, two steps are important. First, accurately assess worker preferences and skills to ensure that referrals provide workers appropriate to employer needs. Second, consider instituting a system of open listings of vacancies in the employment offices. Currently listings are reserved for the unemployed. If listings were more widely accessible, i.e., open listings accessible to the employed as well as the unemployed, there would be a bigger pool of workers responding to the listings. This would give employers access to more qualified applicants. With an improved quality of referrals, employer willingness to use the employment service would be enhanced. The placement statistics noted above suggest that at present employers do not rely on the employment service to an important extent in filling job openings.

Worker Training

358. The majority of vocational training that currently occurs in Armenia is directed towards teenagers in the final years of the secondary school and young adults in technical colleges and universities. Students attend secondary schools through grade 11. However, many secondary school students enter vocational training programs after completing grade 8 while others enter after grade 10. The focus of this training is the acquisition of entry level qualifications for various (often lower skill) occupations. Technical colleges have a similar focus but directed towards entry into more highly skilled professions. The vocational training programs are intended for persons with little or no previous work experience.

359. Armenia has a large number of vocational training institutions and many students enrolled in their courses. The organization of vocational training is quite decentralized. In addition to the Ministry of Education there are vocational training programs administered under the aegis of the Ministries of Health, Transportation, Light Industry and Heavy Industry.

360. Questions have been raised regarding the content of the vocational training currently being offered. Enrollment has been falling, and an alleged reason is that the skills being taught are often for jobs that no longer exist or exist in much lower numbers than in the past. A national review of the level of resource commitment and the content vocational training is needed.

361. An emerging area of need is training for displaced workers. As enterprises close and/or restructure, workers with several years of past employment experience but lacking up-to-date qualifications and skills will lose jobs. Many will need to undergo retraining if they are to become successfully reemployed. The local employment offices of the Ministry of Labor are the obvious point of contact for such workers with labor market adjustment services. The range of services to secure reemployment include job referrals and matching, counseling, testing and skills assessment. For many the best path to reemployment will involve participation in a formal retraining course and the acquisition of an up-to-date qualification certificate. Where mass layoffs are anticipated, employment services should be offered at the workplace before displacement occurs.

362. Armenia has started to develop a system for retraining displaced workers. Job applicants at local employment offices can request training. Tripartite agreements among the training provider, the prospective employer and the employment office specify a course of training, a stipend to the worker during training and payment to the training provider if the person successfully completes training. (See Annex B for more discussion of the arrangement.) The current capacity of training institutions to accept unemployed workers is quite significant. There are two types of schools that are suitable for training of displaced workers: around 80 professional schools (the so-called PTUs), which can train about 15,000 of the unemployed per year; and training centers, run directly by various ministries or large enterprises and used for training of employed workers, which could also train up to 15,000 trainees per year for blue collar jobs (in 23 training centers), and up to 10,000 per year for white collar workers (in 16 training centers).

363. Ministry of Labor projections indicated that 24,000 workers were to undergo training in 1992 at a cost of 153.6 million rubles. (See Table 3 of Annex B.) This projection is widely at variance with actual enrolments through May 1992. In mid May there were 67 job seekers in training in Yerevan and 21 in Gumri. The information system does not yet connect data from all local offices into national aggregates, but these two cities represent about 40 percent of Armenia's total population. Thus even if the nationwide number in training in mid May fell into the 200-300 range, it is incredible that 24,000 will undergo training this year.

364. Armenia seems certain to undergo sharply increased unemployment during the remainder of 1992. One consequence will be a limited number of new job openings available to training and retraining graduates. This situation, typical of economies in periods of rising unemployment, severely limits the ability of training to reduce joblessness in the short run. Even if training graduates are placed, the extent of net job creation from training is vitiated by displacement effects, i.e., loss of jobs by other workers at the same enterprises that hire training graduates. Studies of training outcomes in market economies consistently show that low unemployment is a strong correlate of high placement rates of training graduates.

365. Despite this macro labor market consideration that limits the short term effectiveness of training in raising employment, it is clear that a large scale training program is needed during the economic transition. Two guiding considerations relevant to Armenia are the following. (1) Try to ensure that the content of training is appropriate with the skill requirements of newly-emerging jobs. Instituting a national survey of skill requirements and a system of occupational employment projections would help in planning future directions for training programs. (2) Increase the relative share of training resources devoted to retraining displaced workers. This probably implies that the level of resources currently devoted to vocational training of secondary school students should be reduced. In addition the government may want to consider training for potential small-business entrepreneurs, focusing on the organization, marketing, and financing of small businesses and drawing on the experience of ILO with modular training; and special training for re-settling refugees.

366. To assist re-employment of workers which have particular difficulties in finding a job, government may want to directly create jobs through public service employment programs (in areas such as assistance to elderly, child care, environmental clean-up). Such programs should use labor intensive techniques, yield only temporary jobs, and pay wages only slightly above the minimum wage.

Job Creation

367. For the foreseeable future Armenia will face a situation where the number of job seekers will exceed the number of jobs available, resulting in open unemployment. Although training can improve worker skills and help to reduce unemployment, other proactive measures may be useful. The creation of temporary jobs in the public sector can help to reduce open unemployment. Such jobs may be particularly appropriate for new entrants or re-entrants to the labor force, particularly if they lose their eligibility for unemployment benefits as recommended here (see Section B of Chapter IV). Well-qualified people could be used to help organize and direct programs for less skilled workers. National service for school leavers and college graduates may also be appropriate. Current labor legislation does not foresee a major role for public service employment programs. Such programs exist under the authority of a special presidential decree, but they are kept at a rather modest level (3,000 participants in 1991).

368. Temporary public sector jobs include public service employment and public works employment. The former refers to the provision of services by persons hired for temporary periods to perform services that otherwise would not be performed. Repair, clean-up and beautification of public areas in cities, and care of the elderly and handicapped (which may also save on institutional care expenses) are examples of public service employment activities. Such work requires minimal amounts of capital equipment and may be reserved for the unemployed. Public works employment refers to public projects like road construction and repair and building construction and repair. This employment also can be temporary. Unlike public service employment, however, public works employment entails substantial inputs of capital equipment and materials. Thus it produces more visible and long lasting products and services but is more expensive. Both types of public sector jobs require organization and supervision; if programs are not well run, they could lose public confidence.

369. During this period of economic transition and restructuring, Armenia needs to consider using temporary public jobs as one element of its proactive labor market policies. At present there is no statutory basis for a temporary job creation program. There was a provision for temporary public jobs in an early draft of the Employment law passed in February 1992. The provision would have targeted

jobs in the public and agricultural sectors and would have been administered by the municipalities. However, the parliament removed this proposed section from the law.

370. Following the 1988 earthquake there were temporary public works projects in the earthquake zone. Materials, equipment and technicians were supplied by the Soviet Union to help rebuild infrastructure and buildings. This assistance has been terminated, but a continuing need for reconstruction in the earthquake zone was apparent when World Bank mission members visited Gumri in May 1992.

371. Some caveats can be advanced regarding temporary job creation programs. Potentially they can compete with private sector activities and inhibit the growth of the private sector. Thus it is absolutely essential that any actions that create such employment have built in safeguards to ensure that the employment is indeed temporary. If eligibility for temporary jobs is restricted to the unemployed, the net labor cost of the jobs will be reduced to the extent that temporary salaries replace unemployment insurance cash benefits. To the extent the temporary jobs are of the public works variety, there will be a need for materials and capital equipment. These may not be available from sources within Armenia, but such programs may be able to attract funding from foreign donors--emphasizing their emergency and temporary character.

372. In view of the devastation in the earthquake zone and the continuing need for residential and other structures, it would seem that a temporary jobs arrangement to put unemployed human resources to work in alleviating the earthquake's effects could be helpful. Armenia should consider temporary job creation targeted on this problem as well as other public needs.

373. Job training and temporary job creation programs both can be important elements of active labor market policy. In periods of robust labor market demand it is much easier to place training graduates because many new job slots are present. At the same time the need for temporary job creation measures is reduced because the private market will generate sufficient jobs openings for most job seekers. Conversely, in recessions job training measures are less effective and the need for temporary job creation increases. Thus a different mix of resources between these two active measures is appropriate in different labor market situations. To facilitate resource reallocations at different stages of the business cycle, both types of labor market measures should fall under the authority of a single administrative agency whose budget can be reallocated as appropriate.

Recommendations

374. To summarize the recommendations made above, the government should:

- Authorize a temporary jobs program and place it under the same agency that administers the job training program for displaced workers (the Ministry of Labor).
- Like the program to earthquake relief and environmental clean-up and seek external financing for it;
- Supply management training for agency managers and training for operating staff in counselling, computer literacy, knowledge of the labor market, intake and UI benefit determination;

- **Market services to both employers and job seekers generally, and post listings of job vacancies submitted by employers to the Employment Service so that all job applicants (not only the unemployed) can have access to potential jobs;**
- **Streamline procedures including, in particular, the intake process for applicants for unemployment benefits.**

ANNEX VI
LABOR MARKET
STATISTICAL APPENDIX

Table A1. ARMENIA: Labor Force, 1980-1991 (per 10³)

	1980	1985	1986	1987	1988	1989	1990	1991
State Sector								
Employment-Total	1,218.0	1,388.0	1,403.0	1,417.0	1,406.0	1,350.0	1,330.0	1,217.0
Women	546.0	651.0	659.0	675.0	670.0	648.0	646.0	590.0
Percent of women	44.8	46.9	47.0	47.6	47.7	48.0	48.6	48.5
Cooperatives								
Women	0	0	0	1.7	41.6	82.5	127.4	120.0
Percent of women	-	-	-	29.4	41.8	44.1	38.4	37.5
Kolkhozi								
Women	36.7	32.5	31.9	29.9	26.7	24.8	23.9	5.0
Percent of women	46.0	43.9	43.6	42.8	46.5	45.8	44.6	41.7
Private Agricult.								
Women	69.5	72.5	80.4	80.7	85.4	81.4	87.6	161.0
Percent of women	88.1	86.9	87.3	86.5	83.3	80.0	76.8	61.0
Private								
Non-Agriculture								
Women	0.3	0.3	0.4	0.4	2.1	1.0	1.3	2.4
Percent of women	37.5	33.3	33.3	30.8	41.2	27.8	23.2	40.0
Total Employment								
Women	652.5	756.3	771.7	786.5	801.6	791.6	807.7	803.4
Percent of Women	47.4	48.9	48.3	48.6	49.1	49.7	49.5	49.6
Unemployed								
Women	1,807.0	1,957.3	1,979.4	1,998.8	2,001.2	9.0	9.0	9.7
Percent of women	921.6	998.2	1,099.5	1,019.4	1,020.6	15.0	15.0	15.0
Total Labor Force								
Women	652.5	756.3	777.7	794.0	806.1	800.6	816.7	813.1
Percent of women	47.4	48.9	48.3	48.6	49.1	48.5	48.3	48.3
Memorandum items:								
Unemployment rate	-	-	2.5	3.1	1.8	3.6	3.5	3.9
Working age popul.	1,807.0	1,957.4	1,979.4	1,998.8	2,001.2	2,008.1	2,021.1	2,039.0
Women	921.6	987.0	1,010.8	1,024.0	1,030.0	1,024.1	1,030.8	1,039.9
Percent of women								
Participation rate	76.2	79.0	81.3	81.7	82.1	82.3	83.6	82.6
Part. rate - women	70.8	75.8	77.0	77.9	79.0	78.2	79.2	78.2
Part. rate - men	81.9	82.4	85.8	85.7	85.3	86.5	88.2	87.2

Sources: Statistical Office of Armenia; Ministry of Labor of Armenia (unemployment estimates).

Notes: Unemployment rate is defined as the percentage of unemployed in the labor force. Participation rate is defined as the percent of the labor force in the population of the working age. Under private agriculture, persons officially labelled "employed in auxiliary activities" are also included. In 1991, there was an increase of private farmers due to the privatization of land.

**Table A2. ARMENIA: Comparison of Employment Composition, 1989
(percentage)**

	Agriculture	Industry	Services
Armenia (1990)	18.2	43.0	38.8
Socialist countries			
East Germany	10.3	45.4	44.4
Czechoslovakia	11.7	47.1	41.1
Bulgaria (1988)	19.3	46.3	34.4
Soviet Union (1988)	20.2	35.2	44.6
Hungary (1985)	21.1	38.6	40.3
Yugoslavia	25.0	36.0	39.0
Poland	29.9	39.7	30.4
Selected OECD countries			
Austria	8.0	37.0	55.1
France	6.4	30.1	63.5
Germany	3.7	39.8	56.5
Italy	9.3	32.4	58.2
Spain	13.0	32.9	54.0
Portugal	19.0	35.3	45.7
Sweden	3.6	29.5	67.0
United Kingdom	2.1	29.4	68.4
United States	2.9	26.7	70.5

Sources: Statistical Office of Armenia; Statistical Yearbook of Yugoslavia, various issues; OECD, Quarterly Labour Force Statistics, No. 4, 1990; IMF, IBRD, OECD, EBRD, The Economy of USSR, 1990; L. Riveros, Wage and Employment Policies in Czechoslovakia, PRHEE, World Bank, 1991, processed; C. Burda, Labor and Product Markets in Czechoslovakia and the ex-GDR: A Twin Study, INSEAD, 1991, processed; L. Fox, Labor Markets in Bulgaria: Policies, Institutions, and Results, EM4HR, World Bank, 1991, processed; World Bank, Poland: Employment Promotion and Services for a Market Economy, 1990.

Notes: Agriculture comprises ISIC Major division 1: agriculture, hunting, forestry, and fishing; Industry comprises ISIC Major divisions 6-9 plus 0: wholesale and retail trade, restaurants and hotels; transport, storage and communications; financing, insurance, real estate and business services; community, social and personal services; and activities not adequately defined.

Table A3. ARMENIA: Structure of Employment by Sector

	1980	1985	1990
Manufacturing and mining	30.2	29.9	31.8
Agriculture	22.0	20.3	18.2
Construction	8.6	8.6	11.2
Transportation and Communications	6.9	6.9	5.6
Trade, catering and tourism	6.5	6.6	6.5
Crafts, housing, public utility	3.7	3.9	4.4
Financial Services	0.7	0.8	0.9
Education and culture	15.1	15.1	16.4
Public health and social welfare	4.4	5.3	6.1
Administration	1.9	1.8	1.8

Source: Statistical Office of Armenia, 1992.

Table A4. ARMENIA: Productivity and Earnings, 1980-1991¹

YEAR	Productivity (1980=100)	Average nom. earnings (in rubles)	Average real earnings (1980=100) ²
1980	100	161	100
1981	106	166	101
1982	107	170	100
1983	109	172	101
1984	113	176	104
1985	118	180	107
1986	118	185	108
1987	117	191	111
1988	113	199	115
1989 ³	124	254	146
1990	109	291	156
1991	98	380	105

Source: Statistical Office of Armenia.

Notes:

1/ Productivity relates to the so-called material sphere (social services are excluded). Earnings refer to state and cooperative employment.

2/ Deflated by index of retail prices.

3/ Includes activities following the December 1988 earthquake.

Table AS. ARMENIA: Labor Turnover, 19 1975-1989
(Annual number of separations per 100 employees)

COUNTRY	1975	1980	1985	1989
Armenia ¹	—	17.9	13.1	19.3
Socialist countries				
Yugoslavia	14.6	14.3	12.6	11.3
Poland	21.7	18.3	17.9	19.8
Hungary	—	—	—	24.4
Czechoslovakia	—	—	17.9	19.6
Bulgaria	—	—	—	21.0
Soviet Union ¹	—	—	—	21.2
Selected OECD countries				
France	—	17	18 ²	—
Germany	25	30	—	—
Italy ¹	14	15	—	—
Japan	16	14	14 ²	—
Sweden ¹	21	20	17 ²	—
United Kingdom ¹	30	25	21 ²	—
United States ¹	50	48	—	—

Sources: Statistical Office of Armenia; Statistical Yearbook of Yugoslavia; Statistical Yearbook of Czechoslovakia; Statistical Yearbook of Poland; Statistical Yearbook of Hungary; World Bank, Bulgaria: Crises and Transition to a Market Economy (Report No. 9046-BU, 1991 L), 1991; IMF, World Bank, OECD, EBRD, A Study of the Soviet Economy, 1991; OECD, Flexibility in the Labor Market (The Current Debate), 1986.

Notes: ¹ Manufacturing only.

² 1984.

**Table A6. ARMENIA: Comparison of Labor Force Participation Rates, 1989
(percentage)**

	Total	Women	Men
Armenia	82.3	78.2	86.5
Socialist economies			
Czechoslovakia	87.3	84.6	89.8
Poland	80.2	77.2	82.9
Romania	84.2	80.6	87.3
Soviet Union	78.0	72.0	84.0
Yugoslavia	64.5	55.6	73.3
Selected OECD countries			
Austria	67.2	54.3	80.4
France	65.6	55.7	75.4
Germany	68.2	54.5	82.8
Greece	59.8	43.4	75.6
Italy	60.7	44.0	77.8
Japan	73.4	59.3	87.2
Spain	58.6	39.9	77.4
Sweden	83.3	81.0	85.6
United Kingdom	76.0	65.2	86.8
United States	76.8	67.9	85.9

Sources: Table 1; OECD Employment Outlook, OECD, Paris, July 1990; IMF, IBRD, OECD, and EBRD, The Economy of USSR, 1990; Statistical Yearbook of Czechoslovakia, 1990; Statistical Yearbook of Poland, 1990; World Bank, Romania: Accelerating the Transition: Human Resource Strategies for the 1990s (Report No. 9577-RO), May 1991.

Notes: Participation rate is defined as the percentage of the labor force in the population of working age. The latter refers to age 15-64, except for Yugoslavia and Slovenia (15-59 for women, 15-64 for men); Czechoslovakia (15-55 for women, 15-60 for men); Poland (18-59 for women, 18-64 for men), and Romania (16-55 for women, 16-59 for men). Because of the differences in the definitions of working age population, participation rates for socialist countries tend to be biased upward. For France, Germany, and Greece, women's and men's participation rates refer to 1988.

Table A7. ARMENIA: Educational Composition of the Labor Force
(Percentage of the labor force)

COUNTRY	No education	Primary Education (completed or uncompleted)	Secondary Education (Completed or uncompleted)	Higher Education	Mean years of schooling
Armenia	1.0	56.2	23.6	19.2	11.3
Socialist countries-average	2.2	39.4	52.4	5.9	9.5
Yugoslavia (1981)	7.4	52.5	35.9	4.2	5.6
Bulgaria (1975)	4.0	67.6	22.5	5.9	8.7
Czechoslovakia (1980)	0.0	37.5	55.7	6.8	11.5
Hungary (1980)	0.7	28.2	62.7	8.4	10.4
Poland (1978)	1.3	8.6	84.7	5.4	10.7
Romania (1977)	0.0	42.1	53.0	4.9	9.8
Developed market countries	0.4	27.1	56.1	16.3	10.0
Southern European countries	12.5	59.1	20.6	7.8	5.9
Middle East and North Africa	50.2	29.8	15.9	3.6	3.4
East Asia and the Pacific	16.1	45.0	33.0	5.8	6.4

Sources: Statistical Office of Armenia; G. Psacharopoulos and A.M. Arriagada, The Educational Composition of Labor Force: International Labour Review, Vol. 125, No. 5, 1986.

Notes: The data refer to formal education. Armenia's unusually high percentage of workers with higher education is at least partly attributable to differences in the system of education -- In Armenia, only 15 years of schooling is required for a higher school degree. In the group of developed market economies there are: Austria, Belgium, Canada, Denmark, Finland, France, West Germany, Japan, The Netherlands, New Zealand, Norway, Switzerland and the United States (their data are from 1975-82). In the group of Southern European countries there are: Greece, Portugal, Spain, and Turkey (their data are from 1980-1). In the group of Middle and North Africa countries there are: Afghanistan, Algeria, Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Morocco, Qatar, Syria, Tunisia, United Arab Emirates, and Yemen (their data are from 1970-81). In the East Asia and the Pacific countries there are: China, Taiwan, Fiji, Hong Kong, Indonesia, Korea, Malaysia, New Caledonia, Philippines, Singapore, Thailand, and Tonga (their data are from 1974-83).

Table A8. ARMENIA: Demographic indicators

YEAR	Population (thousands)	Natural growth rate (per 10 ³)	Fertility (per 10 ³)	Mortality (per 10 ³)
1950	1347	23.6	32.1	8.5
1961	1905	30.8	37.2	6.4
1971	2548	17.7	22.6	4.9
1980	3074	17.2	22.7	5.5
1981	3119	18.1	23.4	5.3
1982	3169	17.7	23.2	5.5
1983	3218	17.9	23.6	5.7
1984	3267	18.4	24.2	5.8
1985	3317	18.2	24.1	5.9
1986	3362	18.3	24.0	5.7
1987	3412	17.2	22.9	5.7
1988	3457	11.3	21.6	10.3 ¹
1989	3449	15.6	21.6	6.0
1990	3515	16.3	22.5	6.2
1991 ²	3575	15.2	21.6	6.4

Source: Statistical Office of Armenia.

Notes:

1/ An increase in mortality is due to the December 1988 earthquake.

2/ Preliminary data.

ANNEX VII

PROTECTING THE NEEDY - THE SOCIAL SAFETY NET

375. This annex discusses the Armenian Government's program to provide social protection to population groups which may be unable to provide for themselves (the old, the very young, and the unemployed). The main objectives of such programs are good coverage of the target population, efficient delivery, and effective outcomes (e.g. re-employment for the unemployed). The constraints are the very limited budgetary resources now available and the Government's capacity at this time for design and administration of new programs. It is expected that the programs together will provide a social safety net for the poor, allowing them to maintain a minimum standard of living despite adversity. The social safety net is an important feature of market economies, where relatively few basic necessities (e.g. housing) are provided, or even subsidized, by the Government; and there is no guaranteed employment.

376. The annex starts out with the social safety net objective in mind and explains the need for identifying who the poor are and defining a realistic minimum standard of living. It continues by describing in turn the Government's programs for cash benefits, social assistance, health, and housing-- and offers some recommendations for improving the design and implementation of these programs.

A. Who are the Needy and How Much Protection?

377. In order to establish an effective social safety net, it is first necessary to identify the poor and then to define a realistic minimum standard of living, or "poverty line", which the Government will attempt to provide to each citizen who has no alternative means of support. Depending on the resources of the Government, the poverty line might represent bare survival or it might permit a more acceptable or decent standard of living with some amenities. Unfortunately, only the former is appropriate to Armenia in its current circumstances. But the logic of having defined a survival, or subsistence, income is that its real value should be maintained over time; and the minimum wage, as well as minimum pensions and unemployment benefits, should be set equal to, or in excess of, the poverty line. The following discussion summarizes the information presently available on who the poor are in Armenia and what an appropriate poverty line might be.

Identifying the Poor

378. There are a number of problems in identifying the poor in Armenia. For example, although information on public sector wages and cash transfers of individuals is available, there is no information on how these correlate with other income sources. Also, although a household survey is available and now undertaken on a quarterly basis, the geographic coverage and stratification by activity need to be improved. Nevertheless, some idea of who the poor are and where they live can be deduced from these sources plus general knowledge.

379. Clearly, the earthquake victims and many of the refugees from neighboring Azerbaijan are among the poor, in terms of both income and assets. Also, the household survey shows a strong negative correlation between per capita family income and family size (providing a strong argument for child allowances), and many people say that elderly people living alone in urban areas are in special need of assistance. Wage data show that medical workers and teachers have the lowest wage incomes, and they are believed to have little outside income on average. In general, however, both wage data and household income data show that there is relatively little disparity in incomes for the vast majority of the

population. In the past two years average real incomes, the minimum wage and pensions have all declined dramatically in real terms. With the decline, the income distribution has become more compressed. However, disparities are likely to increase with the transition to a market economy, which is characterized by wage decompression. Meanwhile, savings have been enormously eroded by inflation, where not actually frozen in the banking system. This suggests that the Government needs to be particularly careful to provide a minimally adequate income to vulnerable population groups, since there is little wealth to cushion real income declines.

Setting a Poverty Line

380. There is no magic formula for setting a minimum income, or poverty line, below which an individual or household would suffer severe hardship if no other resources are available. The upper limit is determined by affordability and political will; the lower limit must be determined by the bare necessities for survival. Where the lower limit is applicable, the concept implies that the minimum income should be maintained in real terms—unlike other incomes and benefits in the economy, which should not be formally indexed, since pervasive indexation can prevent macroeconomic stabilization. Attachment 1 to this Annex describes the current efforts of the Ministry of Economy to establish such a poverty line for Armenia.

381. As shown in Attachment 1, even a downward adjustment in the Ministry of Economy's current estimate of the poverty line would leave the current minimum wage and minimum pension of R 600 per month below the poverty line. This means that many people will need to rely on the informal social safety net of family, friends, and neighbors. It also argues the need for social assistance, as discussed below.

Recommendation

382. The Government should establish a poverty line based on a subsistence consumption basket including only bare necessities; link minimum unemployment benefits, minimum pensions, and any social assistance benefits to the poverty line; and adjust the poverty line to maintain benefits constant in real terms. The minimum wage should also be greater than or equal to the poverty line. Consideration should be given to adjusting the poverty line for family size and for urban/rural cost differentials.

B. Armenia's Cash Benefits Programs

383. Armenia has an extensive set of programs that pay cash benefits for old age, invalidity (permanent disability), unemployment, short term sickness, pregnancy, death, children's allowances and student stipends. (A more detailed description of the individual programs is given in Attachment 2) Combined benefits from these programs exceeded 1.2 billion rubles in 1991 or 8 percent of Gross Domestic Product. The old-age-invalidity program, the largest of the cash benefits programs, paid a total of 771 million rubles in 1991. However, payments in excess of 50 million rubles were also made for temporary disability and sick leave, maternity leave and infant allowances, children's allowances and student stipends.

384. The old-age-invalidity program replaces 50 percent of earnings in the past year or the average of the highest five of the past ten years (whichever is higher) but subject to a benefit maximum and minimum. Retirement ages are 60 for men, 55 for women but younger for persons employed in certain hazardous occupations. To be eligible for old age benefits men must work for at least 25 years while women must work for at least 20 years. Persons who work more years than these minimum thresholds receive higher monthly benefits. Starting in 1992 workers can receive full benefits regardless of current earnings.

385. Invalidity benefits are awarded to those with permanent disabilities whose conditions are certified by medical panels. Disability is divided into three severity categories with highest payments (100 percent of previous earnings) going to those determined to have permanent and total disabilities.

386. Armenia has an unemployment insurance (UI) program newly created in 1992. It is administered through local offices of the Ministry of Labor which combine job matching and training services with the payment of UI cash benefits. Benefits generally replace 50 percent of previous earnings except for job losers who receive 75 percent wage loss replacement during the first 8 weeks of unemployment. Unemployed new entrants into the labor force and re-entrants are eligible for benefits as well as job losers and job leavers.

387. Temporary disability and sick leave payments replace from 60 percent to 100 percent of previous earnings depending on worker seniority (100 percent for workers with at least 8 years of seniority). A current proposal would liberalize both the level of these payments and the measurement of seniority needed to receive higher wage loss replacement.

388. Armenia pays full wage continuation benefits for 140 days to women expecting children. The 140 day period is divided evenly between 70 days of benefits before childbirth and 70 days after childbirth. These time intervals were both increased from 50 days during the Soviet period.

389. Children's allowances and student stipends are also important parts of the cash benefits system. Children's allowances up to age 6 are paid out of the old-age-invalidity fund. Allowances for children aged 7-18 and student stipends are explicitly included in government budgets.

Policy Recommendations: Estimated Savings and Administrative Changes

390. Armenia's cash benefits programs are not designed for the poor alone (e.g. child allowances are given in support of all children), so the issue of affordability arises. Given the current very severe budgetary constraints, possibilities for saving through better targeting need to be identified. Of course, the gain from potential saving with increased targeting needs to be weighed against the loss from political support or from increased administrative costs.

391. The following is based on the optimistic scenario (see Volume 1, chapter 1) and on a decision (now under review) by the Government to continue to establish a traditional European social insurance system. In the event that macroeconomic outcomes are worse, or a different approach to social protection is taken, - both of which seem likely - a more radical approach to restructuring entitlements will be warranted. In the near term, it will not be possible to pay more than a basic minimum whatever the structure of entitlements and the savings listed below should be implemented in any case. Here, estimates are provided of saving from improved targeting on the basis of the present system which should

be both administratively and politically feasible. These estimates are indicated below and described in more detail in Attachment 3 to this annex.

Old-age-invalidity program

- Raise the retirement age in stages to 62 for men and 60 for women by 1997.⁶³
- Reimpose an earnings offset that reduces benefits to recipients with high earnings.
- Eliminate longevity premiums paid to workers with years of earnings that exceed the requirement of 25 years for men and 20 years for women.

Estimated savings (in 1991 rubles): 1993 - 35.1 million rubles, 1995 - 63.2 million rubles, 1997 - 77.2 million rubles. (For details of the estimates see Attachment 3).

Sickness-maternity program

- Do not institute liberalized sick leave payments under consideration for enactment in 1992.
- Reduce length of paid maternity leave from the current 140 days to 100 days, to be divided as wished.

Estimated savings (in 1991 rubles): 28 million rubles per year (Attachment 3).

Unemployment insurance

- Lower the replacement rate on benefits paid to job losers during the first 8 weeks of unemployment from 75 percent to 50 percent.
- Eliminate from UI eligibility new entrants into the labor force and re-entrants. (See discussion in Section E of Chapter III on national service and temporary public sector job creation for possible alternative programs.)
- Reduce the maximum UI benefit from 3 times the minimum benefit to 1.5 times the minimum benefit. (A flat rate benefit could also be introduced, resulting in even greater savings; a two-tier system, relating supplementary benefits to supplementary contributions, could be introduced once the current economic situation has normalized.)

^{63/} The Government may subsequently wish to raise the retirement age of women to equal that of men, and raise both to 65 years.

Estimated savings (in 1991 rubles): 8.9 million rubles per year with 80,000 new unemployment occurrences, 17.8 million rubles per year with 160,000 new unemployment occurrences per year (Attachment 3).⁶⁴

Children's allowances and student stipends

- Institute a children's allowance offset for 17-18 years old with student stipends.
- Reduce student stipends by 25 percent.

Estimated savings (in 1991 rubles): 35.0 million rubles per year (Attachment 3).

392. There are also several important administrative tasks which are essential if the Government is to carry out these programs:

Establish a national archive for earnings records

- To ensure that determinations of eligibility and payment levels are accurate for retirement and invalidity pension applicants establish a national archive as a repository for past earnings histories of workers, which are currently maintained at the firm level. (Attachment 2).

Computerize the unemployment benefits information system

- To enable employment offices to deal with potentially large numbers of unemployed persons, a computerized information system handling both applications and vacancies will be needed. (Improvements in organizational aspects of employment services are further discussed in Section E of Chapter III above.)

C. Social Assistance

393. Armenia does not now have a comprehensive social assistance program. The Ministry of Labor and Social Welfare has a network of 69 Social Protection Agencies, which maintain a list of the most needy persons in their district and have limited funds to provide assistance. Also, the unemployment benefits program has some social assistance features in that it covers new entrants and re-entrants to the labor force, and the long-term unemployed can receive extended, reduced benefits by being reclassified as re-entrants. With the deteriorating economy, a few local groups have taken initiatives to

^{64/} The 1992 Employment Law specifies that unemployment compensation not be less than the minimum wage, implying a replacement rate of 100 percent for an unemployed worker previously receiving the minimum wage. If the minimum wage were above the poverty line (see Section A above), this specification may be too restrictive. It should be sufficient for the minimum unemployment benefit to be above the poverty line; any saving might be used for extended benefits, employment services, training, and job creation.

help the poor by establishing soup kitchens or visiting the elderly. Finally, many people are reportedly living off previous savings and receiving assistance through the informal social safety net of family and friends.

394. In the past, consumer subsidies have helped to maintain the affordability of a wide variety of consumer items, including essential foods (especially bread and milk products), education, hospital services and pharmaceuticals, utilities, housing rents, and transportation. Gradually, however, these subsidies are being, and need to be, cut. The general subsidy on milk and yogurt has recently been eliminated, and the bread subsidy is being reduced. Given the need to make sure that the most severe cases of poverty are addressed, a comprehensive social assistance program should be introduced in the future. Until then, however, a reduced but continuing bread subsidy provides an effective means of income targeting, since family budget studies show higher bread consumption by the poor and a shift to bread from other products as incomes decline. The proposed coupons for free or highly subsidized milk or bread, to be given to the most needy persons, would also provide them some protection for the inevitable price increases for these essential products in the future.

395. Starting in January of this year, government employees began to receive a flat-rate salary supplement of R 150 a month to compensate them for price increases. It is not clear whether other wage employees receive this supplemental payment, but those in most need—pensioners, the disabled, the unemployed and large families—would not be benefitted by a wage supplement. As pointed out in Attachment 1 on the Poverty Line, it will be important for the government to define a subsistence basket of food and non-food essentials, to track the cost of these items, and to raise minimum incomes to cover the cost of these essentials. This approach is advocated as an exception to the general policy of non-indexation of expenditures—including the minimum wage, as long as it remains above the poverty line. Non-indexation is important if the Government is to retain control over its fiscal policy, but adequate expenditures on subsistence incomes are essential for maintaining the social safety net, especially in communities where the informal social safety net has weakened.

396. A comprehensive social assistance program would provide means-tested income support to households not receiving adequate income from employment or other programs. It could be administered by the Ministry of Labor and Social Welfare with its network of Social Protection Agencies but would require three measures: (i) improved targeting of the existing cash benefit programs (see recommendations in Section B above) to release funds for social assistance and contain the payroll tax; (ii) identification of the poor by agreed criteria (for example, adjustments in the poverty line for geographic location if relevant and household composition); and (iii) structuring of benefits and organization of assistance to encourage self-help.

Recommendations

397. The Government's highest priority should be to develop a social assistance program to provide a safety net for low-income people not eligible for pensions or unemployment compensation. Widespread malnutrition makes this an urgent need. In this connection, the Government should improve the information system on who the poor are. This can be done through improved statistical surveys and local information channels developed by the Social Protection Agencies with the help of district and village governments.

398. As a social assistance program is introduced, the unemployment insurance program should be redesigned. If the economy develops along the lines of the medium and pessimistic scenarios, it will be necessary to pare entitlements down to the level of the minimum social assistance benefit, while retaining records of work history so that people are in a position to claim their entitlements once a supplementary income-related system of protection is introduced. Before that happens, however, the Government will want to have completely redesigned the system so that it avoids the pitfalls of job-related social insurance, including barriers to labor market flexibility and high non-wage labor costs for employers. Government thinking favors the establishment of an independent agency which could administer benefits but which would not tie worker entitlements to the performance of particular jobs or industries, many of which may disappear in the course of restructuring.

D. Health

399. Armenia's health indicators are comparable to, or better than, those in other parts of the former Soviet Union. Life expectancy in 1991 was an estimated 70 years, although it has declined slightly from 1989, and the infant mortality rate was 17. Until recently, preventive services and control of communicable diseases have been good, helping to explain the low infant mortality rate. Exceptions are insufficient attention to improved diets and reduced smoking--which are associated with rapidly rising rates of cardiovascular disease and cancers, especially lung cancer--and insufficient provision of a broad range of birth control methods. (The abortion rate is high--about one for every three live births--and many are performed outside hospitals.) Since the beginning of 1992, health services have deteriorated dramatically. Immunizations were disrupted at the beginning of the year due to lack of vaccines, and stocks of other drugs and medical supplies had also become depleted.⁶⁵ The lack of adequate housing for many households (see Section E below) contributes to the health risk under such adverse circumstances.

400. The system of health services consists of about 176 hospitals and more than 200 polyclinics. Urban areas are well served, and some public enterprises run their own polyclinics. Thirty-seven polyclinics serve the total rural population. Salaries of doctors are low, but the ratio of doctors and hospital beds to people is high by international standards, suggesting a system ruled by quantity rather than quality. Curative care is widely reported to be of low quality; doctors are allegedly poorly trained and equipment outdated. The whole system is highly centralized in management and Government financed; but most doctors, particularly in city hospitals, are given extra payments by patients. Less than 3 percent of GNP is spent in the sector, excluding these private payments.

Recommendations

401. Reform of the health system poses a major challenge. The Government should place a high priority on seeking technical assistance for health system organization and health financing, as well as humanitarian assistance for vaccines, drugs and medical supplies.

^{65/} See "Armenia: Report of a UNICEF Mission", mimeo, March 1992.

402. The Government wishes to retain universal access to health care and does not want to institute a medical insurance system. Within these broad lines, however, a great deal will need to be resolved concerning health system reorganization and financing. Based on preliminary discussions, the following elements of reform will be important:

-Decentralization of the management of the public system of health services, providing to municipalities and hospital directors more discretion (within specified clinical guidelines) in use of their budgets, which might be initially allocated on the basis of population size.

-Development of programs to attack the causes of rising adult mortality, including smoking, and to increase dramatically the availability of contraceptive methods and sterilization.

-Introduction of user fees in the public system, to provide incentives for improved efficiency as well as to contribute to the overall financing. Fees should be restricted to particular types of services (excluding immunizations and other preventive care) and to those able to pay. Patients should pay for private rooms, meals, and ancillary services.

-After the immediate needs listed above have been addressed, Armenia will need to consider how to define the role of the private sector in health care. It will be important to safeguard against cost inflation and the tendency to take spending decisions without regard to available funding capacity. It should also avoid the use of public resources and funds for services that are provided in the private sector.⁶⁶

E. Housing

403. Adequate housing is an important part of the social safety net, and many Armenians do not now have adequate housing. The December 1988 earthquake near Gumri (formerly Leninakan) left more than 500,000 people homeless, many of whom are still living in temporary shelters. In addition, an estimated 260,000 of the 350,000 Armenian refugees from Azerbaijan have come to Armenia, starting in 1988. Of these, over 100,000 are still homeless. Special programs have been undertaken by the Armenian Government and some international assistance has been received from foreign governments and from NGOs, but additional help is needed.

404. The Parliament is considering options for rapid privatization of existing government housing as a way to increase the resources available to house the homeless. Currently, about 45 percent of the housing stock in Armenia is public and the rest is private, with the latter particularly prevalent in the rural areas. Of the public housing, the majority is owned by the government--in principle, the local authorities--and smaller shares are owned by state enterprises and worker unions. A law on privatization of state housing was passed in 1989; however, relatively few apartments have been privatized to date. All city housing has basic services, but housing everywhere shows the effects of deferred maintenance.⁶⁷

^{66/} The latter is an invitation to uncontrolled spending and cost increases in the private sector--financed by the taxpayer.

^{67/} See note by Jerold S. Kayden (USAID/ICMA/PADCO), "Housing Sector in Armenia: Selected Information", May 1992.

405. Privatization of housing has merit in itself, but the Parliament favors an emergency program that would quickly reduce housing subsidies, releasing funds for use in new construction. The privatization program under consideration would transfer existing housing to the current occupants. In Yerevan alone, where approximately 50 percent of all housing, or 186,000 units, belongs to the public sector, the government would save budgetary resources in 1991 prices on the order of R 270 million (R 180 million in current expenditures and R 90 million in capital repairs) by transferring these costs to the new owners.⁶⁸ Tenants currently pay approximately R 100 per sq. meter to buy their apartment, and there is a proposal to either tax or sell the "extra space"--that is, the space additional to the normal allotment of 10 square meters per person. Approximately 15 percent of the Yerevan apartments have extra space. A relatively high transactions tax on housing sales is also being proposed.

406. The broad thrust of the program is attractive for a number of reasons. First, the privatization program would involve relatively little initial dislocation of households. Second, as most flats are approximately the same size, the program is relatively equitable. If special charges were made for extra space, one major source of inequity would be addressed. (To minimize the disruption caused by such charges, they could be indexed and deducted from the sale price received by the owner when the property first changes hands.) The remaining inequities, in terms of future property values, would lie in the initial condition and location of the housing, with apartments in better condition and near the center of town claiming a premium. The advantages of a relatively quick, convenient, and transparent privatization program would seem to outweigh the shortcomings associated with these remaining inequities, however. And rapid privatization would have advantages by supporting a broader and more flexible labor market (currently restricted by residency requirements), providing people with a potentially valuable asset and pride of ownership, and developing a housing market for new as well as existing flats.

Recommendations

407. Despite the many advantages of a privatization program, it will nevertheless be important to develop a comprehensive framework for the housing sector; and the government should do this, possibly with some external assistance, before proceeding further. Such a framework would need to include: an overall financial plan that looks at how to finance new housing as well as how to finance current housing; a legal framework; a privatization plan that takes into account individual behavior and the feasibility of implementation; and implications of the financial and privatization plans for government revenue and expenditure on housing for the homeless. These elements are discussed briefly below:

Overall financial plan. An overall financial plan is required to look at (i) how the maintenance of the current housing stock and the communally provided utilities are currently financed; (ii) how they will be financed in the future; and (iii) how the construction of new housing will be financed. Regarding current financing, budgetary expenditures by central and local authorities on housing maintenance and subsidies for communal services need to be clearly identified.⁶⁹ Additional housing services are currently provided by public enterprises; but will need to be

^{68/} Figures provided by Ms. Hranush Hakopian, Deputy Chairman, Parliamentary Committee on Social Questions.

^{69/} Evidence available from other socialist economies in Eastern Europe and China suggests that budgetary subsidies for housing in the Former Soviet Union may be on the order of 3% to 6% of GNP (see Bertrand Renaud, "Public Lecture presented at the Fannie Mae University Colloquium Series", World Bank, 1992).

financed by other means in the future.⁷⁰ In market economies, most households finance their own housing.⁷¹ Therefore, rents in Armenia should be raised at least to cover the cost of government outlays on maintenance and capital repair. Cost recovery on publicly financed communal services will also be necessary if the government is to reduce the fiscal deficit, provide housing for the homeless, and finance other aspects of the social safety net. But a switch in financing of this magnitude from the public to the private sector will not be easy to accomplish, since wages and cash benefits in Armenia have been kept lower than in other countries still in the ruble area. Cost recovery on cash outlays for housing by government and enterprises—not to mention cost recovery on the economic value of housing as indicated by its replacement cost—will clearly require adjustments in wages, pensions, and other cash benefits.

Once full cost recovery for the existing stock of housing has been achieved and a satisfactory legal framework (see below) has been established, the stage is set for the development of a housing market where people can rent or sell their apartments. The housing market will require supporting financial services (construction finance, mortgages, and insurance), but it should lead to a positive real rate of return on new housing, as excess demand for existing housing bids up its rental value and sales price. The government will still need to take continuing responsibility for implementing a program to address the need for new housing for the homeless, however, since these families will not have the effective demand to rent or purchase living space on their own. In addition to housing subsidies, the government may want to consider the possibilities of public works (see Chapter on the labor market) and "sweat equity" or other forms of participatory construction plus ownership.

Legal framework. The new Law on Ownership, which was not yet signed in May 1992, will provide clear ownership rights to different types of assets by level of government and thereby open the road to privatization. Local authorities are expected to receive title to housing and communal services, as well as to shops, some enterprises, and education and health facilities. In addition, however, the building and land ownership status for specific housing properties will need to be defined, distinguishing the areas subject to privatization and the rights of easement. For property subject to privatization, provision should be made for condominium and co-ownership laws, a rental statute with sample contracts, sample maintenance contracts, insurance laws, and mortgage security and foreclosure rules. For land remaining in the public sector, provision should be made for different types of leasehold contracts.

Privatization program. Local authorities should clearly explain the housing privatization program in the media so that the process becomes transparent and the advantages of ownership and a housing market are understood. Consensus at the national level on the model and preconditions for a privatization program will facilitate and speed up the process at the local level. Cost recovery through more realistic rents (discussed above) and the formation of a cooperative, with by-laws and a governing body, should both be pre-conditions for privatization. Majority rules governing choice of manager and decisions on maintenance and major repairs will

^{70/} In 1991, approximately R 300 million was spent by enterprises in Armenia on social development; a large share of this expenditure was for the maintenance and new construction of worker housing.

^{71/} The share of housing, including utilities, in total household expenditure in the Soviet Union during the late 1980s has been estimated at about 3 percent, or less than the share for tobacco and alcohol (Renaud *op. cit.*). In developed countries, housing excluding utilities is about 20 percent of household income.

be needed in buildings that are either partially or totally privatized, and provisions for contributions to maintenance by the poor will need to be considered (for example, through provision of cash benefits linked to a subsistence basket covering minimal housing costs, as discussed above). At the same time, sanctions for non-payment of cooperative fees will need to be specified. Government maintenance and construction teams have reportedly already formed themselves into cooperatives, which could provide maintenance services in a competitive environment.

Implications for government revenues and expenditures on new public housing. The establishment of private housing would provide a wider base for property taxes, which are normally assigned to local government. Local authorities may also want to raise additional revenues through the sale of city property to private investors and to levy a small transactions tax on real estate sales (not more than 4 percent, not to discourage the new housing market) to help finance their expenditures. Revenues from such sources could be expected to grow over time as the real estate market develops. In addition, budgetary saving on maintenance and communal services subsidies would provide substantial resources that could be earmarked over a period of say 5 years to provide housing for the homeless. Alternative private-public arrangements for construction could be explored, and some provision for the expression of consumer preferences could be introduced in apartment designs. As discussed above, public works to provide new housing in the earthquake zone should be explored as one way to provide employment in a socially useful way. Equity would require that the new apartments be made available to the homeless on terms similar to those made available to households already occupying public housing.

ATTACHMENT I TO ANNEX VII

A POVERTY LINE FOR ARMENIA

408. The Government of Armenia has an official "minimum consumption basket" which covers three categories of household consumption: food, non-food products, and services. It was derived in three stages: (i) The basket was first drawn up to reflect average per capita consumption in Armenia for the period 1985-90. (ii) The food items in this basket were subsequently adjusted to reflect the food consumption of a family with average per capita income of R 100 in 1989-90, as shown by the annual household expenditure survey of 1100 families. (Families with per capita income of R 100 or less made up an estimated 20 percent of the population at that time.) (iii) The food items were then adjusted upward to reflect a higher calorie norm of 3,200 per capita, established by the Ministry of Health/Institute of Food in the former Soviet Union. The estimated monthly per capita expenditure requirements to purchase this consumption basket was R 138 at end-1990, R 414 in the fourth quarter of 1991, and an estimated R 2,200 in the first quarter of 1992.

409. This "minimum consumption basket" is clearly too generous to be of any practical use in defining a poverty line to which a minimum pension, unemployment compensation or social assistance could be linked. As an example of its irrelevance for this purpose, only 14 percent of all families would have been above the poverty line in the fourth quarter of 1991, and only 10 percent in the first quarter of 1992.

410. In order to develop a more realistic poverty line with policy relevance for the current crisis, the Ministry of Economy has drawn up a reduced "subsistence food basket" with 10 expenditure categories, shown in the table below. This table also indicates the assumed annual consumption per capita, the average price in the first quarter of 1992 (taken from the household expenditure survey), and the annualized cost. The estimated daily calories (2900) and protein (95 grams) provided by the food basket are satisfactory. The estimated monthly cost is R 495 per person, and the government estimates that additional necessities would bring the poverty line to about R 700.

411. The Ministry of Economy estimates that approximately 60 percent of the population was under this poverty line of R 700 for the first quarter of 1992. If the food basket is reduced by 20 percent to a more Spartan level, the cost would be R 400 per person. Making allowances for other monthly expenditures on bare necessities--rent (R 15), utilities (R 30), transportation (R 40), medicines (R 25), and soaps (R 10)--would bring this to R 520 a month in the first quarter.⁷² With average inflation of 90 percent between the first and second quarters of 1992, it would have taken about R 1,000 to maintain the same standard of living in the second quarter, compared to an adjusted minimum wage and minimum pension of R 600 as of June 1, 1992. A recent increase in the official price of bread to 12 rubles a kilo is a four-fold increase over the price in March and would alone raise the monthly income requirement by another 110 rubles to R 630. With other non-food price increases anticipated, it will be extremely important for the government to extend its poverty line calculation to cover essential non-food goods and services and to adjust minimum incomes to cover these expenses on a regular basis. When the poverty

^{72/} These amounts are taken from data on monthly expenditures per person on these items at the beginning of the quarter, and hence imply a reduction in real terms.

line is defined as strictly as in Armenia now, the Government will have to somehow raise revenues to finance these essential expenditures.

Table 1. ARMENIA: "Subsistence Food Basket for Calculating Poverty Line"

Item	Annual Quantity (Kgs)	Average Price in 1st Quarter 1992	Annual Cost
Bread	200	4.14	828
Macaroni	6	17.85	107
Cereals	14	6.3	88
Milk	160	7.05	1,128
Eggs	100		
Fish	10	20.82	208
Vegetables	45	15.05	677
Potatoes	90	19.59	1,763
Veg. oil	12	27.66	332
Sugar	10	54.04	540
TOTAL			5,936
TOTAL per month			495

Source: Ministry of Economy

ATTACHMENT 2 TO ANNEX VII

412. This annex summarizes Armenia's social insurance programs as of May 1992. These programs bear a strong resemblance to those of other republics formerly in the Soviet Union. However, since achieving independence Armenia has enacted legislative changes, and additional changes are under consideration.

413. Social insurance as the term will be used here refers to programs financed by payroll taxes whose receipts are directed into off-budget trust funds: the old-age-invalidity program, the unemployment-training program and the sickness-maternity program. All three programs fall under the purview of the Ministry of Labor. The activities of the first two programs are financed through a single trust fund while a separate trust fund exists for the sickness-maternity program.

414. These programs are supported by payroll tax contributions levied at rates that sum to 31 percent, 30 percent for employers and 1 percent for employees. The approximate uses of the taxes are: 3 percent for the sickness-maternity program, 3 percent for the unemployment-training program and the remaining 25 percent for the old-age-invalidity program.

A. The Old-Age-Invalidity Program

415. Old age, survivor and invalidity (permanent disability) benefits are based on a computation formula that uses the last year of pre-retirement earnings or the highest-five consecutive years (out of the last ten years) with drop-out periods of differing lengths for invalidity pensioners. To be eligible for old age pensions men must have worked at least 25 years and women at least 20 years. The minimum ages for receipt of old age cash benefits are 60 years for men and 55 years for women with earlier retirement ages allowed for persons employed in hazardous occupations. There are also longevity premiums which increase benefits for persons who work more than 25 years before retiring, 1 percent for each year above 25 years. In early 1992 there were about 620,000 old-age and invalidity pension recipients.

416. The basic replacement rate is 50 percent but subject to a minimum and a maximum monthly payment. Information on past earnings is obtained directly from enterprises or from regional or national archives. With the rapid changes in enterprise continuity likely to occur in the next few years, an important problem that may emerge is the loss of information on past earnings needed to calculate eligibility and the level of benefits.

417. Between 1987 and 1991 the percentage of recipients paid the minimum pension benefit ranged from 14 to 18 percent of recipients. Those paid maximum benefits increased from 16 percent in 1987 to 34 percent in 1991. With the rapid inflation since November 1991, the percentage collecting the minimum pension (340 rubles per month in May 1992) has increased to more than 75 percent of all pensioners.⁷³

^{73/} The percentages of beneficiaries at the minimum and maximum from 1987 through 1991 appear in Table VII.1 of an IMF Report on Armenia dated May 14, 1992. An interview with a pension fund specialist during the World Bank mission of May 1992 provides the basis for the estimate that over 75 percent are

418. Survivors are the second major category of beneficiaries. They represent about 13 percent of the beneficiary population and receive about the same percentage of cash benefits from the old-age-invalidity program.

419. Invalidity pensioners constitute the third major category of recipients. They represent about 12 percent of beneficiaries but receive about 9 percent of payments. Invalidity pensioners fall into three disability severity categories. Category 1 refers to those with a rating of 70 percent or more of permanent and total disability. Category 2 refers to persons with limited ability to work but not in their main occupation. Category 3 refers to persons with minor disabilities. A local committee of doctors make disability determinations. The pension fund estimates that the three groups constitute 10 percent, 20 percent and 70 percent of recipients respectively. The invalidity beneficiary population has a heavy concentration of persons aged 45 to 59. Redeterminations of continuing disability occur annually, except that, after five years, those in category 1 no longer have their disability status reviewed.

420. The payment levels for all three groups of invalidity pensioners are related to high-five previous annual earnings (assuming that the person worked long enough to have 15 years of earnings). In principle payments to the three groups are 100 percent, 60 percent and 30 percent of previous earnings respectively. Persons in all three categories can have earnings without limit. Given the composition of beneficiaries and the payment formulas it appears that the annual payout to persons in categories 1 and 2 are roughly equal (each about one quarter of all invalidity payouts) while payments to those in category 3 represent about half of the total.

421. The Armenian government has a new policy of administrative job assignments where target groups are the handicapped, ex-prisoners, single mothers and families where both adults are unemployed. Enterprises employing 200 or more persons are required to employ at least 5 percent of these target groups or pay a fine equal to an annual average salary for each shortfall in meeting this minimum target. Administrative job assignments and possible benefit offsets (of invalidity benefits against the earnings of the disabled for those with "substantial" employment) should be taken into account in considering policy recommendations affecting the disabled in Armenia.

422. Old-age, survivor and invalidity pensions to non-agricultural recipients represented 70.6 percent of spending from the old-age-invalidity fund during calendar year 1991. The next largest category of payments from the fund are old age, survivor and invalidity pensions for those who formerly worked on collective farms. These payments have become a smaller percentage of overall fund outlays in recent years. Combined with regular old-age, survivor and invalidity pensions, the two groups of recipients represented about 83 percent of total fund outlays in 1991. The third major spending category is children's allowances paid to children up to age 6. This monthly stipend increased sharply in April 1991 when the basic payment rose from 4 rubles to 65 rubles. It subsequently increased to 110 rubles in January 1992 and then to 140 rubles in April 1992. Children's allowances represented 6.8 percent of old-age-invalidity fund spending in 1991. Military allowances for old age and invalidity are the fourth large category of expenditures, 4.6 percent of the total in 1991.

423. The Ministry of Labor supplied detail for 1989, 1990 and 1991 for eleven categories of spending from this fund, as shown in Table 1. The other seven categories combined, of which postal fees

for the delivery of benefit payments to recipients not attached to enterprises are the largest category, summed to only 5.4 percent of 1991 outlays.

B. The Sickness-Maternity Program

424. This program and its associated fund is administered separately from the old-age-invalidity program, and until recently was administrated by the unions. It derives revenues from the same payroll tax source as the pension fund.⁷⁴ This tax is to become a formal payroll tax (as opposed to an employer contribution) in legislation being considered in 1992.

425. The largest expenditure category is payments for sickness and temporary disability. The present payment formula replaces 60 percent of previous earnings for a worker continuously employed at an enterprise for less than 5 years, 80 percent for enterprise seniority of from 5 to 8 years and 100 percent for seniority of 8 years plus.

426. A law under consideration in 1992 would make substantial changes in cash sickness payments. It would substitute years of work experience (from all previous employers combined) for years of enterprise seniority in the computation of seniority, and it would replace 80 percent of past earnings (measured over the past two months) for those with work experience of up to 7 years and 100 percent for persons with 7 years or more of work experience. These proposed changes represent a liberalization of cash sickness benefits in three ways: a higher initial replacement rate, faster achievement of eligibility for 100 percent wage loss replacement and use of total previous work experience rather than enterprise-specific seniority to measure employment tenure. These developments are of some concern at a time when funding is inadequate to maintain the existing structure of benefits.

427. At present economy-wide average usage is 8 days of temporary disability sick leave per worker per year. In 1991 41 percent of sickness-maternity fund expenditures were for this category of cash benefits.

428. Maternity leave can be received for up to 140 days per birth: 70 days during the last part of the pregnancy and 70 days after the birth. Longer periods of eligibility are possible for difficult births and multiple births. The current duration of pre- and post-birth maternity leave in Armenia represents a substantial increase from 50 days allowed for each (or a total of 100 days) during the Soviet period. Beneficiaries are paid 100 percent of their previous wage. Additionally there is a birth allowance of 250 rubles per child (up from 110 rubles) and a monthly allowance of 140 rubles for young children paid until they reach age 2.⁷⁵ The birth allowance is well below the Russian level of 750 rubles. Maternity leave, birth allowances and infant allowances combined accounted for 33 percent of sickness-maternity fund outlays in 1991.

^{74/} In addition to a 3 percent payroll tax there are other less important sources: a 3.3 percent tax on the annual profits of farmers, a 5.5 percent license fee on small businesses plus interest earnings on fund balances.

^{75/} There are also children's allowances which are also paid at a rate of 140 rubles per month from birth until age 18. Allowances for children up to age 6 are an expenditure of the old-age-invalidity fund but then an on-budget expenditure (of regional budgets) for children aged 7 through 18.

429. Death benefits are currently 100 rubles and the Government is considering raising the benefit to three times the minimum wage, or 1092 rubles, this year.

430. There is also an important catchall category termed 14-to-18 percent expenditures encompassing a host of employee fringe benefits and specialized medical expenditures. Examples include sanatorium expenses, vacation expenses, pioneer camps, dietetic food, certain summer camp expenses, sports schools for pre-school children and part of expenses for post-operative costs associated with serious diseases like heart disease. In 1991 this category accounted for 18.1 percent of sickness-maternity fund outlays.

431. All other categories of spending from the sickness and maternity fund accounted for 7.0 percent of the total in 1991. Table 2 shows annual expenditures for eight separate categories during 1989-1991.

432. This fund is much smaller than the pension fund in its total outlays. In 1991, for example, its expenditures totaled 178 million rubles compared to 877 million rubles from the pension fund. From the previous description, however, it is clear that payment formulas for sickness-maternity fund beneficiaries have been liberalized since Armenia became an independent republic.

C. Unemployment Insurance-Employment Services

433. Armenia enacted legislation creating an unemployment insurance program in February 1992. Expenditures for unemployment insurance cash benefits, training benefits and job matching services are financed out of the same trust fund that traditionally has paid old-age-invalidity benefits. However, these expenditures are distinguished from other outlays from that fund.

434. Unemployment insurance has been grafted onto the existing administrative structure of the local labor exchange offices that predated Armenia's independence. Offices with responsibility for overseeing job matching, training and benefit payments are present in each region. The World Bank mission visited the offices in Yerevan and Gumri (the country's second largest city which is in the earthquake zone). Since this is the newest component of social insurance in the country, more details of its procedures will be provided than for the existing programs described in the previous two sections.

435. The unemployment benefit payment provisions are as follows.

Reason for Unemployment	Replacement Rate	Max Benefit Duration (weeks)
Job Loser	75% 8 weeks	32 plus longevity
Job Leaver	50% 24 weeks	
Reentrant	50%	24
New Entrant	50%	12

436. These provisions are standard in many respects except for two: the replacement rate for the first 8 weeks of 75 percent is high and the provision of benefits for new entrants is not common. It is not clear how much extra costs these provisions will eventually entail for the UI program but they

could be eliminated.⁷⁶ Since no one had received any UI benefits as of May 15, 1992, changing these provisions immediately would not entail a loss of benefits.

437. Three other aspects of benefit payments are worth noting. There are minima and maxima. Currently the minimum is 340 rubles per month. The maximum is set at three times the minimum or 1020 rubles.⁷⁷ The 50 percent replacement rate can be halved when the job termination is for cause, and in these cases the payment can be less than the minimum. A maximum duration bonus adds two weeks of potential eligibility for each five years of added seniority (above 10 years) for persons with 15 and more years of seniority. For exhaustees there is a possible 8 added weeks of eligibility provided at the discretion of the local employment office at a payment level of 336 rubles per month. For exhaustees there is also the potential to collect as a re-entrant for 24 weeks in the next year.

438. The preceding conveys the impression of a standard unemployment insurance program which if anything is generous by international standards. In fact, the program is structured in a very bureaucratic way with elaborate employment office application procedures, undue paperwork and an orientation that inhibits paying benefits to unemployed persons. If unemployment in Armenia increases substantially later in 1992, the caseload of applicants will overwhelm the administrative apparatus of the program as currently structured.

439. One way to see the problem is to review caseload and staffing information provided by the Yerevan and Gumri offices. The respective target staff sizes in the two cities are 90 and 30. These numbers are to serve urban areas with populations of about 1.3 million and 0.2 million with a single office in each city.

440. In Yerevan there were 1847 registered job seekers in the week of May 12. Their breakdown was as follows: 1000 with incomplete UI application documents, 600 eligible for UI, 67 in training, 70 reemployed, and 65 on notice but still working.⁷⁸

441. The office also provided data on the characteristics of 240 registrants. Selected characteristics were as follows: 173 or 72 percent were female, 181 or 75 percent had higher education (technical college certificate or academic college degree) and 181 or 75 percent had 10 or more years of seniority. The typical registrant is female, quite highly educated and experienced.

^{76/} The Ministry of Labor has made estimates of anticipated spending for the unemployment insurance and job training in 1992. These which appear below in Table 3 will be discussed presently.

^{77/} Given the inflation and wage distribution compression that has taken place in 1991 and 1992 the minimum benefit will dominate the maximum benefit as a determinant of UI benefit outlays for the immediate future. Table VII.3 of the IMF report dated May 14, 1992 shows a projected wage distribution for 1992 with 90 percent of workers in state enterprises earning less than 300 percent of the minimum wage. Thus roughly 90 percent of UI recipients would be expected to have a benefit level no higher than 150 percent of the minimum wage.

^{78/} The employer is required to give two months notice before a mass layoff which is defined as 3 percent of the workforce or 10 or more workers in large plants. The employment agency can further delay a mass layoff for an additional month, and it has already exercised this option.

442. In Gumri 2000 have registered including a group of 1000 in mid April. The office director indicated that most registrants do not have proper documents so that their applications are not complete. Of the remainder, 200 are eligible for UI benefits, 25 have been placed in employment and 21 are in training. The number of job placements is small compared to 2000 registered as job seekers and to the 429 listings of job vacancies supplied by Gumri employers. Of the 1000 mid-April registrants about 800 had incomplete documents.

443. To help understand these employment office statistics it will be useful to describe the intake procedures which were similar in the two offices. There are several intake forms to be filled out by employment office staff. A successful application for UI cash benefits will have at least 5 and probably more forms.⁷⁹ For each application a stack of forms is generated and filed in open shelves according to an intake number.

444. The first step in the intake process is registration as a job seeker with an associated form filled out by employment office staff. The job seeker is required to provide documentation at this stage. Three important documents are the internal passport (propiska), the certificate of graduation (to verify occupational status) and a work passbook (showing previous jobs held). The worker then indicates what types of jobs she or he desires. The employment office indicates which jobs the person is qualified for, given their qualification (from the graduation certificate). The worker is shown a list of available jobs from the employer listing. One job can be refused without losing UI eligibility, but a second refusal results in a disqualification.

445. Armenia requires employers to list all job openings with the employment offices, but this is not vigorously enforced. Reporting job openings is probably more complete among state enterprises than among newly emerging private enterprises. The total number of job listings is not large, e.g., 429 in May 1992 for Gumri a city of 200,000 with 2000 registered job seekers. Listings are more common for jobs with low educational requirements. Employers can refuse to hire workers referred by the employment office.

446. Up to this point, the intake process parallels the job matching process as traditionally performed by a public labor exchange program. This is a well established process in Armenia, a direct carryover from the Soviet period. The majority of the job listings are for jobs with low educational credentials (and probably low pay), and workers refuse them. Thus many or most job seekers with low or modest educational credentials face a substantial risk of disqualification even though their numbers may exceed the number of job listings by a factor of 5 (as in Gumri in May), 10 or even more. In terms of UI intake data, persons who refuses a second job offer have incomplete applications because they never get beyond this step in the intake process. Effectively the job listings act to prevent workers from being deemed eligible for UI benefits. When unemployment becomes prevalent, many will still be kept out of benefit status even when the unemployment/job vacancy ratio rises to a very high level. The mind set that governs current intake procedures seems to presume that the applicant really does not want to work.

^{79/} The numbering sequence and titles of the intake forms are as follows: Form I - Personal Data of the Citizen Seeking Employment, II - Job-Related Requirements, III - Suitable Work Offered by the Employment Office, IV - Professional Training Suggested by the Employment Office, V - Award, Suspension, Decrease Termination and Payment of Unemployment Benefits, VI - Financial Assistance Permission (Coupon) Issued, VII - Amount of Time in Unemployment Status.

447. The third step in the application process is to offer training to workers if suitable work cannot be offered. Workers are not required to accept training if it is recommended. For a job seeker who participates in training, the contract is a three party agreement among the employer who is willing to take the worker, the training provider and the employment office. Workers receive a training stipend (50 percent replacement of prior wages received during the past three months), and the training provider is reimbursed for the costs of training if the trainee passes the qualification test administered at the end of training.

448. The fourth step in the process is the determination of UI benefit eligibility and the level of benefits. Here there are a number of additional application documents to be provided including a document from the employer showing earnings for the past three months (used to determine the payment level). Placing this function at the end of the intake process provides a key indication of the priorities of the employment office. In Gumri, the employment office previously employed 10 people. It now has 15 employees (mostly from the previous employment office) of whom one is an unemployment payment specialist. When the office is fully staffed, it will have 30 people of whom 4 will be UI payment specialists.

449. The steps of the intake process all have associated forms to be filled out by employment office staff. At least 5 different pieces of paper must be completed for each successful application for UI benefits. The office allows 30 minutes of staff time per application. All the records are paper records.

450. There seems to be a fundamental conflict between the objectives of unemployed workers and the employment offices. The workers go to the employment offices to apply for and receive UI benefits following a job termination. The employment office greets them with intake procedures appropriate for a full employment labor market of the previous socialist period. When workers are told in effect to take a job from the listing of job vacancies they stop participating in the process. They are unemployed but do not get to the stage of collecting UI benefits. The employment office is left with incomplete applications in these instances. The incomplete applications include completed paperwork for three or more intake forms from the first two steps of the intake process previously described.

451. If the employment office continues to insist on controlling the job matching function as well as the UI payment function a change of intake procedures is needed. There is no obvious need to impose the job registration process on everyone who walks in the door. Under a system of open job listings⁸⁰ the employment office merely has to post the job listings in a public area, and keep the listing up to date by removing openings that have been filled (upon notification from the employers). Employers would prefer a system with open listings because it would give them access to a wider pool of applicants. Employment offices often prefer closed listings so that the unemployed are given an advantage in securing employment and to help assess UI applicants' availability for work. For persons who have lost their jobs

^{80/} Employment offices that provide job matching services differ in granting access to listings of job vacancies supplied by employers. Open listings can be scanned by a worker regardless of employment status (currently employed, unemployed or out of the labor force) and without control by employment office staff. Closed listings are controlled by employment office staff who assess worker qualifications and then match workers to listed vacancies. Closed listings can be made accessible to employed workers, but often systems with closed listings reserve access to unemployment insurance applicants. This is the situation in Armenia where refusal of more than one listed opening deemed "suitable" causes the employment office to conclude the worker is not really available for work hence not really unemployed and thus ineligible for UI benefits.

through a layoff, plant closing or other reason, the intake process needs to be streamlined. Either intake procedures should be modified to reach the refusal of suitable work part of the intake process more rapidly or to downplay the suitable work part of the process. In a situation of high unemployment the latter option is preferable because it allows processing a larger volume of claims with a given administrative staff.

452. The UI program is new in 1992 and thus does not have a historic record of program outlays. Anticipated outlays for 1992 as projected by the Ministry of Labor are about 300 million rubles. This is roughly evenly split between UI benefit payments and the costs of training (stipends plus training costs). Table 3 displays a breakdown of anticipated expenditures for 1992. For UI benefits there is detail on beneficiaries by reason for unemployment. Training expenditures distinguish training costs from training stipends. Total anticipated outlays are 325 million rubles. This is broken down as follows: UI cash benefits - 155.5 million rubles, training costs - 96 million rubles, training stipends - 57.6 million rubles, and employment office staff compensation - 16 million rubles. Based on experiences in the Yerevan and Gumri offices through mid-May the projected numbers of both UI recipients (40,000) and unemployed trainees (24,000) seem high. It seems unlikely that the levels of projected expenditures will actually occur in 1992.

453. The current UI program needs to be modified to handle mass applications for benefits. Since there is only limited administrative capacity at the employment offices as presently structured, a major change is needed. Some possible directions (not mutually exclusive) include adding a new office within the employment agency (focused just on UI benefit payment administration); modifying the worker employment passbooks to record earnings in previous jobs; and reasons for leaving previous jobs, computerize employer earnings records so the agency can make faster determinations of appropriate payment levels; or creating a new agency whose main function is the payment of UI benefits.

454. These suggestions are offered to indicate some possible future directions. Further considerations of the options could have been undertaken with Bank support. It seems clear that the employment offices as presently structured do not perceive or appreciate market economy labor market phenomena such as substantial voluntary labor turnover and involuntary unemployment. Combining job matching with UI benefit payments and training functions within a single administrative agency (as they have done) is a theoretically sound approach. However, the implementation of this approach in Armenia, through the administrative structure currently in place, gives short change to the UI benefits payment side of these functions.

ATTACHMENT 3 TO ANNEX VII**IMPROVED TARGETING OF CASH BENEFITS**

455. In the transition to a market economy Armenia will experience increased public expenditures for infrastructure, income maintenance, worker training and other functions that will contribute to chronic budget deficits. It will be important to limit the size of these deficits. Since large scale cash benefit programs are already in place, the potential budgetary savings from making program modifications need to be explored.

456. This section identifies areas for making cutbacks in cash benefits and provides quantitative estimates of the size of the savings. A guiding principle behind the analysis is to target the cutbacks so as to hold harmless the lowest income segments of Armenian society.

457. The analysis focuses on expenditures in four broad areas: the old-age-invalidity program, the sickness-maternity program, the unemployment insurance-training program and cash payments of children's allowances and student stipends. Combined expenditures across these four areas will total more than 8 percent of Armenian GDP during 1992. The summation of the cutbacks to be suggested represents more than 10 percent of total spending in these areas by 1997. The largest portion of the cutbacks would affect the old-age-invalidity program, the program where cash benefit outlays are the largest.

458. Because Armenia's economy is entering a period of rapid transition, the estimates of expenditure reductions have more than the usual number of uncertainties. At the outset it will be useful to identify three of the most important sources for these uncertainties. First, there is widespread uncertainty surrounding the level of real economic activity to be expected in 1992 and subsequent years. The blockade of Armenia's borders with Azerbaijan and Turkey is an additional factor besides the uncertainties faced in common with other new republics of the former Soviet Union. If real output follows a low path, open unemployment will grow substantially and increase the associated level of unemployment insurance benefit payments. Second, the pace of future price inflation is not known. The price level rose by about 500 percent between November 1991 and May 1992. To the extent that inflation proceeds at a high pace and that cash benefit payments are fully indexed to inflation, outlays in all four areas will be substantially higher. Third, since unemployment insurance (UI) is a new program, there is no basis of experience to judge accurately how UI payments will respond to higher levels of open unemployment. All three types of uncertainties are substantial in 1992 and they are even larger for years further in the future.

459. The estimate below represent a minimum of savings that should be achieved on the basis of an optimistic economic scenario, that is assuming the blockade is lifted by mid-1993 and that stabilization of the FSU economies and trade payment systems is taking place in a medium or pessimistic scenario. More radical restructuring of the benefit systems would have to take place so as to reduce expenditures while continuing to provide minimum payments to those most in need. The Bank could assist with design and implementation of such restructuring.

460. To estimate savings, the methodology adopted relies heavily on information on actual expenditures in 1991. Expenditures for the old-age-invalidity program and the sickness-maternity program in 1991 have already been displayed in Tables 1 and 2 respectively. Information on 1991 expenditures for children's allowances and student stipends is also available. For unemployment

insurance, however, there was no program in 1991. Here, the 1992 estimates shown in Table 3 provide the point of departure. The estimates of 1992 expenditures shown in that table have been deflated to 1991 levels using a deflation factor of 500 percent, i.e., the 325 million rubles of Table 3 have reduced to 65 million 1991 rubles. The approach places all spending reductions into the time frame of the single year 1991.

461. Table 4 summarizes the estimates. Since the recommendations involve children's allowances paid to those aged 17-18 and student stipends, both of which are categories for on-budget spending, the totals at the bottom distinguish on-budget from off-budget savings. Savings are shown for the years 1993, 1995 and 1997. This reflects the phasing-in of recommendations to raise the retirement age gradually for men to 62 (from 60) and for women to 58 (from 55). Total savings for 1997 are estimated to be 170.0 million rubles which represent 13.1 percent of outlays in these four areas in the absence of the recommended changes. Most of the estimated savings are off-budget. The 35.0 million rubles of on-budget savings reflect reductions in children's allowances and student stipends.

462. Altogether eleven suggested changes in cash benefit provisions are summarized in Table 4. For each recommended change three data items are shown: estimated spending in 1991, the percentage saving to be realized by implementing the recommendation and the amount of savings expressed in 1991 rubles. The details underlying these estimates are given in the following paragraphs.

A. Old-Age-Invalidity Program

Raise the retirement age to 62 for men and 58 for women by 1997.

463. Combined expenditures on old-age and invalidity benefits in 1991 for nonagricultural workers, collective farms and the military totaled 771 million rubles (Table 1). From other data on numbers of recipients and average benefits it is estimated that 91 percent (702 of the 771 million) was paid to old age and survivor beneficiaries and the remaining 9 percent (69 million) to invalidity beneficiaries.

464. Assuming that average remaining life expectancy for men at 60 and women at 55 averages 20 years implies that raising the retirement age for both by one year would save 5 percent on outlays to them over their remaining lifetimes. This is a rough approximation which would be modified if the life expectancy estimate is not accurate. The estimated percentage savings of 9 percent in 1995 and 11 percent in 1997 were derived in a similar manner. Savings are estimated to be 77.2 million (1991) rubles in 1997.

Reimpose benefit offsets for old-age-invalidity beneficiaries with substantial earnings.

465. Starting in January 1992 beneficiaries could receive full benefits regardless of earnings. About one quarter of beneficiaries have some earnings, and in 1991 one quarter of all old-age-invalidity cash benefits totaled 193 million rubles. However, for most recipients earnings are derived from part time work and are quite modest, e.g., less than full time work at the minimum wage. If a benefit offset of 50 percent for substantial earnings were reimposed, certain recipients would continue to work and receive reduced cash benefits while others would forgo benefits altogether. The estimated 5 percent reduction in benefits to those with earnings is a crude guess as to the amount of savings to be realized.

Eliminate longevity premiums for beneficiaries who men work more than 25 years and women who work more than 20 years prior to retirement.

466. These premiums add to the basic benefit 1 percent for each year beyond 25 of pre-retirement work experience. The premiums effectively raise retirement benefits above the maximum. Eliminating the premiums would reduce benefits to the high income segment of the retirement beneficiary population. The estimate of a 3 percent saving is a rough estimate based on data showing that 12-14 percent receive longevity premiums.

B. Sickness-Maternity Program

Retain current replacement rates and longevity thresholds for sick leave but change the measurement of seniority from firm-specific experience to all years of work experience.

467. This would avoid much of the added cost of a 1992 proposal to liberalize sick leave payments. The estimate of the associated savings is 10 percent of what would have been paid in 1991 had the more liberal payment provisions been in place.

Reduce length of paid maternity leave from 140 days to 100 days per birth. Further, improved leave could be provided.

468. Actual 1991 payments of 48 million rubles reflected earlier provision of 100 days per birth. This would have totaled 68 million rubles had the provision of 140 days been in effect in 1991. Reducing 140 days to 100 represents a 29 percent reduction in maternity leave payments per birth.

Raise death benefits from the current level of 100 rubles to 500 rubles.

469. This increase is much smaller than an increase to 1092 rubles which is under consideration. In 1991 death benefits totaled 0.088 million but would have totaled close to 1 million with payments of 1092 rubles per case. Reducing payments to 500 rubles per case represents a 50 percent reduction.

C. Unemployment Insurance and Training

Lower the replacement for the first 8 weeks on UI benefits from 75 percent to 50 percent.

470. Under estimates prepared by the Ministry of Labor for 1992, average monthly benefits for job losers are projected to be 700 rubles and benefits are to be received for an average of 9 months (Table 3). Since the first two months of benefits have a 75 percent replacement rate while the remaining 7 have a 50 percent replacement rate, the implied average level of monthly payments for the two periods are 945 rubles and 630 rubles respectively. If 630 rubles were paid for all 9 months there would be a 10 percent savings in payments. The 1992 projection of 94.5 million rubles (Table 3) has been converted to 18.9 million 1991 rubles using a deflation factor of 5.0.

Eliminate from UI benefit eligibility unemployed workers who are new entrants and re-entrants into the labor force.

471. The Ministry of Labor estimates payments to new entrants and re-entrants will total 9 million rubles and 24 million rubles respectively in 1992. The total of 33 million rubles has been deflated to 6.6 million 1991 rubles using a deflator of 5.0.

Reduce the maximum UI monthly benefit from 3.0 times the minimum benefit to 1.5 times the minimum benefit.

472. This change will affect workers earning more than three times the minimum wage. In 1992 it is estimated that 10 percent of workers in state enterprises will earn at least three times the minimum wage. Thus the percentage savings associated with reducing their benefit to 1.5 times the minimum benefit is modest. An estimate of 2.0 percent has been used.

D. Children's Allowances and Student Stipends

Institute an offset of children's allowances for 17-18 year old who also receive student stipends.

473. Allowances for children aged 1-6 cost 60 million rubles in 1991 (Table 1). An estimate of allowances for 7-18 year old would be 120 million rubles, twice as much since they cover twice as many single years of age, i.e., 12 as opposed to 6. This also implies that 20 million rubles of children's allowances are paid to 17-18 year old. The 40 percent savings in Table 4 is an estimate of the percentage of 17-18 year old who currently receive both payments at the same time.

Reduce student stipends by 25 percent.

474. This change is estimated to save 27 million rubles on a base of 108 million rubles paid to students in 1991.

Table 1. Expenditures by the Old-Age-Invalidity Fund, 1989-1991

	1989	1990	1991	1991 Pct
Family Allowances	0.3	0.4	3.1	0.4
Children's Allowances	1.4	1.5	59.7	6.8
Single Mothers	2.2	2.0	10.5	1.2
Age and Invalidation Benefits	257.3	327.4	618.9	70.6
Collective Farms: Age and Invalidation Benefits	59.6	71.4	112.5	12.8
Military: Age and Invalidation Benefits	13.2	14.3	40.0	4.6
Special Awards to CCCP Members-a	4.1	2.9	0.0	0.0
Divorced Families-b	0.0	0.0	0.0	0.0
Local Budget Social Assistance	3.1	2.8	10.2	1.2
Subsidies to War Veterans	1.6	2.0	2.6	0.3
Postal Fees	7.2	10.3	19.7	2.2
Total Expenditures	349.7	435.0	877.2	100.0

Source: Data from the Armenian Ministry of Labor. Expenditures measured in millions of rubles.

a - Discontinued in 1990

b - Less than 0.1 million rubles

Table 2. Expenditures by the Sickness-Maternity Fund, 1989-1991

	1989	1990	1991	1991 Pct
Temporary Disability and Sickness	57.8	62.8	73.6	41.4
Maternity Leave	31.1	37.1	48.2	27.1
Birth and Infant Allowances	4.1	4.2	11.1	6.3
Funeral Expenses-a	0.0	0.0	0.1	0.0
14-18 Percent Fund	9.6	15.4	32.2	18.1
Capital Construction	2.0	2.1	4.0	2.2
Staff Salaries	0.7	0.8	1.5	0.8
All Other	0.0	0.0	7.0	3.9
Total Expenditures	105.4	122.4	177.7	100.0

Source: Data from the Armenian Ministry of Labor. Expenditures measured in millions of rubles.
a - less than 0.1 million rubles in 1989 and 1990

Table 3. Projected Expenditures for the Unemployed, 1992

Unemployment Compensation				
Reason for Unemployment	Number of Ben (000s)	Average Monthly Benefit	Benefit Duration (months)	Total Outlays (millions)
Layoffs	15.0	700	9.0	94.5
Quits	10.0	400	7.0	28.0
Re-entrants	10.0	600	4.0	24.0
New Entrants	5.0	600	3.0	9.0
All Reasons	40.0			155.5
Unemployed in Training				
Training Costs	24.0			96.0
Stipends	24.0			57.6
Total	24.0			153.6
Employment Office				16.0
Staff Compensation				
All Expenditures				325.1

Source: Armenian Ministry of Labor. Data in millions of rubles.

Table 4. Estimated Savings from Selected Reductions in Cash Benefits

	1991 Benefits	Percent Savings	Savings (mill) (mill)
Old-Age-Invalidity Program			
Raise retirement age:			
1993 Men 61, Women 56	702	5	35.1
1995 Men 62, Women 57	702	9	63.2
1997 Men 62, Women 58	702	11	77.2
Reimpose benefit offsets for recipients with earnings	193	5	9.7
Eliminate longevity premiums	702	3	21.1
Sickness-Maternity Program			
Reduce replacement rates for sick leave to 1991 levels	81	10	8.1
Reduce length of paid maternity leave from 140 to 100 days	68	29	19.7
Raise death benefit from 100R to 500R, not to 1020R	1	50	0.5
Unemployment Insurance-Training-a,b			
Lower UI replacement rate from to 50 percent in first 8 weeks	75 (94.5)	18.9	10 1.9
Eliminate benefits for reentrants and new entrants	6.6 (33.0)	100	6.6
Reduce UI maximum benefit from 3 to 1.5 times minimum benefit	18.9 (94.5)	2	0.4
Children's Allowances-Student Stipends			
Institute child allow offset for 17-18 year old with stipends	20	40	8.0
Reduce student stipends 25 pct	108	25	27.0
Total Savings by Year	Off Budget	On Budget	All Savings
1993	103.1	35.0	138.1
1995	131.2	35.0	166.2
1997	145.2	35.0	180.2

a - 1992 estimates (shown in parentheses) expressed in 1991 rubles

b - Estimated savings based on 80,000 new unemployment occurrences.
Expenditures and savings double with 160,000 occurrences.

ANNEX VIII

ENERGY SECTOR

A. Introduction

475. This annex concerning the issues and strategy in the energy sector first presents an analysis of the past and present situation in the sector, then goes on to outline projected energy requirements based on the macro economic growth scenarios described in chapter II, discusses issues in each of the subsectors, (a) electric power and district heating, (b) petroleum, and (c) natural gas, LPG, and coal, and concludes with recommendations for a strategy to cope with the transition from the current situation to a restructured, less energy intensive economy.

B. Situational Analysis and Energy Sector Issues

Current Situation

476. The energy sector is currently caught up in the vicious circle of economic decline. By the end of May 1992, gas supplies from both Azerbaijan and Georgia were cut off and all stocks depleted. Transportation fuels, although available (legally) through the private sector, were in short supply and prices reflected their scarcity selling for about two and a half times the government controlled price to state enterprises. Due to a rail transport strike in Georgia, heavy fuel oil (mazout) supplies were insufficient to meet even a reduced daily requirement for electricity generation and stocks had been drawn down to the point that only about a day's supply remained. As a result, Government was compelled to order further load shedding in the industrial sector as well as to order full utilization of all available hydro plants which would then result in a further draw-down of Lake Sevan.⁸¹

477. The entire energy sector is physically deteriorating due to a lack of maintenance and repair. The power sector is being rapidly decapitalized not only because of a lack of maintenance but also due to damage to generators and distribution networks caused by over-loading. Most of the damage sustained during the 1991/92 winter has not yet been repaired because spare parts and materials inventories have been exhausted. The district heating systems, very inefficient even when built, suffer heat losses up to 60% due to low combustion efficiency, inadequate water treatment, lack of insulation, steam and water leaks among many other factors.

478. Government has increased prices for both electricity and district heating in the face of increased energy supply costs. C.i.f. petroleum and gas prices for official supplies have gone up to an amount 20-30 times the average 1991 level due to price increases by Russia and are now about two-thirds of world prices. Fuels supplied by the private sector sell at about world price levels. At the same time, Government has also attempted to maintain a high degree of cross-subsidization to household consumers from industries as real household incomes continue to fall with inflation and unemployment. The overall level of cost recovery is inadequate and an additional squeeze has been put on maintenance budgets leading to yet further deterioration in the quality of service beyond the load shedding caused by fuel shortages.

^{81/} Government has been trying to restrict the use of hydro energy in order to raise the level of Lake Sevan to reverse the ecological damage that has occurred from the draw-down prior to 1976.

Institutions

479. Following independence, the Government of Armenia consolidated responsibility for energy sector policy and operations under the direct responsibility and/or supervision of the Ministry of Energy and Fuel (MEF). The Minister of Energy and Fuel in turn reports to the State Minister for Energy and Fuel, Industry, Telecommunications, and Mining. MEF functions as a holding company for the operating entities within the sector including ARMGAZPROM (gas transmission and pipelines), ARMGAS (gas distribution), ARMOIL Products (petroleum products), ARMENERGO (electric power and district heating), the nuclear power plant, and seven research and technical institutions which formerly reported to organizations outside Armenia.

Energy and the Environment

480. Concern for the environment is strong in Armenia and environmental legislation has already been passed by Parliament. As Armenia has no indigenous production of fuels, combustion of fuels is the main source of environmental problems. As natural gas is a clean burning fuel it is non-polluting.⁸² Temperature inversions in Yerevan combined with the high sulfur (3-5%) mazout used by power plants and industrial boilers (all in need of combustion and emissions controls), low quality diesel oil and gasoline used by badly tuned vehicles result in highly visible and severe atmospheric pollution which causes respiratory illness. The extent to which fuel handling and storage cause environmental problems has not been determined, however, the impact would be localized. The main risk is contamination of soils and groundwater.

481. The draw-down of Lake Sevan by 18 m from its original level in the period 1936 to 1976 was stopped because the ecology of the lake was noticeably changing with increasing water temperatures as the lake became shallower. The government has been attempting to raise the level by 4 m; however, fuel shortages have forced a further draw-down for power generation. Fuel requirements (and costs) in the future will be greater than otherwise would be the case to permit reduced hydro generation from the Sevan-Hrazdan cascade thereby raising the level of Lake Sevan.

Nuclear Power Plant

482. The nuclear power plant (NPP) has been shut down since March 1989 following the 1988 earthquake.⁸³ According to the assessment of the IAEA mission⁸⁴, there are no apparent

82/ Leakage of natural gas, however, is an important source of green house gas emissions since methane (the main natural gas component) is about 30 times more potent as CO₂.

83/ The nuclear plant is a Soviet built VVER 440, model 230 in two units (2x440 MW). This model (not the Chernobyl design) has serious design flaws which could be economically rectified according to previous IAEA studies. No damage was sustained during the earthquake in part due to seismic upgrade work that had previously been carried out.

84/ A joint mission of the Bank and IAEA visited Armenia in May/June 1992. The Bank mission carried out an Energy Sector Review while the IAEA assessed the condition of the plant and the requirements for safety upgrades should recommissioning be warranted.

insurmountable conditions that would preclude further consideration of the option to recommission the plant. The government is not pressing for the nuclear option but is considering it only as a matter of necessity to gain some degree of energy security.⁸⁵

483. Recommissioning the NPP would pose increased environmental risk as recognized by the people of Armenia. Indeed, under a resolution of Parliament, a public referendum is required before any decision to recommission the plant could be taken and, according to polls, over half the population is opposed.

484. Furthermore, the plant does not meet international standards of safety. At their July 1992 conference, the G-7 First Ministers organizations have recommended a phase-out as soon as practical of all unsafe nuclear plants of Soviet design including the VVER 440/230, the model in Armenia. The cost of recommissioning the plant including safety upgrades to permit about five additional years of operation would be in the order of US\$60-100 million. Use of funds elsewhere, notably in energy efficiency improvements and generating plant rehabilitation, would yield higher returns. In any event, the demand projections (paras. 484-485) indicate that the nuclear capacity would not be required to meet Armenia's own requirements for electricity provided that (i) the 300 MW Hrazdan 5 conventional thermal plant is completed in 1994 and (ii) a reliable supply of gas and mazout can be assured.

C. Energy Supply and Demand

485. Armenia's total energy supply requirement peaked in 1988 at about 10,100 ktoe (thousand tones oil equivalent) as shown in Figure 1 and Table 1. While Armenia imports 100% of fossil fuel requirements, it exported about 2900 Gwh or 20% of total electricity generation up to 1989 when the nuclear plant was shut down. By 1991, Armenia became a net importer of electricity (1500 Gwh/yr or about 17% of domestic generation) as gas supplies via Azerbaijan were restricted. Internal production (hydro plus nuclear when operating) accounted for about 15% of Armenia's total energy requirements.

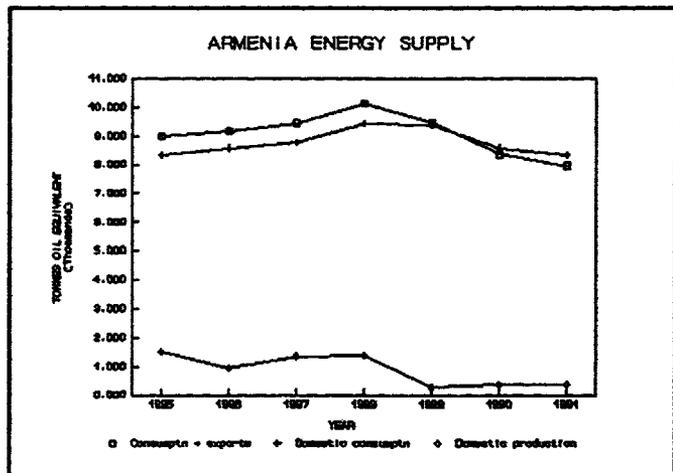


Figure 1 Historical Energy Supply

^{85/} MEF has requested technical assistance from the Commission of the European Community to carry out an inspection of the primary circuit of the NPP; however, much more inspection and preparatory work would be required. In addition costs indicatively estimated at US\$50-60 million would be needed for upgrading plant safety, rehabilitating existing equipment, refuelling, and recommissioning the plant.

Table 1
Armenia Energy Supply

1. TOTAL ENERGY SUPPLY	1985	1986	1987	1988	1989	1990	1991
-----	----	----	----	----	----	----	----
A. IMPORTS	(thousand tones oil equivalent)						
Oil Products							
LPG	35	34	32	30	27	26	21
gasoline	687	726	720	890	964	971	993
diesel	414	385	386	395	731	660	518
kerosene	9	11	9	11	11	13	13
jet	157	165	196	200	196	209	230
mazout	2367	2651	2400	2221	1872	1980	2261
other (bitumen, fuel oil)	155	163	175	217	298	305	320
sub total	3824	4134	3919	3963	4099	4164	4355
Gas (net imports)	3462	3845	3955	4439	4764	3551	3072
Coal	213	221	212	324	316	274	169
total imports	7499	8200	8086	8726	9178	7988	7596
B. DOMESTIC PRODUCTION							
Nuclear	1122	643	1011	1026	0	0	0
Hydroelectricity	378	315	342	358	268	363	361
C. ELECTRICITY TRADE							
Net exports	682	593	682	680	77	-214	-366
TOTAL NET FOR CONSUMPTION	8318	8564	8756	9430	9370	8565	8323
2. ELECTRICITY SUPPLY	(thousand toe)						

Generation							
mazout	1738	2166	2015	1624	1392	1987	1700
gas	836	1040	903	1297	1707	773	829
nuclear	1122	643	1011	1026	0	0	0
hydro	378	315	342	358	268	363	361
Total	4073	4164	4270	4303	3367	3122	2890
Electricity supplied by:			GWh				
thermal generation	8007	10150	8999	8947	9693	8807	7970
nuclear	4808	2753	4331	4394	1177	0	0
hydro	1619	1349	1464	1534	1149	1555	1546
Total generation	14434	14252	14794	14875	12019	10362	9516
imports	0	0	0	0	0	920	1572
exports	2925	2547	2928	2918	330	0	0
Net electricity supply (GW)	11509	11705	11866	11957	11689	11282	11088

Note: Thermal equivalent of hydro, nuclear, and imports/exports - 1 GWh = 233 toe

Source: Ministry of Energy and Fuel

Energy Intensity of the Economy

486. As with other FSU and East European countries, the energy intensity of the economy (koe/000 US\$ of GDP) has been several times that of countries with higher income per capita. When compared with countries at the same or higher level of GDP/capita, however, Armenia compares favorably as shown in Figure 2.

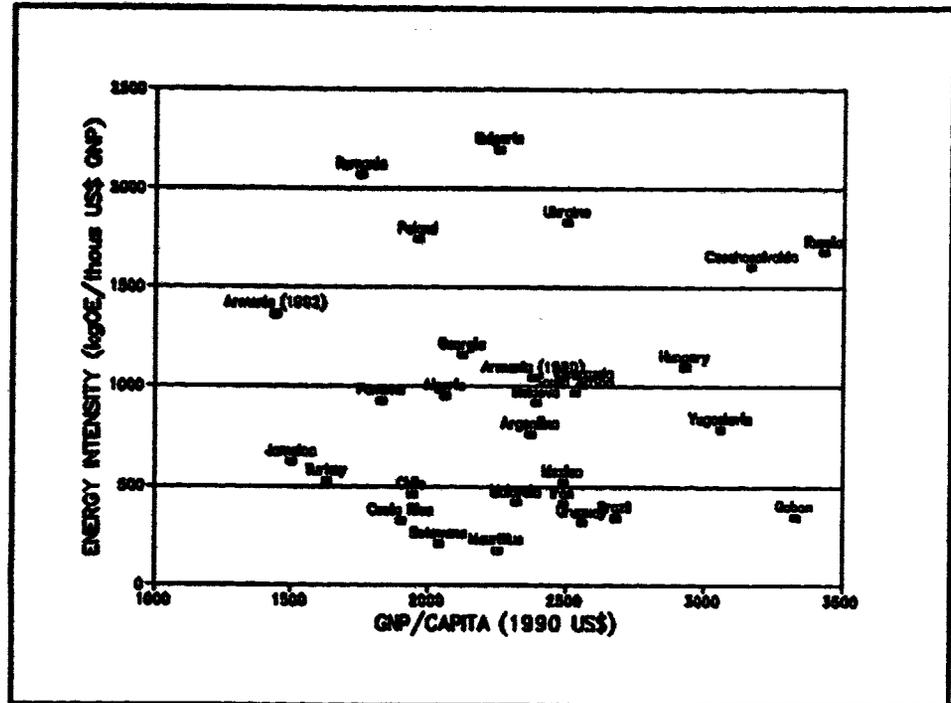


Figure 2: International Comparison of Energy Intensity

487. In 1990, total primary energy consumption was 2,666 koe/capita which is similar to Ireland (2,653 koe/cap) and the former Yugoslavia (2,409). Energy intensity in Armenia was 1,244 koe/000 US\$ GDP⁸⁶, close to that of Hungary (1,034 koe/000 US\$ GDP) and Czechoslovakia (1,795 koe/000US\$ GDP). In 1992, however, energy intensity rose sharply because of the decline in economic activity without a corresponding drop in energy use.

Composition of Demand

488. The composition of end-use consumption is difficult to estimate because of varying definitions of end-use category as reported by different organizations. Table 2 does, however, indicate the relative importance of each energy source in end-use consumption in the unconstrained situation of 1990.

^{86/} GDP estimate in US\$ is based on ratio of PlanEcon GNP and CEM mission estimates of GDP in Rubles times and the Bank's estimate of GNP in US\$. GDP is estimated to be about 90% of GNP.

Table 2. ARMENIA: Composition of End-Use Consumption by Energy Source (1990)

	Nat'l Gas	LPG	Petroleum Products	Electricity	Total (000 TOE)	Percent of Total
Industry	1011	3	591	245	1850	29
Population/ Households	1121	21	333	529	2247	35
Commercial/ municipal	646	2	367	95	1110	17
Official transport	0	0	461	33	494	8
Agriculture	0	0	458	151	589	9
Construction/ Other	0	0	19	76	95	2
Total	2706	31	1631	776	5143	100

Source: MEF and mission estimates.

D. Future Energy Scenarios and Demand Projections

489. Energy demand projections have been prepared on the basis of the medium economic scenario outlined in Volume I and illustrated in Figure 3. With the drop in economic output and the high fixed component of energy use, especially for heating, energy intensity has doubled compared with the 1990 level but is projected to return to the 1990 level by about 2000. This reduction could arise with the return to economic growth, the beginning of restructuring and with vigorous efforts to improve energy efficiency as a key component of the Government's energy sector strategy.

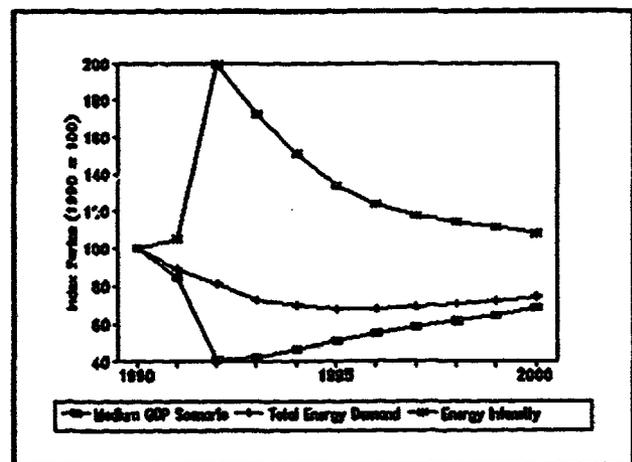


Figure 7 GDP and Energy Demand Projections

490. Assuming that there would be no supply constraint from mid 1993 onward, overall energy consumption is projected to decline to about 68% of its 1990 level of 8.9 million TOE by 1995/96 and then begin to rise reaching three-quarters of the 1990 level by 2000. The composition of demand by fuel type and total energy demand in TOE is indicated in Figure 8. With the lifting of the blockade, gas consumption could displace oil products particular in power generation, heating and industrial use. Large boilers in Armenia are equipped for dual firing with gas and mazout so that there is considerable flexibility for fuel substitution depending on availability and cost.

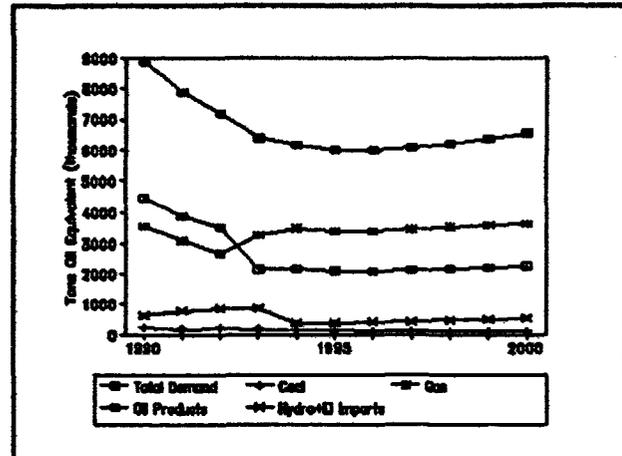


Figure 8 Composition of Energy Demand and Supply

Imported Energy Prices

491. As Armenia imports all fossil fuel requirements, it must pay the price demanded (or negotiated) with external suppliers. Russia is expected to be the price leader on fuels supplied from within FSU. The pricing of fuels to be supplied in the future from Iran (mazout under a barter deal) and natural gas is also to be based on world prices.

492. While Russia's pricing policy continues to evolve, it is possible that hydrocarbon prices will rise to the world price in 1994. Such price increases will clearly have a strong impact on the balance of payments and will have to be passed on to consumers as part of the price reform policy. In the demand projections, the price effects are taken into account in the assumptions concerning the drop in energy intensity of the economy due to restructuring in the economy and energy conservation efforts.

Energy Resources

493. Reviews in early 1993 of earlier Soviet exploration data indicate sufficient (about 8-10 years) reserves of oil and gas to warrant immediate further development. Other indigenous energy resources which may be economic to develop are limited to hydro, peat, and coal. The Government is also interested in developing renewable sources of energy including solar, windpower, and geothermal; however, it is unlikely that in the near term these sources could be economic or contribute substantially to energy independence.

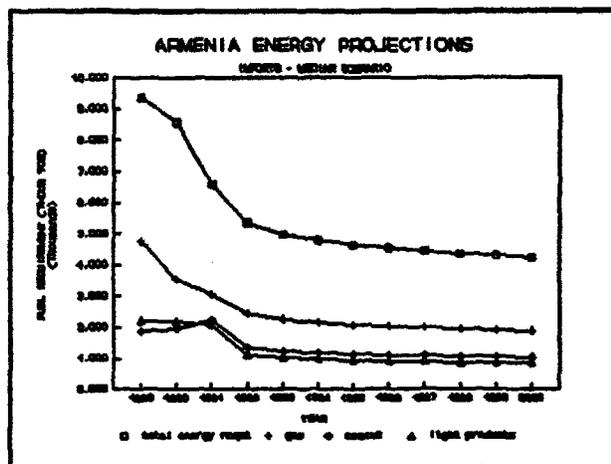


Figure 5

494. New hydro plants have been studied to varying degrees at about 40 sites. Some of these plants appear to be economic but others require further examination. Altogether the plants could provide about 700 MW of capacity and 2200 Gwh/yr to bring total hydro production to about 30-33% electricity requirements at the historical 1985-91 level.⁶⁷

495. Indigenous lignite and coal are available with total verified reserves of about 5 million tones. Open pit mining of lignite would be required, while hard coal would be mined underground. The economic viability of coal development requires further investigation. Peat is also available and could be used without much development as a household fuel mainly in single family dwellings. Environmental problems are evident in connection with the development of either peat or coal.

496. In the near to medium term energy conservation presents the one of the most viable opportunities to increase effective energy supply at a cost much less than the cost of supply. Conservation and energy efficiency improvement opportunities are evident in supply (heat and power production and distribution) and in end-use. These possibilities are further discussed in the sections dealing with the subsectors.

E. Electric Power and District Heating Subsector

Introduction

497. By early June 1992, fuel shortages reduced thermal electric power output to 700 MW out of an effective installed thermal capacity of about 2030 MW (Table 3). Maximum yearly demand occurs in December due to additional heating and lighting requirements and was about 2100 MW in 1990. Even if fuel were available, however, unconstrained demand would be below 1990 levels due to the decline in economic activity. In the past, nuclear and existing hydro plants could supply about 50% of

87/ Plants sizes range from one at 138 MW to many at 1 MW.

Armenia's own electricity requirements (Table 1); however, with the nuclear plant shut down, existing hydro supplied only 14% of requirements in 1990/91.

Subsector Organization

498. ARMENERGO was the entity responsible for both electric power and district heating throughout the country until March 1992. At that time responsibility for the distribution of electricity and for the operation of district heating systems in Yerevan was transferred to the Municipality of Yerevan. MEF functions effectively as a holding company for the power and district heating subsectors in as much as the state is the owner of the assets and a Board of Directors within MEF is responsible for major decisions and budget control.

499. The government would like to privatize ARMENERGO and has instituted a program of contract plans with the management and staff of 25 power stations and other major transmission and distribution facilities in the operating regions. While the ultimate objective under consideration is to replace the contract plans with privatization of the same facilities, neither the details or implications of such a scheme have been fully considered by the government. Until a degree of economic stability with the country can be achieved and power sector operations can reach a more normal steady state condition, particularly with regard to financial performance, it is unlikely that any significant degree of privatization could be achieved. Efforts would be more effective in strengthening ARMENERGO to become a viable state-owned enterprise.

District Heating

500. Centralized district heating supplies the majority of heating for apartments and houses in Armenia as well as for greenhouses in the agricultural sector. The systems operate as isolated networks supplied by individual boilers or in conjunction with thermal power plants thereby increasing their overall thermal efficiency to as much as 85%. Losses in the heat transmission and distribution networks are estimated, however, at 40%-60%. The shortages of fuel during the winter 1991/92 necessitated the complete shut down and draining of the Yerevan and other district heating systems in mid January 1992. A large portion of the population had no alternative means of heating except to use electric heaters. The increased use of electric heaters caused overloads on many distribution lines with the result that 300 distribution transformers in Yerevan alone were blown out and lines were damaged at an estimated cost of R 500 million (US\$ 5 million). This damage has not yet been repaired due to a lack of spares and funds for replacement equipment.

501. Heat consumption is metered for large consumers such as industries; however, consumption by the population (apartments, houses, government offices) is not. There are no controls on radiators or room thermostats, hence no means of regulating temperature. If the temperature is too high (often the case for dwellings closest to the boiler house) the only control is to open a window. Because the systems are not properly balanced, about one-quarter of the most distant households do not receive enough heat. Households are charged at a flat rate per square meter per year at rates which are considerably below the cost of supply.

502. In the short run it will be necessary to reduce losses in the district heating systems and improve the overall operating efficiency. In the longer term, a feasibility study is needed to assess the economic merits of replacing the district systems with gas or light heating oil-fired boilers in apartment

buildings and houses. District heating based on heat recovery from power stations, however, will likely remain economic given the large investment in the distribution network.

Existing Power System Facilities

503. **Generation.** ARMENERGO is operates and maintains all generating facilities except the nuclear power plant (NPP) (815 MW). Total nominal installed capacity is 2700 MW excluding the NPP which has been shut down since 1989. Derating due to age and operating constraints brings the effective installed capacity to about 2030 MW. With allowance for maintenance and forced outages plus the non-availability of the Sevan-Hrazdan Cascade during the winter, the firm capacity to meet the annual maximum demand is about 1650 MW as shown in Table 3.

Table 3. ARMENIA: Installed Generating Capacity

Type of Plant	Number of Units and Period of Commissioning	Nominal Installed Capacity (MW)	Effective Derated Capacity to Meet Annual Load (MW)	Available Capacity to Meet Annual Peak Demand (MW)
Thermal				
Hrazdan	4 (1971-74)	1100	1080	860
Yerevan	6 (1963-67)	550	480	370
Kirovokan	2 (1964-76)	96	41	22
Sub total		1746	1601	1250
Hydro				
Sevan-Hrazdan Cascade	6 stns (1936-61)	527	0	0
Vorotan Cascade	4 stns (1970-84)	402	402	382
Other Hydro	1 stn (1932)	24	24	23
Sub total		953	426	405
Nuclear	2 (1971-76)	815	0 (shut down)	0
Total		3515 ¹	2030 ¹	1650 ¹

Note: 1. Rounded

504. The thermal power stations can burn either mazout or gas and provide steam and hot water for industrial use and district heating in addition to electricity. Many of the plants are more than thirty years old and in Yerevan are near the end of their service lives. Furthermore, the civil works of Yerevan plant are in poor condition and no seismic design standards were incorporated in the plant design. Although life extension at this plant is possible, and indeed work is underway to replace turbine/alternator sets, the general condition of the plant is such that it is likely to be more economic to retire it rather and replace it with a new plant. Construction of the Hrazdan 5 and 6 units (2 x 300 MW) began in 1988 and approximately US\$60 million would required to complete unit 5 which is 60% complete.⁸⁸ Civil works for units 6-8 are partially complete (10-20%). A further review of the need for

^{88/} Part of the boiler, turbine and generator are on site and orders have been placed with CIS firms for the remaining equipment. The US\$60 million would cover equipment, construction, IDC, and contingencies.

and timing of the Hrazdan 6 to 8 units is needed to compare with the benefits of life extension of existing plant in view of the overall financing constraint.

505. **Limitations on the operating regime of the installed hydro capacity in the Sevan-Hrazdan cascade and the lack of seasonal storage capacity greatly restricts the use of these plants.** Water release from Lake Sevan is geared to the irrigation needs and operation of the hydro plants is minimal with the result that no firm capacity is available to meet the annual system peak during the winter. It is likely, however, that greater benefit from the hydro resource can be obtained through more efficient water management. It may also be found that, given the increased fuel costs, and hence opportunity cost of water, that water is more valuable at the margin for hydro generation than for irrigation.

506. **Load Shedding.** Because of the lack of fuel and non-availability of a number of thermal units, about 600 MW total load was being shed in May 1992 (out of a normal (1990) load of 1400 MW) by both six hour rotational cuts and under-frequency operation.⁸⁹

507. **Transmission Network.** The transmission network was designed as part of the InterCaucasus Power Pool which in reality is no longer functioning due to regional conflicts and power shortages. As a result, the load carrying capacity of the Armenian network is more than adequate for projected loads. Indeed, the maximum load in the peak winter season did not exceed 70% of line load capability. Interconnectors exist between Armenia and (a) Georgia (220 kV, 250 MW), Azerbaijan (330 Kv, 400 MW; 110 Kv, 50 MW), and Turkey (220 Kv, 300 MW, not in service). In addition there is a 110 Kv line to Karabakh and 2 x 220 Kv, 500 MW line to Nakhichivan for wheeling power from Azerbaijan. As a result of the conflict with Azerbaijan, no exchange or wheeling is taking place. Although there is an existing contract with Russia to send 860 GWh (about 10 MW on a continuous basis) via Georgia, it is expected that not more than 500 GWh will eventually arrive in Armenia because of the shortages in both Georgia and Russia.

508. **Distribution.** Total low voltage line length in Armenia is about 40,000 km with about 9000 transformers of average size of 322 kVA. Transformers and cables are manufactured in Armenia; however, both are constructed with aluminum wire which causes increased technical losses. In fact many fires in residences have been cause by faulty connections of aluminum cables.

509. **The Yerevan Municipal system, which became an autonomous body in March 1992, is the largest distribution network.** Power is supplied in bulk by ARMENERGO and distributed by the Municipal Corporation. Technical losses were estimated at 13% of supply to the network while a further 10% was unaccounted for.

510. **Transformers are generally oversized; however, during the winter of 1991/92 the Yerevan distribution system was 200 to 300% overloaded with the result that some 320 transformers and 300 km of underground cable are now severely damaged or, in many cases, beyond repair.** About two-thirds of the transformers are yet to be repaired or replaced. Overloading occurred because of the increased use of electric heaters given the lack of district heating or gas for space heating and will recur if adequate fuel supplies are not available during the next winter.

^{89/} Normal frequency is 50 Hz but a frequency drop to 48 Hz with a reduction in load supplied of about 200 - 300 MW. Under frequency load shedding is being accepted as an alternative to physically disconnecting even more load.

511. **Metering and Billing.** All connections are metered for electricity consumed (kWh) but maximum demand (kW) meters are not used even for large industrial consumers. Maximum demand meters should be installed as part of the much needed tariff reform. Residential consumers are responsible for reading their own meters each month and making payment to the local bank. If the bills are not paid on time, the bank can then collect the estimated bill from the customer's account. In view of this practice, many consumers do not keep deposit accounts with banks.

512. Prior to the sharp increases in electricity tariffs ARMENERGO's accounts receivable averaged about two months' billing. Receivables have grown considerably and about 60% of household consumers did not pay their bills during the past winter.

Investment Requirements

513. Based on the demand projections outlined above additions in new capacity would not be required before the end of the decade. Indeed, expenditure in the power sector should be directed towards avoiding expenditure for new capacity through energy efficiency improvements on both the supply and demand side, rehabilitation and life extension of existing plant. As indicated above, it may be more cost effective to retire the Yerevan plant or some of the units and complete the Hrazdan 5 and 6 units. Minor rehabilitation of existing plants could defer the need for Hrazdan 5; however, fuel efficiency improvements, improved reliability, and avoidance of unexpected repair costs through operation of a new plant may justify its early completion.

514. A minimum of some US\$60 million/yr is needed for normal maintenance of the Armenian power system and it is evident that much less than this amount has been spent. As a result, a back-log of maintenance exists and expenditures in the order of US\$ 200 million are needed over the next five years including an immediate need of US\$25 million for critical spare parts and repair materials to maintain even the present level of service. Priorities are greatest for generating plant and distribution networks. Minor amounts are needed for the transmission network.

F. Petroleum Subsector

Introduction

515. Armenia has no oil refining capacity and imports all of its petroleum products from refineries in the Russian Republic. There are no petroleum pipelines and all products are shipped via rail with the occasional small shipments by tank-truck. In 1990 total consumption of refined products was 1.8 million tones plus an equal quantity of mazout.

Subsector Organization

516. Armoil Products Company is the government owned oil products importing, storage, and distribution organization for Armenia. There are 1500 employees in 12 departments in the central administration which cover all areas relating to product procurement, quality control, distribution, maintenance and capital investment. Armoil operates 18 major storage facilities throughout the country,

and other smaller facilities including about 250 service stations. These stations are under the supervision of the managers of the storage terminals which supply them or, in the case of 24 distributions to special enterprises in Yerevan, the central administration.

517. After 1990, ARMOIL began buying oil products directly from the individual FSU republics. General contract terms are still negotiated between the governments of the republics. The contracts specify annual quantities to be delivered, current prices, and payment terms. Quantities can be renegotiated by the parties during the course of the year as conditions change. Renegotiations may be done at the operating levels, subject to government approvals.

518. Prices are set according to the seller's price list at the time of contract agreement. The seller may change the price at any time without notice to the buyer. A contract buyer, however, has the right to buy up to 20% more than his contract quantity at "free" prices, which will be higher than the original contract prices. These "free" prices appear to resemble spot prices, and are generally set by market forces within the FSU. Despite their rapid rise over the past year, they are still generally below world market prices for most petroleum products.

519. Payment terms are on delivery, with the buyer's bank in Armenia paying the seller's bank in Russia upon receipt of documents that the products have been shipped in good condition. The refineries do not handle these arrangements themselves, but rely on the Russian oil sales organization Rus Neftzi Productzi (RNP), which is directed from Moscow, and has regional sales offices where the refineries are located. The regional office of RNP will handle all aspects of the shipping (usually by rail) to the buyers specified destinations. Armoil is in constant communication with the RNP office located near the Grozni refinery, based on a month to month plan of shipments and receipts which is continuously in flux due to changing rail schedules, refinery operating problems, payment issues, and delays caused by political or other disturbances.

Petroleum Product Pricing

520. In general, the Finance Ministry sets fuel prices for official sales based on costs. In the present crisis, however, events seem to have overtaken any attempt to rationalize pricing policies. Since January 1992, the price of gasoline has risen to more than 9300 rubles per ton, with transportation costs now at 360 rubles per ton. Armoil then sells it for 12,000 to 13,000 rubles per ton to priority customers designated by the government ministries. These customers include critical transport, municipal services, agriculture, and priority industries, (probably including the military, although not explicitly stated). Since all of these customers are government entities, the pricing to each of them appears to be based simply on ad hoc decisions. The average Armoil markup on these sales is about 30%.

521. Armoil's gross margin (termed "profit") of around 3000 rubles per ton is first taxed at 28%, or around 800 rubles per ton, leaving a profit of 2200 rubles per ton before depreciation. Armoil is allowed to deduct 10% of its acquisition costs for capital recovery, or around 900 rubles per ton, leaving 1300 rubles per ton as net profit. Armoil then pays another 25% tax, or 300 rubles per ton, leaving the company with 1000 rubles per ton in after tax profit, or 1900 rubles per ton in net cash flow (profit plus depreciation).

522. Since January 1992, Armoil has stopped selling gasoline to the public who must buy from the private sector dealers. These dealers purchase the gasoline themselves in Russia, Georgia, or even

Azerbaijan, bring it in by truck to Armenia, and distribute it either through Armoil service stations or directly on the street with small tankwagon trucks.

523. By May, 1992 retail prices for gasoline sold by the private sector had risen to 25-30 rubles per liter (30,000-36,000 rubles per ton) from 0.35-0.40 rubles/liter two years ago. Because of scarcity, private sector vendors receive a gross margin of 0.12-0.27 rubles/liter before distribution costs. Taxes of 28% on the gross margin are supposed to be paid to the government but in reality there is little way to monitor prices or volumes.

524. Mazout for industry and the power sector and aviation fuel are also imported by Armoil. Markups on c.i.f. cost varies from 5-10% depending on the customer with industry paying the highest rates.

Petroleum Sector Privatization

525. The government is planning to privatize Armoil in the near future. The government will retain some ownership, possibly as much as 50%, while the balance will be sold first to employees and second to the public at large, including foreigners. The share price has not yet been determined. The privatized Armoil will be required to sell petroleum products to government owned enterprises at controlled prices, but all petroleum product sales to the private sector will be at market determined prices. Armoil will not have a monopoly on petroleum product imports or sales, but will compete with others who wish to enter the business in Armenia. Armoil will operate independently with no control by the Energy Ministry.

526. The Armoil organization and facilities appear reasonably well positioned to be a successful private company although the monopsony position of the government for a major portion of ARMOIL's sales at controlled prices could reduce ARMOIL's profitability. A major problem which will arise will be continuing access to foreign exchange and the value of the ruble. As long as Armoil buys petroleum products from Russia in rubles, then no foreign exchange problem will arise. To the extent, however, that Armoil may choose to buy from other suppliers in the future, when Russian oil prices reach world market levels, hard currency will be required.

527. Armoil has virtually no experience with petroleum product procurement outside of Russia. If, in the longer run, Armoil seeks to purchase outside of Russia using the Black Sea port of Batumi or via rail links with Iran, then technical assistance regarding international oil contract negotiations, lifting of cargoes, and oil trading will be needed.

Investment Requirements

528. Relatively few investments in new facilities are needed in the petroleum sector compared with the power and gas sectors. As with these sectors, however, there is a need to catch up on the backlog of routine maintenance and repairs to ensure the achievement of full service life from the plant. Construction of a petroleum refinery is under consideration; however, it would confer no significant

security of supply and, given its high cost, would not be economically justified.⁹⁰ A petroleum product pipeline from Batumi might be justified as an alternative to rail transport; however, a feasibility study of this option would be required.

G. Natural Gas Subsector

Introduction

529. With no gas resources of its own, Armenia is totally dependent on imports from Turkmenistan through pipelines entering via Azerbaijan and Georgia. Throughout the eighties, gas consumption continued to rise, and in 1989 reached its peak of 5.87 Bcm/yr (51% of total primary supply) with about one third used for power generation, and the remainder consumed by the industrial, commercial and the residential sectors. The widespread availability throughout Armenia has resulted in high dependence by the population (63% of whom have access), particularly for residential heating. Piped natural gas supply is augmented by road transport distribution of bottled LPG and coal.

530. As with other fuels, gas prices before independence were well below world prices leading to excessive demand. In part as a result, Armenia is now faced with a number of key issues and investment decisions in the gas subsector including the need to:

- (i) diversify gas imports to improve national security of supplies;
- (ii) improve natural gas storage capability within the country as an insurance against external supply interruptions.
- (iii) restructure consumer prices and install meters on all residential connections.
- (iv) repair or replace much of the transmission and distribution infrastructure which suffered considerable damage in the 1988 earthquake; and
- (v) reform and restructure the gas subsector institutions.

531. The most pressing need of all, however, is to resume gas deliveries via Georgia and Azerbaijan. Clearly resolution of this matter is not entirely within the control of Armenia. Gas subsector operations are currently showing considerable inefficiencies because of overstaffing, lack of gas resulting in reduced revenues, lack of plant maintenance, lack of foreign exchange for spare parts and lack of capital for modernization and rehabilitation.

Gas Subsector Organization

532. Gas subsector operations are carried out through the Armenian Gas Production Corporation (ARMGAZPROM) and the Armenia Gas Corporation (ARMGAZ), both of which are fully owned by the state and report to the Ministry of Energy and Fuel. ARMGAZPROM has primary responsibility for the import, storage and high pressure transmission of natural gas. The Trans-Caucasian Construction Trust (TCCT) is a division within ARMGAZPROM and has considerable experience and

^{90/} The cost of the refinery is roughly estimated at US\$500-600 million for a capacity of 6 million tones of crude per year. An additional US\$250 million would be required for a crude oil pipeline. A products pipeline would have a similar cost.

capability in construction of pipelines and related facilities at home and abroad. TCCT is appears to be a good candidate for privatization especially if linked with the institute for design and engineering service in the gas sector, formerly a branch of a Soviet organization with headquarters in Kiev.

533. The main responsibilities of ARMGAZ are the distribution of gas to the end user and the maintenance, repair and development of the low pressure distribution networks. In addition to distribution of piped gas, ARMGAZ is responsible for the distribution of bottled LPG to end users, which is purchased from ARMGAZ. The Office of Solid Fuel was also incorporated into ARMGAZ in 1991 and is responsible for importing and distributing about 0.5m tons of coal annually.

534. The subsector employs some 10,500 workers serving about 600,000 consumers, which include the natural gas, LPG, coal distribution and construction operations. This staffing results in an overall consumer to employee ratio of about 60:1 compared with a ratio of 200 to 300:1 for gas industries in Western Europe, suggesting that the sector is considerably overstaffed even allowing for the smaller size of system.

Natural Gas Consumption

535. **Past Consumption.** The pattern of natural gas and LPG consumption in recent years is shown in Annex 2. Until 1989, there were no supply constraints and total consumption of natural gas reached its peak of 5.87 Bcm/yr. Natural gas is of particular importance for power generation, where it is used to generate power and heat in the Hrazdan, Yerevan, and Kirovakan power stations. Together these have a nominal installed capacity of 1750 MW, or 65% of Armenia's total installed capacity excluding the nuclear.

536. The shortages of natural gas have resulted in a decline in industrial consumption from 1.7 Bcm/yr in 1988 to 1.0 Bcm/yr in 1991. Of this, about 0.13 Bcm has been lost from fertilizer industry where natural gas use as feedstock has ceased.

537. Within Armenia, there are about 710,000 individual household units of which about 450,000 (63%) receive piped natural gas and a further 170,000 (24%) receive LPG. Household units consuming LPG have declined by 20% since 1986, but numbers have been largely replaced by consumers receiving piped gas. Consumption of LPG declined steadily from 32,000 t/yr in 1986 to 21,000 t/yr in 1991.

538. Natural gas consumption by the household and population categories (which includes official and municipal consumers) together accounted for a further 2.1 Bcm/yr in 1989, which declined to 1.7 Bcm/yr in 1991. Household consumers are given high priority for the available supplies of natural gas, particularly in the winter heating period, since their flexibility to switch the alternative fuels is limited. Average consumption of natural gas per capita in households using gas for all fuel needs is estimated at about 1,570 m³/yr. Broad estimates suggest that per capita gas consumption in Armenia could be reduced by at least 25% and possibly substantially more through effective pricing reforms and energy conservation measures.

Natural Gas Supply and Prospects for Diversification

539. Armenia has a 10-year purchase agreement for 5.2 Bcm/yr natural gas from Turkmenistan, and separate transit arrangements with Kazakhstan, Azerbaijan, Georgia and Dagestan. Under normal circumstances, 70% of supplies are delivered through Azerbaijan, and 30% through North Ossetia and Georgia. However, cessation of supplies from Azerbaijan in March 1991 resulted in complete reliance on deliveries from Georgia. Volumes delivered have been irregular and given low priority to Georgia's own needs, typically reaching 7 mcm/d in summer and 3-4mcm/d in winter compared with requirements of at least 22mcm/d in winter and about 10mcm/d in summer.

540. The project to increase the deliverability of supplies from Georgia involves the construction of 22 km transmission line and the completion of a compressor station on Georgian territory. About 1,220 million rubles of the total costs would fall on Armenia. The project is stalled because of a lack of finance and disruption of construction because of civil unrest in Georgia.

541. In view of the difficulties with existing suppliers, the government wishes to diversify gas supplies through a pipeline with Iran to supply roughly 50% of Armenia's needs (the remainder to be supplied via Georgia). To this end inter-governmental negotiations are underway. The earliest that this line could be in service would be early 1995. With a large section of the line located in Iran, participation of Iranian authorities would be required in addition to the negotiation of a long term gas supply contract.

542. In the medium-term, Armenia appears well positioned to take advantage of large multinational gas supply schemes for transport of Iranian supplies to Ukraine, Eastern and Western Europe. The driving force behind the scheme is Ukraine's great desire to achieve both physical and commercial diversification from the FSU, from which it imports 80 Bcm/yr as sole supplier, coupled with Iran's desire to further utilize its huge gas reserves. The pipeline route would pass through either Armenia or Azerbaijan, Georgia, and Russia.

Natural Gas Infrastructure

543. **Transmission.** ARMGAZPROM operates about 1600 km of high pressure transmission lines. Three trunkline systems enter along the eastern border with Azerbaijan. Their capacity is 45 mcm/d (when operated at maximum operating pressure of 55 bar) while current requirements are about 22 mcm/d. Close to half the pipelines have been in operation for more than 20 years and much of the system is believed to be in need of replacement. Although the full extent of the problem is not yet determined, many of the pipelines are operated well below their design pressure in order to minimize the risk of pipeline failure.

544. **Distribution.** ARMGAZ is responsible for the distribution of piped natural gas to about 500,000 end-use consumers through about 11,000 km of low pressure steel mains. The 1988 earthquake caused serious damage to the distribution networks resulting in the loss of about 40,000 residential connections and destruction or damage to about 1300 km distribution mains. The average age of the distribution networks is about 15 years, and 1000 km are considered to be in need of replacement due to age and corrosion caused by aggressive soils.

545. **Storage.** Armenia requires natural gas storage for both operational and strategic reasons. Gas demand is seasonal (summer demand is about half that of winter) and fluctuates on a daily and

weekly basis. Salt cavities near Yerevan provide natural underground capacity sufficient to store about 210 MCM or about 10 days of wintertime demand. To make full use of the available capacity, compressors must be installed (total cost US\$ 3.5 million).

546. Construction of an LNG plant begun in 1981 was suspended in 1987 due to environmental concerns.⁹¹ Given the availability of the salt cavity storage and the projected reduction in demand, the LNG facility would not be required for operational storage and would provide little additional strategic storage. Under these circumstances further expenditure on the plant would not be warranted.

Consumer Metering and Billing

547. Large industrial and commercial consumers of natural gas are metered; however, household consumers are not. They are instead charged a flat rate depending on the number of persons in the household and whether gas is used for water heating, cooking and/or space heating. The installation of meters is essential to encourage efficient resource allocation through the pricing mechanism. Based on field trials, ARMGAZ estimates that installation of individual consumer meters could result in a reduction of 25% within the residential sector even at current gas prices. With an appropriate pricing policy, savings could be substantially higher.

548. A joint venture has been established between ARMGAZ and Hirana (CSFR) to manufacture industrial and residential consumer meters at a factory near Yerevan. The meters are of high quality offering export potential to Eastern Europe, FSU countries and possibly Iran. With additional working capital (about 500 million rubles) to purchase meter components and calibration units, production could reach 200,000 units per year by 1995.

21/ The nature of these concerns is not clear.

Fuel Supply Costs and Prices

549. The structure of gas, LPG, and coal costs is shown in Table 4.

Table 4. ARMENIA: Cost Structure of Natural Gas, LPG, and Coal

	1990	1991	1992
Natural Gas (Rs./000 m3)			
Border price	18	36	1,625
Residential			
- cooking	50	40	300
- heating	20	40	300
Commercial/official	12	61	2,668
Power	30	61	2,688
Non-essential industries	30	71	5,120
Coal (Rs./ton)^a			
Border price	30-40	380-450	2,140-3,195
Residential	9.5	550-650	3,120-4,122
LPG			
Border price	N/A	N/A	2,220
Residential			6,182

a. Range is for large lump and small lump.

Investment Requirements

550. Three projects have been identified by the Government as the priority means of increasing and diversifying supply: (i) The completion of one compressor station and 22 km of gas pipeline on Georgian territory (estimated to cost 720 million rubles), (ii) Increase in the utilization of the underground salt cavity storage facility at Yerevan through the addition of booster compressors (US\$ 3.5 million) at the facility, or completion of the compressor station at Irom (US\$ 5.0 million); (iii) The construction of a 250 km, 750 mm gas pipeline from Tabriz to Goris (estimated cost 7.0 billion rubles or US\$ 73 million); to increase and diversify supply. A further 500 million rubles are also needed to restore or replace up to 1000 km of corroded transmission and distribution pipelines to improve safety and reduce losses.

Technical Assistance Requirements

551. It is also recommended that grant aid should be sought for technical assistance to carry out an Integrated Gas Development Plan (US\$ 0.5 million) to assess in detail natural gas demand taking into account projected economic growth and reductions in energy intensity, to determine both level and

structure of gas prices to ensure both the rational use of gas and full cost recovery. Technical Assistance is also needed with regard to institutional and regulatory issues, including assistance with (a) the formulation of an international natural gas purchase contract with Iran (Est. US\$50,000) and (b) a natural gas subsector restructuring study (Est. US \$250,000) to help in the corporatization of sector entities.

H. Priorities in the Energy Sector

552. It is clear that the current situation of blockade is not sustainable for either the energy sector or the rest of the economy. Energy supplies are inadequate even for the summer period of reduced demand let alone for the winter. Senior government officials in all sectors regard energy supply as critical not only for survival but also as an essential input to permit increased economic production.

Energy Sector Investment Program

553. Beyond the immediate need for critical spares and material, the investment requirements in the energy sector over the next five years are very roughly estimated at US\$ 200-300 million.⁹² Given the magnitude of the investment requirements, careful attention is also required concerning the debt service and macroeconomic impacts of such a program. Cofinancing will be required and the Energy Sector Review could serve as a basic document for organizing a donors conference.

Energy Sector Strategy and Priorities

554. Based on the analysis and projections presented above, the recommended energy sector strategy and priorities for the use of scarce funds focus on the need to:

- (a) increase and diversify energy supply;
- (b) improve the efficiency of use of available energy supplies and hydro resources;
- (c) ensure continued service from existing plant and equipment;
- (d) provide new capacity to replace old equipment which is not economic to rehabilitate.

555. Concurrently there is a need to address policy issues in order to:

- (a) improve sector financial viability;
- (b) provide a social safety net for low income groups; and
- (c) strengthen and/or restructure existing institutions.

^{92/} At present procurement within FSU would likely result in lower costs; however, given the uncertainty of prices and exchange rates, non-FSU procurement has been assumed in order to provide a stable basis for planning.

TABLE 1-1: ARMENIA: POPULATION AND EMPLOYMENT - SUMMARY TABLE (in thousands)

	1979	1989	1990	1991	1992

Total Population	3031	3288	3515	3575	3645
Males	1475	1627	1740	1734	1768
Females	1556	1660	1775	1841	1877
Urban	1991	2265	2436	2484	2511
Rural	1040	1022	1079	1090	1134
Below Working Ages	..	1036	1138	1155	1170
Working-Age Population a/	..	1933	1949	1971	2005
Above Working Ages	245	319	428	448	470
Total Labor Resources	..	2011	2031	2054	2065
Total Employed Population	..	1592	1630	1672	1550
State Sector	..	1350	1330	1174	973
Collective Farms	..	54	54	12	2
Cooperatives	..	83	127	153.1	180
Individual Labor Activities	..	4	6	10	15
Private Subsidiary Agriculture	..	..	..	262	330
Private Agriculture	..	102	117	60	50
Students	..	..	..	68	66

a/ Working age includes women aged 16-54 an

Source: Dept. of Statistics (Armenia)

TABLE 1-2: ARMENIA: EMPLOYMENT BY SECTOR, ANNUAL AVERAGE (in thousands)

	1980	1985	1986	1987	1988	1989	1990	1991	1992
Material Sphere	992	1101	1115	1115	1135	1113	1150	1203	1100
Agriculture including forestry	303	313	318	308	296	279	289	389	404
Agriculture excluding forestry	297	308	313	303	292	275	284	385	400
Forestry	6	5	5	5	5	4	5	4	4
Industry, total	520	597	602	615	634	653	679	635	510
Industry, other	403	467	474	483	502	482	495	458	360
Construction	117	130	128	133	132	170	184	177	150
Other, material sphere	169	191	195	192	205	181	182	179	186
Transportation of goods and									
Communication servicing material production	54	62	63	62	63	49	49	45	40
Retail Trade and catering	88	100	100	101	108	98	101	97	110
Material Supply	3	4	6	6	6	5	4	3	4
Other branches of material production	24	25	25	23	28	28	28	33	32
Nonmaterial Sphere	386	446	454	469	479	479	481	469	450
Transportation and Communication	39	44	44	43	43	36	36	35	30
Housing, public utilities and personal services	51	59	60	62	68	66	66	70	70
Health care, social security,									
physical culture and sports	60	80	81	88	87	93	94	88	85
Education, culture and art	154	172	176	181	189	195	196	193	190
Science and scientific services	50	58	57	58	55	54	53	50	45
Credit and insurance	7	7	7	7	7	8	8	8	8
General administration, private nonprofit									
institutions serving households	26	27	29	30	29	27	28	25	22
Other, material and nonmaterial spheres	555	637	649	660	683	660	662	647	636
Total Employment	1378	1547	1569	1583	1614	1592	1630	1672	1550

Source: Dept. of Statistics (Armenia)

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TABLE 1-2A: ARMENIA:PERCENTAGE DISTRIBUTION OF EMPLOYMENT BY SECTOR (in percent)

	1980	1985	1986	1987	1988	1989	1990	1991	1992
Material Sphere	72.0%	71.1%	71.0%	70.4%	70.3%	69.9%	70.5%	72.0%	71.0%
Agriculture including forestry	22.0%	20.2%	20.2%	19.4%	18.4%	17.5%	17.7%	23.3%	26.1%
Agriculture excluding forestry	21.6%	19.9%	19.9%	19.1%	18.1%	17.3%	17.4%	23.0%	25.8%
Forestry	0.4%	0.3%	0.3%	0.3%	0.3%	0.2%	0.3%	0.3%	0.3%
Industry, total	37.7%	38.6%	38.4%	38.9%	39.3%	41.0%	41.6%	38.0%	32.9%
Industry, other	29.2%	30.2%	30.2%	30.5%	31.1%	30.3%	30.4%	27.4%	23.2%
Construction	8.5%	8.4%	8.2%	8.4%	8.1%	10.7%	11.3%	10.6%	9.7%
Other, material sphere	12.3%	12.3%	12.4%	12.1%	12.7%	11.4%	11.1%	10.7%	12.0%
Transportation of goods and									
Communication servicing material production	3.9%	4.0%	4.0%	3.9%	3.9%	3.1%	3.0%	2.7%	2.6%
Retail Trade and catering	6.4%	6.5%	6.4%	6.4%	6.7%	6.2%	6.2%	5.8%	7.1%
Material Supply	0.2%	0.3%	0.4%	0.4%	0.4%	0.3%	0.3%	0.2%	0.3%
Other branches of material production	1.8%	1.6%	1.6%	1.4%	1.7%	1.8%	1.7%	2.0%	2.1%
Nonmaterial Sphere	28.0%	28.9%	29.0%	29.6%	29.7%	30.1%	29.5%	28.0%	29.0%
Transportation and Communication	2.8%	2.8%	2.8%	2.7%	2.7%	2.3%	2.2%	2.1%	1.9%
Housing, public utilities and personal services	3.7%	3.8%	3.8%	3.9%	4.2%	4.2%	4.0%	4.2%	4.5%
Health care, social security,									
physical culture and sports	4.3%	5.2%	5.1%	5.5%	5.4%	5.8%	5.8%	5.2%	5.5%
Education, culture and art	11.2%	11.1%	11.2%	11.5%	11.7%	12.2%	12.0%	11.5%	12.3%
Science and scientific services	3.6%	3.7%	3.7%	3.7%	3.4%	3.4%	3.3%	3.0%	2.9%
Credit and insurance	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
General administration, private nonprofit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
institutions serving households	1.9%	1.8%	1.9%	1.9%	1.8%	1.7%	1.7%	1.5%	1.4%
Other, material and nonmaterial spheres	40.3%	41.2%	41.4%	41.7%	42.3%	41.4%	40.6%	38.7%	41.0%
Total Employment	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Table 1-2

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TABLE 1-3 ARMENIA: LABOR FORCE PARTICIPATION RATE /a

	1980	1985	1986	1987	1988	1989	1990	1991	1992
Total Employment	1377	1546	1569	1583	1612	1592	1630	1672	1550
Unemployment	406	379	368	370	351	359	319	299	457
Unemployment Rate	29.5%	24.5%	23.4%	23.4%	21.8%	22.6%	19.6%	17.9%	29.5%
Working Age Population	1783	1925	1937	1953	1963	1933	1949	1971	2005
Participation Rate	77.2%	80.3%	81.0%	81.1%	82.1%	82.4%	83.6%	84.8%	77.3%
Women	70.8%	75.8%	77.0%	77.9%	79.0%	78.2%	79.2%	78.2%	
Men	81.9%	82.4%	85.8%	85.7%	85.3%	86.5%	88.2%	87.2%	

/a defined as the percent of people employed in the working age population (age 15-69)

TABLE 2-1 ARMENIA: GROSS DOMESTIC PRODUCT AT CURRENT PRICES
(in millions of rubles)

	1985	1986	1987	1988	1989	1990	1991	1992
Net Material Product	6144.0	6081.0	6065.0	5779.0	6915.0	6976.0	12253.0	57018.0
Less: Nonmaterial Costs of Material Sphere 1/	220	233	247	235	261	305	312	
Plus: Depreciation	708.0	819.0	853.0	920.0	876.0	883.0	881.0	
Less: Losses on stocks 2/	22.0	27.0	31.0	444.0	272.0	281.0	410.0	
= GDP in Material Sphere	6610.0	6640.0	6640.0	6020.0	7258.0	7273.0	12412.0	
Plus: Value-added of Nonmaterial Sphere	1491.0	1559.0	1652.0	2034.0	2233.0	2419.0	3525.0	
= Total Gross Domestic Product	8101.0	8199.0	8292.0	8054.0	9491.0	9692.0	15937.0	70138.0
Memorandum Items:								
Annual Growth of NMP (% Nominal)	-	-1.04%	-0.26%	-4.95%	16.43%	0.87%	43.07%	78.51%
Annual Growth of GDP (% Nominal)	-	1.20%	1.12%	-2.96%	15.14%	2.07%	39.19%	77.28%

1/ Includes travel expenses, research & development, and cultural services provided to employees

2/ Mostly scrapped construction

Source: Dept. of Statistics (Armenia)

7.5H Table 2-2 ARMENIA: NATIONAL INCOME AND GROSS DOMESTIC PRODUCT

	1980	1985	1986	1987	1988	1989	1990	1991	1992
NATIONAL ACCOUNTS (SNA) (At current prices, millions of rubles)									
Gross Domestic Product (GDP)	6,499	8,101	8,199	8,292	8,054	9,490	9,692	15,937	70138
NATIONAL ACCOUNTS (MPS) (At current prices, million of rubles)									
National Income Produced (NIP)	5,148	6,144	6,082	6,064	5,779	6,915	6,976	12,253	57018
Industry	2954	3356	3386	3365	3157	3473	3165	5291	23620
Agriculture	775	1115	1099	1108	1071	993	1205	3946	25987
Construction	515	769	686	682	622	1463	1773	1760	2700
Transport and Communications	120	177	185	199	239	243	287	313	841
Trade and Catering	577	499	485	467	207	443	226	331	1788
Other Branches of Material Sphere	207	228	241	243	483	300	320	612	2081
National Income Expended	3590	5387	5392	5647	5780	6912	6977	13389	56797
Consumption	3316	4070	4243	4334	4470	4810	5495	10714	48040
Private Consumption	2937	3575	3708	3798	3908	4240	4862	9954	44244
Public Institution Expenses	294	380	405	414	430	429	454	550	3796
Science and Management Expenses	85	115	130	122	132	141	179	210	..
Accumulation	1035	1696	1452	1474	575	2708	2260	3678	13157
Accumulation of Fixed Assets	508	799	180	540	899	1636	1488	3202	7389
Changes in Stocks	527	897	1272	934	-324	1072	772	476	5768
Trade Balance	(781)	(408)	(342)	(199)	(797)	(962)	(1,084)	(1,460)	(4,400)*
Losses on Fixed Capital and Works	20	29	39	38	1532	356	306	457	

* Trade balance net of losses on fixed capital

Source: Dept. of Statistics (Armenia) and IMF staff estimates

TABLE 2-3 ARMENIA: NET MATERIAL PRODUCT AT CURRENT PRICES (in millions of rubles)

	1980	1985	1986	1987	1988	1989	1990	1991	1992
NMP Produced Total	5148.0	6144.0	6082.0	6064.0	5779.0	6915.0	6976.0	12253.0	57018.0
By Origin:									
Industry	2954.0	3356.0	3386.0	3365.0	3157.0	3473.0	3165.0	5291.2	23620.2
Agriculture	775.0	1115.0	1099.0	1108.0	1071.0	993.0	1205.0	3945.6	25987.0
Construction	515.0	769.0	686.0	682.0	622.0	1463.0	1773.0	1760.2	2700.2
Transportation & communication	120.0	177.0	185.0	199.0	239.0	243.0	287.0	312.7	841.2
Other Material Services	577.0	499.0	485.0	467.0	207.0	443.0	226.0	331.4	1788.3
Domestic trade	207.0	228.0	241	243.0	483.0	300.0	320.0	611.9	2081.1
By Final Use:									
NMP Used Domestically	3590.0	5387.0	5392.0	5647.0	5780.0	6912.0	6976.8	12150.2	56797.0
Consumption	3316.0	4070.0	4243.0	4334.0	4470.0	4810.0	5494.8	10714.2	48040.0
Personal consumption	2957.0	3575.0	3708.0	3798.0	3908.0	4240.0	4862.2	9954.2	44244.0
Social consumption	379.0	495.0	535.0	536.0	562.0	570.0	632.6	760.0	3796.0
Investment (Accumulation)	1035.0	1696.0	1452.0	1474.0	575.0	2708.0	2260.0	3678.0	13157.0
Net Fixed Investment	508.0	799.0	180.0	540.0	899.0	1636.0	1488.0	3202.0	7389.0
Others (w/ Change in Stock)	527.0	897.0	1272.0	934.0	(324.0)	1072.0	772.0	476.0	5768.0
Net Exports and Losses	(761.0)	(379.0)	(303.0)	(161.0)	735.0	(606.0)	(778.0)	(2,242.0)	(4,400.0)
As % of NMP									
NMP Produced Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
By Origin:									
Industry	57.4	54.6	55.7	55.5	54.6	50.2	45.4	43.2	41.4
Agriculture	15.1	18.1	18.1	18.3	18.5	14.4	17.3	32.2	45.6
Construction	10.0	12.5	11.3	11.2	10.8	21.2	25.4	14.4	4.7
Transportation & communication	2.3	2.9	3.0	3.3	4.1	3.5	4.1	2.6	1.5
Other Material Services	11.2	8.1	8.0	7.7	3.6	6.4	3.2	2.7	3.1
Domestic trade	4.0	3.7	4.0	4.0	8.4	4.3	4.6	5.0	3.6
By Final Use:									
NMP Used Domestically	69.7	87.7	88.7	93.1	100.0	100.0	100.0	99.2	99.6
Consumption	64.4	66.2	69.8	71.5	77.3	69.6	78.8	87.4	84.3
Personal consumption	57.1	58.2	61.0	62.6	67.6	61.3	69.7	81.2	77.6
Social consumption	7.4	8.1	8.8	8.8	9.7	8.2	9.1	6.2	6.7
Investment (Accumulation)	20.1	27.6	23.9	24.3	9.9	39.2	32.4	30.0	23.1
Net Fixed Investment	9.9	13.0	3.0	8.9	15.6	23.7	21.3	26.1	13.0
Others (w/ Change in Stock)	10.2	14.6	20.9	15.4	(5.6)	15.5	11.1	3.9	10.1
Net Exports and Losses	(14.8)	(6.2)	(5.0)	(2.7)	12.7	(8.8)	(11.2)	(18.3)	(7.7)

Source: Dept. of Statistics (Armenia) and Bank and IMF staff estimates

TABLE 2-4: ARMENIA: NET MATERIAL PRODUCT AT CONSTANT PRICES (Millions of 1983 rubles)

	1985	1986	1987	1988	1989	1990	1991	1992
NMP Produced Total	5982.0	6084.0	6055.0	5898.0	6735.0	6161.0	5437.0	2725.0
By Origin:								
Industry	3382.0	3540.0	3611.0	3553.0	3636.0	3654.0	3343.0	1607.0
Agriculture	908.0	931.0	849.0	783.0	566.0	491.0	566.0	401.0
Construction	782.0	726.0	704.0	618.0	1457.0	1081.0	722.0	119.0
Transportation & communication	176.0	184.0	199.0	239.0	243.0	205.0	187.0	54.0
Trade and Catering	232.0	242.0	241.0	217.0	311.0	331.0	253.0	93.0
Other Material Services	502.0	461.0	451.0	488.0	522.0	399.0	366.0	210.0
Annual Growth Rate in %								
NMP Produced Total		1.7	(0.5)	(2.6)	14.2	(8.5)	(11.8)	(49.9)
By Origin:								
Industry		4.7	2.0	(1.6)	2.3	0.5	(8.5)	(51.9)
Agriculture		2.5	(8.8)	(7.8)	(27.7)	(13.3)	15.3	(29.2)
Construction		(7.2)	(3.0)	(12.2)	135.8	(25.8)	(33.2)	(83.5)
Transportation & communication		4.5	8.2	20.1	1.7	(15.6)	(8.8)	(71.1)
Trade and Catering		4.3	(0.4)	(10.0)	43.3	6.4	(23.6)	(63.2)
Other Material Services		(8.2)	(2.2)	8.2	7.0	(23.6)	(8.3)	(42.6)

Source: Dept. of Statistics (Armenia), Bank and IMF staff estimates

TABLE 2-5: ARMENIA: GROSS SOCIAL PRODUCT AND NET MATERIAL PRODUCT AT CURRENT PRICES

(in million rubles)

	1985	1986	1987	1988	1989	1990	1991	1992
Gross Social Product	13,284.0	13,517.0	13,833.0	13,551.0	14,913.0	15,009.0	27,397.0	
Industry	8,915.0	9,189.0	9,440.0	9,188.0	8,764.0	8,741.0	15392	
Agriculture	1,679.0	1,695.0	1,702.0	1,716.0	1,570.0	1,792.0	6875	
Construction	1,490.0	1,410.0	1,448.0	1,319.0	3,203.0	3,248.0	3127	
Transport & communication	342.0	371.0	390.0	431.0	445.0	498.0	477	
Trade & Other Material Services	858.0	852.0	853.0	897.0	931.0	730.0	1526	
Net Material Product (NMP)	6,141.0	6,079.0	6,064.0	5,777.0	6,915.0	6,976.0	12,253.0	57,018.0
Industry	3,355.0	3386	3365	3,156.0	3,473.0	3,165.0	5291.2	23620.2
Agriculture	1,114.0	1,098.0	1,108.0	1,071.0	993.0	1,205.0	3945.6	25987
Construction	769.0	686.0	682.0	621.0	1,463.0	1,773.0	1760.2	2700.2
Transport & communication	176.0	184.0	199.0	239.0	243.0	287.0	312.7	841.2
Trade & Other Material Services	727.0	725.0	710.0	690.0	743.0	546.0	943.3	3869.4
NMP as % of Gross Social Product	46.2	45.0	43.8	42.6	46.4	46.5	44.7	
Industry	37.6	36.8	35.6	34.3	39.6	36.2	34.4	
Agriculture	66.3	64.8	65.1	62.4	63.2	67.2	57.4	
Construction	51.6	48.7	47.1	47.1	45.7	54.6	56.3	
Transport & communication	51.5	49.6	51.0	55.5	54.6	57.6	65.6	
Trade & Other Material Services	84.7	85.1	83.2	76.9	79.8	74.8	61.8	

Source: Statistical Yearbook of Armenia 1990

TABLE 3-1: BALANCE OF PAYMENTS SUMMARY AT CURRENT PRICES
(millions of U.S. dollars)

	1990	1991	1992
	----	----	----
Exports of Goods and Services (including Workers' Remittances)	6050	4751	366
Exports of Goods and Nonfactor Services	5825	4639	366
Merchandise (FOB)	4404	3732	354
Non-factor services	1421	907	12
Shipment	..	..	..
Travel	469	325	2
Other	953	582	10
Imports of Goods and Nonfactor Services	7575	6077	465
Merchandise (FOB)	5828	4768	422
Non-factor services	1748	1308	44
Shipment	301	278	24
Travel	1446	1031	20
Other	..	..	..
Resource balance	-1750	-1438	-100
Net factor income	0	0	0
Factor receipts	..	..	..
Factor payments	0	0	0
Total interest DUE	..	..	..
Other Factor Payments & discrepancy	..	..	..
Net current transfers	797	519	2
Current Receipts	797	519	2
Workers remittances	225	112	1
Other current transfers	572	407	2
Current Payments	..	..	..
Current Account Balance before Official Grants	-954	-919	-98
Official Capital Grants	..	..	..
Current Account Balance after Official Grants	-954	-919	-98
Long Term Capital Inflows	0	0	9
Direct investment	..	..	..
Net Long Term Borrowing	0	0	9
disbursements	..	..	9
repayments DUE	..	..	..
Other Long Term Inflows (net)	..	..	..
Adjustment to Scheduled Debt Service	0	0	3
1. Debt Service Not Paid	0	0	0
a. Interest Not Paid	..	..	..
b. Principal Not Paid	..	..	..
2. Arrears Reductions/Prepayments(-)	..	..	3
Total Other items (Net)	954	919	64
Net short-term capital	..	..	7
Capital flows n.e.i.	..	..	..
Errors and omissions	954	919	56
Changes in net reserves	0	0	-22
Net credit from IMF	..	..	..
Reserve changes n.e.i.	..	..	22
Escrow Account	..	..	..
Gross Reserves (excluding Gold)	..	..	..
Gross Reserves (including Gold)	..	..	..
Exchange Rate (Annual average) (rubles/US\$)	0.80	1.70	188.00

Sources: IMF Estimates

TABLE 3-2: ARMENIA: TRADE BY COMMODITY GROUPS
(in millions of current rubles)

	1987			1988			1989			1990		
	Exports	Imports	Balance:	Exports	Imports	Balance:	Exports	Imports	Balance:	Exports	Imports	Balance:
Total Trade	4114.0	4250.0	-136.0	3767.0	4878.0	-1111.0	3691.0	4898.0	-1207.0	3531.0	4591.9	-1060.9
Foreign	66.0	789.0	-723.0	84.0	859.0	-775.0	93.0	1056.0	-963.0	103	877.0	-774.0
Interrepublic	4048.0	3461.0	587.0	3683.0	4019.0	-336.0	3598.0	3842.0	-244.0	3428.0	3714.9	-286.9
Energy Products	36.8	373.0	-336.2	30.5	456.0	-425.5	12.2	436.0	-423.8	6.0	304.0	-298.0
Foreign	..	..	0.0	..	..	0.0	..	..	0.0	..	..	0.0
Interrepublic	36.8	373.0	-336.2	30.5	456.0	-425.5	12.2	436.0	-423.8	6.0	304.0	-298.0
Black Metallurgy	19.0	251.0	-232.0	20.0	277.0	-257.0	20.0	284.0	-264.0	14.0	210.0	-196.0
Foreign	..	6.0	-6.0	..	7.0	-7.0	1.0	3.0	-2.0	..	2.0	-2.0
Interrepublic	19.0	245.0	-226.0	20.0	270.0	-250.0	19.0	281.0	-262.0	14.0	208.0	-194.0
Colored Metallurgy	121.0	127.0	-6.0	120.0	150.0	-30.0	112.0	140.0	-28.0	89.0	112.0	-23.0
Foreign	18.0	..	18.0	19.0	..	19.0	5.0	49.0	-44.0	4.0	25.0	-21.0
Interrepublic	103.0	127.0	-24.0	101.0	150.0	-49.0	107.0	91.0	16.0	85.0	87.0	-2.0
Chemical Products	421.0	364.0	57.0	375.0	362.0	13.0	338.0	386.0	-48.0	213.0	370.0	-157.0
Foreign	..	67.0	-67.0	11.0	73.0	-62.0	9.0	74.0	-65.0	9.0	75.0	-66.0
Interrepublic	421.0	297.0	124.0	364.0	289.0	75.0	329.0	312.0	17.0	204.0	295.0	-91.0
Machine Building & Metal	1027.0	929.0	98.0	845.0	1002.0	-157.0	861.0	1005.0	-144.0	828.0	975.0	-147.0
Foreign	10.0	43.0	-33.0	13.0	51.0	-38.0	34.0	87.0	-53.0	56.0	125.0	-69.0
Interrepublic	1017.0	886.0	131.0	832.0	951.0	-119.0	827.0	918.0	-91.0	772.0	850.0	-78.0
Wood & Paper products	19.0	27.0	-8.0	20.0	150.0	-130.0	18.0	161.0	-143.0	9.0	174.0	-165.0
Foreign	..	27.0	-27.0	..	35.0	-35.0	..	48.0	-48.0	..	74.0	-74.0
Interrepublic	19.0	..	19.0	20.0	115.0	-95.0	18.0	113.0	-95.0	9.0	100.0	-91.0
Building Material	42.0	80.0	-38.0	42.0	87.0	-45.0	38.0	98.0	-60.0	44.0	83.0	-39.0
Foreign	1.0	18.0	-17.0	3.0	31.0	-28.0	0.0	20.0	-20.0	..	26.0	-26.0
Interrepublic	41.0	62.0	-21.0	39.0	56.0	-17.0	38.0	78.0	-40.0	44.0	57.0	-13.0
Light Industry	1550.0	1066.0	484.0	1501.0	1118.0	383.0	1427.0	1108.0	319.0	1500.0	1166.0	334.0
Foreign	30.0	295.0	-265.0	20.0	359.0	-339.0	27.0	309.0	-282.0	17.0	277.0	-260.0
Interrepublic	1520.0	771.0	749.0	1481.0	759.0	722.0	1400.0	799.0	601.0	1483.0	889.0	594.0
Food Industry	572.0	546.0	26.0	584.0	843.0	-259.0	641.0	945.0	-304.0	412.0	755.0	-170.0
Foreign	7.0	226.0	-219.0	16.0	257.0	-241.0	14.0	350.0	-336.0	8.0	387.0	-360.0
Interrepublic	565.0	320.0	245.0	568.0	586.0	-18.0	627.0	595.0	32.0	404.0	368.0	190.0
Oth. Industry	287.0	221.0	66.0	208.0	219.0	-11.0	193.0	156.0	37.0	376.0	214.0	162.0
Foreign	..	7.0	-7.0	..	..	0.0	2.0	6.0	-4.0	..	15.0	-15.0
Interrepublic	287.0	214.0	73.0	208.0	219.0	-11.0	191.0	150.0	41.0	376.0	199.0	177.0
Agricultural Produce	15.0	145.0	-130.0	15.0	212.0	-197.0	10.0	200.0	-190.0	12.0	290.0	-278.0
Foreign	..	97.0	-97.0	..	45.0	-45.0	1.0	111.0	-110.0	1.0	148.0	-147.0
Interrepublic	15.0	48.0	-33.0	15.0	167.0	-152.0	9.0	89.0	-80.0	11.0	142.0	-131.0
Other Branches	6.0	5.0	1.0	6.0	4.0	2.0	22.0	6.0	16.0	19.0	217.9	-198.9
Foreign	..	2.0	-2.0	..	1.0	-1.0	..	..	0.0	..	1.0	-1.0
Interrepublic	6.0	3.0	3.0	6.0	3.0	3.0	22.0	6.0	16.0	19.0	216.9	-197.9

Memorandum Items:

Share of Total Exports and Imports (%)

Foreign	0.79%	9.43%	0.97%	9.94%	1.08%	12.29%	1.27%	10.80%
Interrepublic	48.40%	41.38%	42.60%	46.49%	41.89%	44.73%	42.20%	45.73%

a/ All foreign trade is valued in domestic prices

Source: Bank staff estimates

TABLE 3-3: ARMENIA: REPUBLIC TRADE IN DOMESTIC AND WORLD PRICES IN 1990
(in million rubles)

INDUSTRY	Interrepublic Trade				Extrarepublic Trade				Total Trade									
	Domestic Prices		World Prices		Domestic Prices		World Prices		Domestic Prices		World Prices							
	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import	Export	Import						
	3397.6	3355.5	42	1963.9	2833.5	-870	94.2	1005.2	-911	64.1	429.5	-365.4	3491.8	4360.7	-868.9	2028	3263	-1235
POWER	6	17.9	-12	9	26.9	-18	0	0	0	0	0	0	6	17.9	-11.9	9	26.9	-17.9
OIL AND GAS	0	272.9	-273	0	623.2	-623	0	0	0	0	0	0	0	272.9	-272.9	0	623.2	-623.2
Oil Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Refineries	0	206.6	-207	0	460.1	-460	0	0	0	0	0	0	0	206.6	-206.6	0	460.1	-460.1
Gas Products	0	66.3	-66	0	163.1	-163	0	0	0	0	0	0	0	66.3	-66.3	0	163.1	-163.1
COAL	0	13.2	-13	0	12.3	-12	0	0	0	0	0	0	0	13.2	-13.2	0	12.3	-12.3
OTHER FUELS	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0.1	-0.1	0	0.1	-0.1
Combustible Shales	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0.1	-0.1	0	0.1	-0.1
Peat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FERROUS	13.8	207.9	-194	17.4	248.6	-231	0.1	2.2	-2.1	0.2	3	-2.8	13.9	210.1	-196.2	17.6	251.6	-234
Ferrous Ores	0	0.5	-1	0	0.5	-1	0	0	0	0	0	0	0	0.5	-0.5	0	0.5	-0.5
Ferrous Metals	9.7	183.6	-174	12	226.2	-214	0.1	1.8	-1.7	0.2	2.4	-2.2	9.8	185.4	-175.6	12.2	228.6	-216.4
Coking Products	0	3.3	-3	0	4.9	-5	0	0.3	-0.3	0	0.4	-0.4	0	3.6	-3.6	0	5.3	-5.3
Fire Resistant	2.1	2.1	0	4	4	0	0	0.1	-0.1	0	0.2	-0.2	2.1	2.2	-0.1	4	4.2	-0.2
Metal Products	2	18.4	-16	1.4	13	-12	0	0	0	0	0	0	2	18.4	-16.4	1.4	13	-11.6
NON-FERR.	85.1	87.2	-2	136.5	143.4	-7	3.5	25.3	-21.8	5.5	18.5	-13	88.6	112.5	-23.9	142	161.9	-19.9
Non-ferrous Ores	51.9	20.7	31	81	32.3	49	3.5	0	3.5	5.5	0	5.5	55.4	20.7	34.7	86.5	32.3	54.2
Non-ferr. Metals	33.2	66.5	-33	55.5	111.1	-56	0	25.3	-25.3	0	18.5	-18.5	33.2	91.8	-58.6	55.5	129.6	-74.1
CHEMICALS	204.4	294.9	-90	175.2	238.6	-63	8.9	75.1	-66.2	6.4	53.2	-46.8	213.3	370	-156.7	181.6	291.8	-110.2
Mineral Chemistry	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0.1	-0.1	0	0.1	-0.1
Basic Chemicals	7.2	35.2	-28	5.2	25.4	-20	1	2.2	-1.2	0.7	1.7	-1	8.2	37.4	-29.2	5.9	27.1	-21.2
Chemical Fibers	21.5	53.6	-32	15.3	38.2	-23	7	10.2	-3.2	5	6.7	-1.7	28.5	63.8	-35.3	20.3	44.9	-26.6
Synthetic Resins	8.2	38.5	-30	6.3	29.5	-23	0	11.4	-11.4	0	9	-9	8.2	49.9	-41.7	6.3	38.5	-32.2
Plastic Products	31.6	18.9	13	25.2	15.1	10	0	1.3	-1.3	0	0.9	-0.9	31.6	20.2	11.4	25.2	16	9.2
Paints & Laquers	10.5	15.4	-5	7.9	11.6	-4	0	1.3	-1.3	0	1.2	-1.2	10.5	16.7	-6.2	7.9	12.8	-4.9
Synthetic Paints	2.1	12.6	-11	1.8	10.7	-9	0	2.3	-2.3	0	1.7	-1.7	2.1	14.9	-12.8	1.8	12.4	-10.6
Synthetic Rubber	5.8	21.1	-15	4.3	15.6	-11	0.2	2.2	-2	0.1	1.3	-1.2	6	23.3	-17.3	4.4	16.9	-12.5
Organic Chemicals	28.5	28.6	0	25.3	25.4	0	0.1	0.8	-0.7	0.1	0.5	-0.4	28.6	29.4	-0.8	25.4	25.9	-0.5
Tires	46	29.7	16	45.1	29.1	16	0	0.1	-0.1	0	0.1	-0.1	46	29.8	16.2	45.1	29.2	15.9
Rubber & Asbestos	16.4	7.1	9	14.1	6.1	8	0	4.6	-4.6	0	2.4	-2.4	16.4	11.7	4.7	14.1	8.5	5.6
Other Products	7.3	10.8	-4	7.2	10.7	-3	0	13.2	-13.2	0	5.6	-5.6	7.3	24	-16.7	7.2	16.3	-9.1
Pharmaceuticals	19.3	23.3	-4	17.5	21.1	-4	0.6	25.5	-24.9	0.5	22.1	-21.6	19.9	48.8	-28.9	18	43.2	-25.2
MACHINERY	772.1	849.7	-78	790	842.9	-53	55.9	124.8	-68.9	41.6	91.1	-49.5	828	974.5	-146.5	831.6	934	-102.4
Energy & power	7.1	10.8	-4	6.5	9.8	-3	0.1	0.1	0	0.1	0.1	0	7.2	10.9	-3.7	6.6	9.9	-3.3
Technology	0	1.3	-1	0	1.3	-1	0	0	0	0	0	0	0	1.3	-1.3	0	1.3	-1.3
Mining	0	7.1	-7	0	11.1	-11	0	0	0	0	0	0	0	7.1	-7.1	0	11.1	-11.1
Transportation	17.3	16.1	1	23.5	21.8	2	0	1.7	-1.7	0	1.7	-1.7	17.3	17.8	-0.5	23.5	23.5	0
Railway Equipment	0	7.6	-8	0	5.5	-6	0	0	0	0	0	0	0	7.6	-7.6	0	5.5	-5.5
Electro-technical	180.2	69.8	110	165.2	64	101	3.9	5.1	-1.2	3.6	4.2	-0.6	184.1	74.9	109.2	168.8	68.2	100.6
Cables	39.8	14.9	25	39.8	14.9	25	0.1	0.2	-0.1	0.1	0.2	-0.1	39.9	15.1	24.8	39.9	15.1	24.8

Armenia: Republic Trade in Domestic and World Prices in 1990
(million rubles)

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	Interrepublic Trade						Extrarepublic Trade						Total Trade						
	Domestic Prices		World Prices			Domestic Prices		World Prices			Domestic Prices		World Prices			Domestic Prices		World Prices	
	Export	Import	Export	Import		Export	Import	Export	Import		Export	Import	Export	Import		Export	Import	Export	Import
Pumps	37.5	45.9	-8	42.9	52.5	-10	1.1	2.9	-1.8	1.3	2.5	-1.2	38.6	48.8	-10.2	44.2	55	-10.8	
Machine Tools	40.8	25.4	15	46.6	29	18	5.9	7.1	-1.2	6.7	6.4	0.3	46.7	32.5	14.2	53.3	35.4	17.9	
Forging/Pressing	3.8	9.1	-5	3.3	7.9	-5	0	6.4	-6.4	0	5.8	-5.8	3.8	15.5	-11.7	3.3	13.7	-10.4	
Casting Equipment	0	1.4	-1	0	1.5	-2	0	0	0	0	0	0	0	1.4	-1.4	0	1.5	-1.5	
Precision Instr.	7.8	14.6	-7	4.7	8.9	-4	0	0	0	0	0	0	7.8	14.6	-6.8	4.7	8.9	-4.2	
Synthetic Diamonds	33	6	27	31.6	5.7	26	0	0	0	0	0	0	33	6	27	31.6	5.7	25.9	
Tools and Dies	185.9	88.6	97	149.6	75.8	74	35.6	5.5	30.1	19.5	5	14.5	221.5	94.1	127.4	169.1	80.8	88.3	
Autos & Parts	44.5	141	-97	75.2	126.5	-51	0.2	12.9	-12.7	0.1	12.8	-12.7	44.7	153.9	-109.2	75.3	139.3	-64	
Bearings	0	8.2	-8	0	6.4	-6	0	0	0	0	0	0	0	8.2	-8.2	0	6.4	-6.4	
Tractors & Agri.Eq.	0.7	29.2	-29	0.9	39.5	-39	0	3.5	-3.5	0	3.5	-3.5	0.7	32.7	-32	0.9	43	-42.1	
Construction M&E	2.4	20.4	-18	3.4	28.7	-25	0	0.3	-0.3	0	0.3	-0.3	2.4	20.7	-18.3	3.4	29	-25.6	
Consumal M&E	0	6.5	-7	0	8.7	-9	0	0.1	-0.1	0	0.1	-0.1	0	6.6	-6.6	0	8.8	-8.8	
Light Ind. M&E	0.1	21.4	-21	0.1	24.5	-24	0	20.8	-20.8	0	16.1	-16.1	0.1	42.2	-42.1	0.1	40.6	-40.5	
Food M&E	0.1	9.5	-9	0.1	12.4	-12	0	6.6	-6.6	0	5	-5	0.1	16.1	-16	0.1	17.4	-17.3	
Trade M&E	0.5	6.2	-6	0.7	9.1	-8	0	0.5	-0.5	0	0.5	-0.5	0.5	6.7	-6.2	0.7	9.6	-8.9	
Printing M&E	0	0.9	-1	0	0.7	-1	0	4.4	-4.4	0	3.9	-3.9	0	5.3	-5.3	0	4.6	-4.6	
Appliances	9.8	27	-17	6.3	10.1	-4	0.2	7	-6.8	0.1	2.2	-2.1	10	34	-24	6.4	12.3	-5.9	
Sanitary Eng.	1.6	9.5	-8	0.9	5.1	-4	0	5.3	-5.3	0	4.9	-4.9	1.6	14.8	-13.2	0.9	10	-9.1	
Shipbuilding	0	2.9	-3	0	3.4	-3	0	0	0	0	0	0	0	2.9	-2.9	0	3.4	-3.4	
Radio Electronics	111	159.1	-48	115.8	137.3	-22	7.9	20.1	-12.2	9.2	10.2	-1	118.9	179.2	-60.3	125	147.5	-22.5	
Other Ind. M&E	30.8	41.8	-11	58.6	79.5	-21	0.2	0.2	0	0.4	0.3	0.1	31	42	-11	59	79.8	-20.8	
Metal Construction	1.6	3.5	-2	1.7	3.7	-2	0	0	0	0	0	0	1.6	3.5	-1.9	1.7	3.7	-2	
Metal Products	14.6	37	-22	11.4	29	-18	0.7	10.6	-9.9	0.5	2.3	-1.8	15.3	47.6	-32.3	11.9	31.3	-19.4	
M&E Repair	0	1.4	-1	0	2.9	-3	0	0	0	0	0	0	0	1.4	-1.4	0	2.9	-2.9	
Medical Equipment	1.2	5.6	-4	1.2	5.7	-5	0	3.5	-3.5	0	3.1	-3.1	1.2	9.1	-7.9	1.2	8.8	-7.6	
WOOD & PAPER	8.8	99.9	-91	5.8	72.1	-66	0	73.5	-73.5	0	40.6	-40.6	8.8	173.4	-164.6	5.8	112.7	-106.9	
Logging	0	8.3	-8	0	5.3	-5	0	0.2	-0.2	0	0.1	-0.1	0	8.5	-8.5	0	5.4	-5.4	
Sawmill	0.7	31.5	-31	0.5	23.7	-23	0	1.1	-1.1	0	0.7	-0.7	0.7	32.6	-31.9	0.5	24.4	-23.9	
Plywood	0	9.4	-9	0	7.6	-8	0	0.6	-0.6	0	0.4	-0.4	0	10	-10	0	8	-8	
Furniture	3.3	5.6	-2	1.4	2.5	-1	0	67.9	-67.9	0	36.6	-36.6	3.3	73.5	-70.2	1.4	39.1	-37.7	
Paper & Pulp	4.8	39.2	-34	3.9	31.9	-28	0	3.6	-3.6	0	2.7	-2.7	4.8	42.8	-38	3.9	34.6	-30.7	
Chemistry Prod.	0	5.9	-6	0	1.1	-1	0	0.1	-0.1	0	0.1	-0.1	0	6	-6	0	1.2	-1.2	
CONSTR. MAT.	43.8	56.8	-13	47	48.7	-2	0	25.8	-25.8	0	7.8	-7.8	43.8	82.6	-38.8	47	56.5	-9.5	
Cement	13.2	0	13	10.6	0	11	0	0	0	0	0	0	13.2	0	13.2	10.6	0	10.6	
Asbestos Products	1	0.7	0	1.4	0.9	1	0	0	0	0	0	0	1	0.7	0.3	1.4	0.9	0.5	
Roofing	0	2.5	-3	0	2.7	-3	0	0	0	0	0	0	0	2.5	-2.5	0	2.7	-2.7	
Precast Concrete	0.8	1.5	-1	0.9	1.6	-1	0	0	0	0	0	0	0.8	1.5	-0.7	0.9	1.6	-0.7	
Wall Materials	0	0.6	-1	0	0.2	0	0	0	0	0	0	0	0	0.6	-0.6	0	0.2	-0.2	
Ceramics	1.4	1.3	0	1.2	1.1	0	0	0.9	-0.9	0	0.6	-0.6	1.4	2.2	-0.8	1.2	1.7	-0.5	
Constr. Products	0.6	5.3	-5	0.4	3.5	-3	0	1	-1	0	0.7	-0.7	0.6	6.3	-5.7	0.4	4.2	-3.8	
Other	14.3	6.4	8	18.5	8.3	10	0	0	0	0	0	0	14.3	6.4	7.9	18.5	8.3	10.2	
Glass & Porcelain	12.5	37.1	-25	14	29	-15	0	23.8	-23.8	0	6.4	-6.4	12.5	60.9	-48.4	14	35.4	-21.4	
Medical Products	0	1.4	-1	0	1.4	-1	0	0.1	-0.1	0	0.1	-0.1	0	1.5	-1.5	0	1.5	-1.5	

Armenia: Republic Trade in Domestic and World Prices in 1990
(million rubles)

Page 3

	Interrepublic Trade				Extrarepublic Trade				Total Trade									
	Domestic Prices Export	Domestic Prices Import	World Prices Export	World Prices Import	Domestic Prices Export	Domestic Prices Import	World Prices Export	World Prices Import	Domestic Prices Export	Domestic Prices Import	World Prices Export	World Prices Import						
LIGHT INDUSTRY	1483.3	888.9	594	484.4	274.8	210	17.4	277.1	-259.7	6.7	73.5	-66.8	1500.7	1166	334.7	491.1	348.3	142.8
Cotton Products	56.2	326.1	-270	17.2	110.9	-94	0.9	53.8	-52.9	0.3	20.7	-20.4	57.1	379.9	-322.8	17.5	131.6	-114.1
Flax Products	0	14.9	-15	0	6.2	-6	0	0.2	-0.2	0	0.2	-0.2	0	15.1	-15.1	0	6.4	-6.4
Wool Products	72.8	173.5	-101	20.5	40.3	-20	3.6	14.2	-10.6	2	3	-1	76.4	187.7	-111.3	22.5	43.3	-20.8
Silk Products	95.1	166.5	-71	16.5	28.8	-12	0.2	12.5	-12.3	0.1	3.4	-3.3	95.3	179	-83.7	16.6	32.2	-15.6
Hosiery/Knitwear	488.2	67.2	421	165.5	22.8	143	0.3	51.1	-50.8	0.2	9	-8.8	488.5	118.3	370.2	165.7	31.8	133.9
Other Textiles	18.3	47.8	-30	11.4	29	-18	0	7.2	-7.2	0	1.2	-1.2	18.3	55	-36.7	11.4	30.2	-18.8
Sewn Goods	507.2	19.2	488	165.3	6.3	159	12.2	54.3	-42.1	4	12.6	-8.6	519.4	73.5	445.9	169.3	18.9	150.4
Leather	245.5	73.7	172	88.4	30.5	58	0.2	83.8	-83.6	0.1	23.4	-23.3	245.7	157.5	88.2	88.5	53.9	34.6
FOOD PROD.	404.2	367.5	37	68.2	167.8	-100	8	386.7	-378.7	3.4	137.4	-134	412.2	754.2	-342	71.6	305.2	-233.6
Sugar	0	96.1	-96	0	37.9	-38	0	0.1	-0.1	0	0.1	-0.1	0	96.2	-96.2	0	38	-38
Bread Products	0	0.8	-1	0	0.5	-1	0	0.3	-0.3	0	0.2	-0.2	0	1.1	-1.1	0	0.7	-0.7
Confections	17.1	1.1	16	7.8	0.5	7	0.1	4.5	-4.4	0.1	1.1	-1	17.2	5.6	11.6	7.9	1.6	6.3
Vegetable Oils	3.5	9.5	-6	1.2	4.3	-3	0	6.2	-6.2	0	2.7	-2.7	3.5	15.7	-12.2	1.2	7	-5.8
Perfume Oils	1.1	21	-20	0.7	14.9	-14	0	38.1	-38.1	0	13.5	-13.5	1.1	59.1	-58	0.7	28.4	-27.7
Distilleries	59.8	1.2	59	5.1	0.1	5	0	0	0	0	0	0	59.8	1.2	58.6	5.1	0.1	5
Wines	216.8	1.8	215	27.5	0.2	27	3	0	3	1.4	0	1.4	219.8	1.8	218	28.9	0.2	28.7
Fruit/Vegetables	51.7	0.8	51	12	0.3	12	0	8	-8	0	5.2	-5.2	51.7	8.8	42.9	12	5.5	6.5
Tobacco	48.5	36.5	12	12.3	12.8	-1	0	5.8	-5.8	0	1.8	-1.8	48.5	42.3	6.2	12.3	14.6	-2.3
Other Food	5.7	33.4	-28	1.6	14.5	-13	2.5	84.9	-82.4	0.9	11.4	-10.5	8.2	118.3	-110.1	2.5	25.9	-23.4
Meat Products	0	30.4	-30	0	14.6	-15	2.4	106	-103.6	1	55.9	-54.9	2.4	136.4	-134	1	70.5	-69.5
Dairy Products	0	104.6	-105	0	54.2	-54	0	121.3	-121.3	0	40.8	-40.8	0	225.9	-225.9	0	95	-95
Fish Products	0	18.4	-18	0	7.6	-8	0	0.5	-0.5	0	0.3	-0.3	0	18.9	-18.9	0	7.9	-7.9
Flour & Cereals	0	11.9	-12	0	5.4	-5	0	11	-11	0	4.4	-4.4	0	22.9	-22.9	0	9.8	-9.8
OTHER IND.	376.1	198.6	178	230	134.1	96	0.4	14.7	-14.3	0.3	4.4	-4.1	376.5	213.3	163.2	230.3	138.5	91.8
Microbiology	2.6	12.1	-10	2.2	10.1	-8	0	0	0	0	0	0	2.6	12.1	-9.5	2.2	10.1	-7.9
Animal Feed	0	28.4	-28	0	24.4	-24	0	0	0	0	0	0	0	28.4	-28.4	0	24.4	-24.4
Other Products	373.5	158.1	215	227.8	99.6	128	0.4	14.7	-14.3	0.3	4.4	-4.1	373.9	172.8	201.1	228.1	104	124.1
AGRICULTURE	11.3	142.3	-131	4	74.1	-70	0.6	147.8	-147.2	0.2	70.2	-70	11.9	290.1	-278.2	4.2	144.3	-140.1
Crops	8.2	127.1	-119	3	70.8	-68	0.1	147.6	-147.5	0.1	70.1	-70	8.3	274.7	-266.4	3.1	140.9	-137.8
Animal Husbandry	3.1	15.2	-12	1	3.3	-2	0.5	0.2	0.3	0.1	0.1	0	3.6	15.4	-11.8	1.1	3.4	-2.3
OTHER PROD.	18.9	217.1	-198	20.9	246.9	-226	0.1	0.5	-0.4	0.1	0.4	-0.3	19	217.6	-198.6	21	247.3	-226.3
Info. Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Services	3.7	3.6	0	3.6	3.5	0	0.1	0.5	-0.4	0.1	0.4	-0.3	3.8	4.1	-0.3	3.7	3.9	-0.2
Transport Expenses	15.2	213.5	-198	17.3	243.4	-226	0	0	0	0	0	0	15.2	213.5	-198.3	17.3	243.4	-226.1
TOTAL	3427.8	3714.9	-287	1988.8	3154.5	-1166	94.9	1153.5	-1058.6	64.4	500.1	-435.7	3522.7	4868.4	-1345.7	2053.2	3654.6	-1601.4

TABLE 3-4: ARMENIA: FOREIGN TRADE SUMMARY IN CURRENT PRICES (1989)

	Overall Exports Pr=d	Overall Imports Pr=d	Overall X-M Pr=d	Overall Exports Pr=d	Overall Imports Pr=d	Overall X-M Pr=d	Inter-rep Exports Pr=d	Inter-rep Imports Pr=d	Inter-rep X-M Pr=d	Inter-rep Exports Pr=d	Inter-rep Imports Pr=d	Inter-rep X-M Pr=d	Extra-rep Exports Pr=d	Extra-rep Imports Pr=d	Extra-rep X-M Pr=d	Extra-rep Exports Pr=d	Extra-rep Imports Pr=d	Extra-rep X-M Pr=d
POWER	12	13	(1)	18	20	(2)	12	13	(1)	18	20	(2)	0	0	0	0	0	0
OIL AND GAS	0	407	(407)	0	715	(715)	0	407	(407)	0	715	(715)	0	0	0	0	0	0
COAL	0	15	(15)	0	14	(14)	0	15	(15)	0	14	(14)	0	0	0	0	0	0
OTHER FUEL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FERROUS METALLURGY	19	284	(265)	23	326	(303)	19	281	(262)	22	322	(300)	1	3	(2)	1	4	(3)
NON-FERROUS METALLURGY	112	141	(29)	126	156	(30)	112	91	21	126	156	(30)	5	49	(44)	7	35	(28)
CHEMICAL & PETROLEUM	338	385	(47)	267	269	(2)	329	312	17	262	221	41	9	74	(65)	6	48	(42)
MACHINERY AND METAL WORKS	861	1005	(144)	978	1049	(71)	827	918	(91)	940	982	(42)	34	87	(53)	39	67	(28)
SAWMILL & LUMBER INDUSTRY	18	136	(118)	10	84	(74)	18	88	(70)	10	55	(45)	0	48	(48)	0	29	(29)
BUILDING MATERIALS	38	98	(60)	44	77	(33)	38	78	(40)	44	71	(27)	0	20	(20)	0	6	(6)
LIGHT INDUSTRY	1427	1107	320	533	315	218	1400	799	601	522	237	285	27	309	(282)	11	78	(67)
FOOD PRODUCTION	641	946	(305)	147	393	(246)	627	595	32	140	261	(121)	14	350	(336)	6	132	(126)
OTHER INDUSTRIES	193	156	37	192	139	53	191	150	41	190	136	54	2	6	(4)	3	3	0
AGRICULTURE	10	200	(190)	3	131	(128)	9	89	(80)	3	51	(48)	1	111	(110)	0	80	(80)
OTHER MATERIAL PRODUCTION	23	6	17	24	7	17	22	6	16	24	7	17	0	0	0	0	0	0
OVERALL	3,672	4,899	(1,207)	2,365	3,695	(1,330)	3,604	3,842	(238)	2,301	3,248	(947)	93	1,057	(964)	73	482	(409)

Source: IECSE Trade Data

TABLE 3-6: ARMENIA: FOREIGN TRADE a/ BY GEOGRAPHIC ORIGIN (1990)

	Exports	% Total	Imports	% Total
Germany	10.1	10.7%	139.0	15.8%
United Kingdom	2.8	2.9%	10.0	1.1%
France	2.8	2.9%	27.0	3.1%
Italy	3.7	3.9%	20.0	2.3%
Belgium	1.8	1.9%	4.0	0.5%
Denmark	0.0	0.0%	0.0	0.0%
Sweden	0.0	0.0%	6.0	0.7%
Finland	2.8	2.9%	22.0	2.5%
Switzerland	0.4	0.4%	10.0	1.1%
United States	0.9	1.0%	32.0	3.6%
Japan	0.9	1.0%	33.0	3.8%
	0.0		0.0	
Poland	6.5	6.8%	84.0	9.6%
Hungary	5.5	5.8%	49.0	5.6%
Czechoslovakia	8.3	8.7%	80.0	9.1%
Bulgaria	11.1	11.7%	67.0	7.6%
Romania	3.7	3.9%	20.0	2.3%
Cuba	5.5	5.8%	51.0	5.8%
Others	28.2	29.7%	223.0	25.4%
TOTAL	95.0	100.0%	877.0	100.0%

Source: Dept. of Statistics (Armenia) and Goskomstat
a/ Excluding Inter-Republican Trade.

**TABLE 3-7 ARMENIA: SUMMARY BALANCE OF TRADE BETWEEN
ARMENIA AND OTHER INDEPENDENT REPUBLICS**

Republics	1990		
	Imports	Exports	Balance
TOTAL for all republics	3,508.0	3,427.8	(80.2)
of which:			
Russia	1,777.0	1,851.2	74.2
in %	50.7%	54.0%	
Belarus	261.9	132.0	(129.9)
in %	7.5%	3.9%	
Moldova	98.3	39.8	(58.5)
in %	2.8%	1.2%	
Kazakhstan	64.5	234.7	170.2
in %	1.8%	6.8%	
Uzbekistan	81.5	156.4	74.9
in %	2.3%	4.6%	
Kyrgyzstan	37.6	57.5	19.9
in %	1.1%	1.7%	
Tajikistan	18.9	37.6	18.7
in %	0.5%	1.1%	
Turkmenistan	31.4	78.3	46.9
in %	0.9%	2.3%	
Azerbaijan	327.7	81.5	(246.2)
in %	9.3%	2.4%	
Ukraine	659.9	543.9	(116.0)
in %	18.8%	15.9%	
Georgia	195.4	123.1	(72.3)
in %	5.6%	3.6%	
Latvia	57.0	31.2	(25.8)
in %	1.6%	0.9%	
Lithuania	54.8	42.2	(12.6)
in %	1.6%	1.2%	
Estonia	49.0	18.4	(30.6)
in %	1.4%	0.5%	

Source: Goskomstat for 1990 data

TABLE 5-1: ARMENIA: CENTRAL GOVERNMENT BUDGET (millions of current rubles)

	1989	1990	1991	1992
I. Central Government Budget				
TOTAL REVENUE	4947.2	4141.0	4564.0	12533.9
Tax Revenue collected in Armenia	1800.1	2171.0	3383.0	11641.7
Enterprise income tax/transfers	320.6	412.2	510.0	4029.2
Cooperatives	26.7	81.8	172.0	362.7
Turnover tax	1256.8	1464.0	1076.0	..
Sales tax	..	..	145.0	..
VAT	..	..	..	4097.9
Excises	..	..	..	892.9
Individual income tax	196.0	213.0	529.0	1395.0
Taxes on international trade	..	..	..	..
Valuta tax	..	..	..	..
Other 2/	..	..	951.0	864.0
Non Tax Revenue	3147.1	1970.0	1181.0	892.2
Fees and charges	18.1	33.8	..	..
Union Budget Transfer	2285.0	617.6	781.0	..
Premium Bonds	66.0	73.8	..	..
Unspent outlays of previous budget	257.0	199.8	..	620.1
Other nontax revenue 3/	521.0	1045.0	400.0	..
TOTAL EXPENDITURE	4680.3	3453.5	4466.0	22581.0
Expenditure in Armenia	4680.3	3453.5	4466.0	22581.0
National Economy	2176.0	1850.0	1599.0	7010.9
Defense	..	..	..	..
Education	617.9	706.0	..	..
Science	47.2	43.0	43.0	555.1
Health Care	241.8	273.0	..	1967.0
Physical Culture 4/	11.0	14.0	1747.0	8103.7
Social Security	300.0	377.0	..	..
Allowance for mothers & children	3.7	3.7	..	1652.4
Police and State Authorities	31.7	52.0	113.0	2394.0
Reserve	..	..	..	..
Other	1251.0	134.8	964.0	897.9
Surplus/deficit (-)	266.9	687.5	98	(10,047)

Source: Ministry of Finance (Armenia) and Bank estimates

1/ Excludes Armenian share of total external interest payments on foreign obligations of the former USSR, estimated to exceed 2 million rubles, as well as revenues from Armenian share of USSR assets

2/ In 1992, includes 130 million rubles in local tax receipts

3/ Largely resources from Union budget. In the first 11 months of 1991, it includes 380 million rubles in earthquake relief from the union, 300 million ruble subsidy to cover the deficit and 120 million rubles from the surpluses of local governments.

4/ In 1991, includes social and cultural expenditure, incl. child allowance

TABLE 5-2: ARMENIA: CENTRAL GOVERNMENT BUDGET (Percentage Shares to GDP)

	1989	1990	1991 1/	1992
I. State Budget				
TOTAL REVENUE	52.13%	42.73%	29.13%	17.90%
Tax Revenue collected in Armenia	18.97%	22.40%	21.59%	16.60%
Enterprise income tax/transfers	3.38%	4.25%	3.25%	5.70%
Cooperatives	0.28%	0.84%	1.10%	0.50%
Turnover tax	13.24%	15.11%	6.87%	
Sales tax	..	..	0.93%	
VAT	..	..	..	5.80%
Excises	..	..	..	1.30%
Individual income tax	2.07%	2.20%	3.38%	2.00%
Taxes on international trade	..	..	..
Valuta tax	..	..	..
Other	..	..	6.07%	1.20%
Non Tax Revenue	33.16%	20.33%	7.54%	1.30%
Fees and charges	0.19%	0.35%	..	
Union Budget Transfer	24.08%	6.37%	4.98%	
Premium Bonds	0.70%	0.76%		
Unspent outlays of previous budget	2.71%	2.06%	..	0.90%
Other nontax revenue 3/	5.49%	10.78%	2.55%	
TOTAL EXPENDITURE	49.32%	35.64%	28.50%	32.20%
Expenditure in Armenia	49.32%	35.64%	28.50%	32.20%
National Economy	22.93%	19.09%	10.20%	10.00%
Defense	..	..	..
Education	6.51%	7.29%	..	
Science	0.50%	0.44%	0.27%	0.80%
Health Care	2.55%	2.82%	..	2.80%
Physical Culture 1/	0.12%	0.14%	11.15%	11.60%
Social Security	3.16%	3.89%	..	
Allowance for mothers & children	0.04%	0.04%	..	2.40%
Police and State Authorities	0.33%	0.54%	0.72%	3.40%
Reserve	..	..	..
Other	13.18%	1.39%	6.15%	1.30%
Surplus/deficit (-)	2.81%	7.09%	0.63%	-14.30%

Source: Table 5-1

1/ For 1991, includes social and cultural expenditure, incl. child allowance.

TABLE 6-1: ARMENIA: MONETARY SURVEY (in millions of current rubles)

	1987	1988	1989	1990	1991	1992 1/	1987	1988	1989	1990	1991	1992 1/
MONETARY LIABILITIES							As % of Total Liabilities					
Liabilities to former USSR specialized banks	2472.7	2371.5	1669.2	2133.6	..	..	36.9%	33.4%	18.7%	20.6%	0.0%	0.0%
Liabilities to Gosbank-USSR	..	..	..	..	2540.0	2540	0.0%	0.0%	0.0%	0.0%	14.1%	9.6%
Currency notes supplied by monetary authorities in Moscow							0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Liabilities to the rest of the financial system	175.4	141.8	..	..	..	..	2.6%	2.0%	0.0%	0.0%	0.0%	0.0%
Liabilities to enterprises and households	4052.7	4583.2	7259.0	8201.4	11394.0	23960.3	60.5%	64.6%	81.3%	79.4%	63.1%	90.4%
Sight Deposits	876.2	1089.0	1932.9	1937.8	3456.9	17114.9	13.1%	15.3%	21.6%	18.7%	19.2%	64.6%
Time and Savings Deposits	3176.2	3493.7	5316.8	6182.0	7901.6	6845.4	47.4%	49.2%	59.6%	59.8%	43.8%	25.8%
Other Deposits	0.3	0.5	9.3	33.7	35.5	..	0.0%	0.0%	0.1%	0.3%	0.2%	0.0%
Private Capital	..	..	..	47.9	..	..	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%
Other items (net)					4116.6	..					22.8%	0.0%
Total monetary liabilities	6700.8	7096.5	8928.2	10335.0	18050.6	26500.3	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
MONETARY ASSETS							As % of Total Assets					
Net International Reserves	3.7	1.5	3.2	3.5	37.8	4907.8	0.1%	0.0%	0.0%	0.0%	0.2%	18.5%
Deposits with the rest of the financial system 2/	1.9	..	407.3	401.3	426.0	231.1	0.0%	0.0%	4.6%	3.9%	2.4%	0.9%
Total domestic bank credit	3589.5	3777.4	3542.4	4664.1	9779.2	21316.6	53.6%	53.2%	39.7%	45.1%	54.2%	80.4%
Credit to government	-232.7	-1065.1	-1006.2	-591.9	316.2	6777.7	-3.5%	-15.0%	-11.3%	-5.7%	1.8%	25.6%
Central Government	-178.7	-917.8	-841.8	-401.5	209.7	7519.1	-2.7%	-12.9%	-9.4%	-3.9%	1.2%	28.4%
Other Government	-54.0	-147.3	-164.4	-190.4	106.5	-741.4	-0.8%	-2.1%	-1.8%	-1.8%	0.6%	-2.8%
Credit to the economy	4672.8	4297.1	4009.8	5067.0	9463.0	10056.1	69.7%	60.6%	44.9%	49.0%	52.4%	37.9%
Official Capital and Reserves	..	..	..	..	..	-15245.1	0.0%	0.0%	0.0%	0.0%	0.0%	-57.5%
Long-term	4672.8	4297.1	4009.8	5067.0	9463.0	25301.2	69.7%	60.6%	44.9%	49.0%	52.4%	95.5%
Enterprises	4629.8	4187.8	3773.6	4427.0	8613.2	23598.8	69.1%	59.0%	42.3%	42.8%	47.7%	89.1%
Households	6.7	109.3	236.2	580.0	849.8	122.4	0.1%	1.5%	2.6%	5.6%	4.7%	0.5%
Interbank float	36.3			60						0.6%	0.0%	0.0%
Pension Funds						1580						6.0%
Net claims on former USSR Savings Bank	3105.7	3317.6	4975.3	5266.1	7807.6	44.8	46.3%	46.7%	55.7%	51.0%	43.3%	0.2%
Other items (net)	-850.6	545.4	538.8	189.0	..	4482.8	-12.7%	7.7%	6.0%	1.8%	0.0%	16.9%
Total monetary assets	6700.8	7096.5	8928.2	10335.0	18050.6	26500.3	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

1/ Figures for end of period November 1992

2/ The financial system includes the banking system and other nonbank financial institutions

Source: National Bank of Armenia

TABLE 6-2: ARMENIA: TOTAL DOMESTIC CREDIT (in millions of current rubles)

	1987	1988	1989	1990	1991	1992 1/
Total Domestic Credit	3589.5	3777.4	3542.4	4664.1	9779.2	21316.6
of which:						
Bank credit to households	6.7	109.3	236.2	580.0	849.8	122.4
Bank Credit to Enterprises	4629.8	4187.8	3773.6	4427.0	8613.2	23598.8
Bank credit to government	-232.7	-1065.1	-1006.2	-591.9	316.2	6777.7
of which:						
Republic	-178.7	-917.8	-841.8	-401.5	209.7	7519.1
Local	-54.0	-147.3	-164.4	-190.4	106.5	-741.4
Official Capital and Reserves	..	..	..	..	..	-15245.1
Interbank Float	36.3			60		
Pension Funds						1580
Unclassified Assets	-850.6	545.4	538.8	189.0	..	4482.8

1/ Figures for end of period November 1992

Source: National Bank of Armenia

TABLE 7-1: ARMENIA: AGRICULTURAL PRODUCTION IN CONSTANT 1983 PRICES

	1988	1989	1990	1991 1/	1992
Total gross agricultural production	2662.5	2045.4	1792.0	2135.0	2163.4
Crop production	1363.8	900.7	811.2	1088.8	1253.2
of which:					
Grains	47.2	22.3	31.3	37.6	..
Geraniums	17.6	12.8	5.3	7.8	..
Potatos	68.1	50.9	40.6	60.4	..
Vegetables	932.4	659.0	576.7	805.0	..
Fruits 1/	293.9	154.0	156.4	176.8	..
Tobacco	4.6	1.7	0.9	1.2	..
Livestock production	1298.7	1144.7	980.8	1046.2	910.2
of which:					
Livestock	684.7	622.5	541.8	553.1	..
Cattle	684.7	622.5	541.8	553.1	..
Pigs	..	..	..	..	..
Sheep and goats	..	..	..	..	..
Poultry	..	..	..	..	..
Meat	306.0	244.0	196.0	265.0	..
Milk	210.0	196.0	169.0	159.6	..
Eggs	64.0	54.0	49.6	48.2	..
Wool	34.0	28.2	24.4	20.3	..
Agricultural services	..	..	..	..	..
Material inputs	..	..	..	..	..
of which:					
Crop production	..	..	..	..	..
Animal production	..	..	..	..	..
Agricultural services	..	..	..	..	..
Net material product	5901.0	6736.9	6164.0	5439.0	2725
of which:					
Crop production	23.1%	13.4%	13.2%	20.0%	46.0%
Animal production	22.0%	17.0%	15.9%	19.2%	33.4%
Agricultural services	..	..	..	..	..

Source: Dept. of Statistics (Armenia) and Bank estimates

1/ Including grapes and berries

TABLE 7-2 : ARMENIA: PRODUCTION OF MAJOR AGRICULTURAL CROPS (tons)

	1988	1989	1990	1991	1992
Grains	373,500	192,100	271,000	310,000	309500
Geraniums	19,300	28,000	6,500	8,500	..
Potatoes	207,300	266,300	212,000	316,000	324800
Vegetables	567,000	485,000	389,700	457,000	481000
Fruits	455,100	288,300	299,100	320,000	307900
Tobacco	8,800	3,000	1,700	2,200	..

Source: Dept. of Statistics (Armenia)

TABLE 7-3 : ARMENIA: AVERAGE YIELD PER HECTARE

	1981-85	1986-90	1990	1991
Grains	19.8	21.6	19.6	20.0
Potatoes	146.0	120.4	95.0	121.0
Vegetables	286.0	279.2	211.0	197.0
Fruits	52.8	51.8	42.6	46.7
Tobacco	27.4	26.1	22.4	22.5
Food (Melon)	130.0	132.9	65.2	80.1

Source: Dept. of Statistics (Armenia)

TABLE 7-4: ARMENIA: MAIN AGGREGATES OF ANIMAL HUSBANDRY

	1986	1990	1991	1992
	-----	-----	-----	-----
Livestock inventory (thousand heads)	3108	2311	2137	1814
Cattle	861	690	640	567
of which: Cows	319	260	251	251
Pigs	344	329	311	224
Sheep	1873	1277	1172	1006
Goats	30	15	14	17
Animal husbandry products				
Meat (thousand tons)	..	..	..	..
Milk (thousand tons)	..	..	375	412
Eggs (millions)	..	..	485	243
Wool (tons)	..	..	2419	2015

Source: Dept. of Statistics (Armenia)

TABLE 8-1 ARMENIA: INDUSTRIAL PRODUCTION BY SECTOR
(millions of current rubles)

	1988	1989	1990	1991
All Industry	1640.0	1536.0	1306.0	1351.0
Heavy Industry	747.0	643.0	499.0	398.0
Fuel-Energy Industry	296.0	258.0	225.0	0.0
Electricity	296.0	258.0	225.0	..
Fuel Industry	0.0	0.0	0.0	0.0
Electricity Equipment	107.0	103.0	81.0	36.0
Metallurgy	0.0	0.0	0.0	0.0
Machine-building	94.0	75.0	87.0	100.0
Pulp and Paper Industry	0.0	0.0	0.0	0.0
Petrochemical Industry	0.0	0.0	0.0	0.0
Forestry/Wood Products	0.0	0.0	0.0	0.0
Construction Materials	39.0	40.0	39.0	96.0
Rubber/Rubber Products	156.0	130.0	33.0	139.0
Chemical Knits	55.0	37.0	34.0	27.0
Light Industry	625.0	594.0	617.0	953.0
Textiles	349.0	309.0	282.0	522.0
Carpets	50.0	42.0	38.0	..
Leather and Shoe	226.0	243.0	297.0	431.0
Agric./food-processing	268.0	299.0	190.0	0.0
Food processing	108.0	132.0	91.0	..
Meat and dairy products	0.0	0.0	0.0	0.0
Fish	0.0	0.0	0.0	0.0
Beverages	160	167.0	99.0	..
Other Industry				

Source: Dept. of Statistics (Armenia) and Bank staff estimates

TABLE 8-2 ARMENIA: ELECTRICITY PRODUCTION AND CONSUMPTION

(In thousand tonnes oil equivalent)

	1985	1986	1987	1988	1989	1990	1991
Production	4074.0	4164.0	4271.0	4305.0	3367.0	3123.0	2890.0
Of which:							
Gas	836.0	1040.0	903.0	1297.0	1707.0	773.0	829.0
Mazout	1738	2166	2015	1624	1392	1987	1700
Hydro	378.0	315.0	342.0	358.0	268.0	363.0	361.0
Nuclear	1122.0	643.0	1011.0	1026.0	0.0	0.0	0.0
Imports	0.0	0.0	0.0	0.0	0.0	214.4	366.2
Of which: inter-republic	..	..	..	..	..	..	..
Total supply	4074.0	4164.0	4271.0	4305.0	3367.0	3337.4	3256.2
Of which: Production in %	100.0	100.0	100.0	100.0	100.0	93.6	88.8
Import in %	0.0	0.0	0.0	0.0	0.0	6.4	11.2
Annual Growth of Total Supply in %	..	2.2	2.6	0.8	(21.8)	(7.2)	(7.5)
Domestic consumption	0.0	0.0	0.0	0.0	0.0	0.0	775.0
Of which:							
Industry and construction							321.0
Agriculture							151.0
Transport							33.0
Other sectors							94.0
Households							176.0
Losses							
Exports	682.0	593.0	682.0	680.0	77.0	0.0	0.0
Of which: inter-republic							
Total uses	682.0	593.0	682.0	680.0	77.0	0.0	775.0
Net Export	682	593	682	680	77	-214.4	-366.2
Annual Change in %	..	(13.0)	15.0	(0.3)	(88.7)	(378.4)	70.8

Source: Ministry of Energy and Fuel

TABLE 8-3 ARMENIA: PRODUCTION OF MAJOR ENERGY PRODUCTS, 1987-1991

	1987	1988	1989	1990	1991
Crude petroleum (in millions of tons; including gas condensate)	0.0	0.0	0.0	0.0	0.0
Natural gas (in billions of cubic meters)	0.0	0.0	0.0	0.0	0.0
Coal (in millions of tons)	0.0	0.0	0.0	0.0	0.0
Electricity (in billions of kilowatts)	281.5	297.2	295.3	298.5	279.0

Source: Armenian authorities and Bank staff estimates

TABLE 9-1: ARMENIA: ACTUAL WAGES BY SECTOR (in millions of current rubles)

	1985	1986	1987	1988	1989	1990
AVERAGE	180.3	184.5	191.0	196.8	219.8	241.0
Material Sectors						
Industry	209.1	212.9	218.9	222.4	249.2	264.1
Construction	288.1	298.9	308.4	312.6	366.6	420.9
Agriculture	147.0	152.9	153.0	159.6	173.3	190.7
Transport	204.0	209.5	218.0	229.7	237.1	247.8
Communications	275.3	286.5	297.8	306.0	363.3	410.7
Trade (Retail and Wholesale)	135.7	133.6	134.6	137.9	146.9	169.9
Other Material Production	140.3	144.1	149.1	149.3	177.3	194.9
Non-Material Sectors						
Municipal Services	122.7	124.9	129.9	140.1	156.8	180.5
Science, Research & Development	177.0	181.3	188.1	205.1	246.1	262.1
Education	138.7	143.6	155.8	159.7	158.5	165.5
Culture	99.8	103.1	105.0	111.1	110.3	134.1
Arts	139.0	127.2	133.0	135.6	141.2	162.4
Health Care, Social Insurance, Sports	116.9	120.5	132.1	134.7	139.2	154.4
State Social Security	171.9	176.3	188.1	166.8	204.3	304.2
Government	157.2	163.0	167.7	171.3	203.9	295.8

Source: Statistical Yearbook of Armenia

TABLE 9-2: ARMENIA: DISTRIBUTION OF WAGES, DECEMBER 1992
(Current rubles)

-----MATERIAL SPHERE-----

	Average Wage (rubles)	No. of Workers (thousands)	Size of Wage (mn. rubles)
Industry	3073	360	1106
Agriculture	1566	400	626
Forestry	1107	4	4
Transport	2200	40	88
Communications	3485	..	0
Construction	3255	150	488
Retail trade and catering	1713	110	188
Material Supply	2354	4	9
Other branches	2038	32	65
			0
Total Material Sphere	2505	1100	2756

-----NONMATERIAL SPHERE-----

	Average Wage (rubles)	No. of Workers (thousands)	Size of Wage (mn. rubles)
Housing, public utilities and personal services	2000	70	140
Health care, physical culture and sports	2074	85	176
Education *	2410	190	398
Culture and art	1776	..	..
Science	2174	45	98
Credit and insurance	7713	8	62
General administration	3378	22	74
Total Nonmaterial Sphere**	2382	420	1000

* No. of workers for education, culture and art

** Excluding transport and communication

Source: Dept. of Statistics (Armenia)

TABLE 10-1 ARMENIA: HOUSEHOLD INCOMES, EXPENDITURES AND SAVINGS

(in millions of current rubles)					
	1987	1988	1989	1990	1991
(+) Income	4674.0	5303.0	8451.0	7958.0	14304.5
Wages and salaries	3657.0	3919.0	4856.0	5666.0	..
Wages	3255.0	3369.0	3938.0	4392.0	..
Wages from cooperatives	0.0	98.0	476.0	758.0	..
Other wages	94.0	109.0	137.0	172.0	..
Income from collective farms	154.0	142.0	121.0	141.0	..
Receipts from sales of agricultural products	155.0	201.0	183.0	202.0	..
Pensions and allowances	538.0	641.0	2487.0	852.0	..
Receipts from financial system	222.0	316.0	788.0	693.0	..
Other income	257.0	428.0	320.0	748.0	..
(-) Taxes and duties	550.0	599.0	711.0	844.0	..
(=) Disposable income	4124.0	4704.0	7740.0	7114.0	..
(-) Total expenditure	3648.0	3784.0	4346.0	4982.0	11843.4
Expenditure on goods	3258.0	3366.0	3890.0	4495.0	..
Expenditure on services	390.0	418.0	457.0	488.0	..
Other expenditure	0.0	0.0	0.0	0.0	..
(=) Saving	476.0	920.0	3394.0	2132.0	2461.1
Cash accumulation	..	..	..	..	..
Accumulation of savings deposits with Savings Bank	313.0	460.0	2038.0	1040.0	..
Other financial asset accumulation (net)	8.0	11.0	0.0	0.0	..
Memorandum item:					
Savings as percentage of disposable income	11.5%	19.6%	43.9%	30.0%	21.9%

Source: Dept. of Statistics (Armenia) and Bank estimates

Table 11-1: ARMENIA: GROSS FIXED INVESTMENT AT CURRENT PRICES

	(in millions of rubles)					
	1985	1986	1987	1988	1989	1990
Total	19710.0	21228.0	22277.0	21914.0	23517.0	24843.0
Material sphere	12499.0	13598.0	14212.0	14006.0	15324.0	16048.0
Industry	6116.0	6609.0	6863.0	6669.0	7594.0	7890.0
Agriculture	2725.0	2866.0	2984.0	2946.0	3033.0	3102.0
Construction	691.0	738	772	777	869	1047
Transport & communication	2222.0	2588.0	2722.0	2803.0	2981	3119.0
Trade & other material serv.	745	797.0	871.0	811.0	847.0	890.0
Non-material sphere	7211.0	7630.0	8065.0	7908.0	8193.0	8795.0
Housing	3826.0	3998.0	4207.0	4013.0	4252.0	4488.0
Community services	1347	1479	1573	1666	1746	1947
Health Care & Education	1142	1192	1292	1273	1251	1352
Science, Culture & Other						
Non-material services	896.0	961.0	993.0	956.0	944.0	1008.0
	As % of Total					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Material sphere	63.4	64.1	63.8	63.9	65.2	64.6
Industry	31.0	31.1	30.8	30.4	32.3	31.8
Agriculture	13.8	13.5	13.4	13.4	12.9	12.5
Construction	3.5	3.5	3.5	3.5	3.7	4.2
Transport & communication	11.3	12.2	12.2	12.8	12.7	12.6
Trade & other material serv.	3.8	3.8	3.9	3.7	3.6	3.6
Non-material sphere	36.6	35.9	36.2	36.1	34.8	35.4
Housing	19.4	18.8	18.9	18.3	18.1	18.1
Community services	6.8	7.0	7.1	7.6	7.4	7.8
Health Care & Education	5.8	5.6	5.8	5.8	5.3	5.4
Science, Culture & Other	0.0	0.0	0.0	0.0	0.0	0.0
Non-material services	4.5	4.5	4.5	4.4	4.0	4.1

Source: Statistical Yearbook of Armenia 1990

TABLE 11-2: ARMENIA: CAPITAL INVESTMENT BY INDUSTRY AND TYPE OF ACTIVITY

	1992 -----	
	Planned -----	Actual -----
Energy Sector (excl. gas)	572	563.5
Gas	103	132.6
Agriculture including forestry	554	514.3
Industry, total	443	287
Metallurgy	8	0
Construction	7	1.8
Chemicals	199	34.3
Machine Building	82	95
Light Industry	112	55.9
Flour	35	100
Other, material sphere	275	347
Transportation of goods	83	68.8
Maintenance of roads	133	241.6
Communication servicing material production	29	17.4
Retail trade and catering	30	18.8
Nonmaterial Sphere	4008	3533
Housing	2130	2062.5
Public utilities and personal services	1397	896.4
Health care	124	191
Education	351.2	377.8
Science and scientific services	5	5.5
Other, material and nonmaterial spheres	45	58.6
Total Capital Investment	6527	5941

 Source: Dept. of Statistics (Armenia)

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