鉱工業プロジェクト選定確認調査
（アルメニア民間セクター開発計画）
報告書

平成 10 年 6 月

国 際 協 力 事 業 団

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１．調査団派遣の背景

アルメニアは、１９９１年９月の独立後、市場経済化を標榜し、関連する法整備を行い、国営企業の民営化を推進した。しかしながら、民営化の企業は、経済危機による未払債務の増加、資金不足、企業経営の知識・経験不足等の問題を抱えている。

かかる状況から、アルメニア政府は日本政府に対し、平成９年度開発調査新規案件として、「民間セクター開発計画」を要請越した。日本側の協議の結果、採択には至らず、平成１０年度案件として、再度の要請が出された。

このような状況から、同国関係機関に要請の詳細な内容を確認するとともに、開発調査についての説明を行い、開発調査で対応可能かどうかの検討を行い、加えて、開発調査実施検討に必要な情報を収集することを目的として、鉱工業プロジェクト選定確認調査団が派遣された。
調査団の概要は別添１のとおりである。

２．調査・協議結果

（１）結論

アルメニア側との協議において、日本側は、日本の援助や開発調査について説明を行うとともに、先方の具体的な要望内容及び先方の実施体制を確認した。その結果、概ね、調査団の対処方針の枠内において合意が成立し、別添２の議事録に、その内容をとりまとめた。

また調査団は、帰国後、日本政府に対し、本案件を採択するよう提言する用意があることを先方に伝え、その旨を議事録に記載した。これは、今回の協議により、調査の枠組みについて対処方針の範囲での合意が成立したこと、及び調査の実施について先方関係者の十分な熱意が感じられたこと（注）の２点を踏まえるものである。

（注）調査滞在の最終日には、先方通産大臣自らが調査団と対応し、調査の内容について具体的な議論を行うなど、先方政府のハイレベルに、本件についての高い期待が感じられた（同大臣は、当方から事前に先方に送付した、検討メモにも自ら目を通していた。）。また、その他、財務経済省、外務省からも強い期待が寄せられた。

（２）具体的合意内容

今回の合意内容の概要は、次のとおり。

１）調査対象セクター

当初のアルメニア側要請は、「民間セクター」の振興をねらいとするものであったが、調査団から、調査対象セクターは製造業としたいとの意向を表明したところ、先方は基本的にこれに同意した。なお、アルメニア側から、アルメニアの製造業はソ連崩壊後多くの問題を抱えているものの、潜在的可能性が高い分野であり、同国の経済発展に寄与する分野であるとの認識

が表明された。

なお、製造業のうち、どのサブ・セクターを対象とするかについては、大臣との最終協議（滞在最終日午後）に、おいて、大臣自ら、次の4サブ・セクターについて希望の表明があったため、調査団は、今後の検討のたたき台として位置づけたうえで、これらのサブ・セクターを議事録に記録した。

●ハイテク産業
●電気・電子工業
●化学工業
●バイオテクノロジー

なお、上記提案のうち、ハイテク産業や、バイオテクノロジーなどは、JICAが実施してきたこれまでの同種の調査ではカバーした経験のないセクターも含まれており、それらのセクターを含めることについては、今後、アルメニア側から提供される予定の各セクターの概要、企業情報などを踏まえて、検討することとしたい。また、特に上記の「ハイテク産業」には、生産活動を一部活動として行っているR／D機関も含ませたいとの意向を先方は有しており、それらの扱いについても、実態を踏まえて検討していく必要がある。

これに関連して、アルメニア通産省は、現在、UNIDO及びUNDPの協力を得て産業政策を策定中であり、3月中にも最終案がまとまる予定である。その中で、産業開発のプライオリティが確認されることになっているので、本調査におけるサブ・セクターの選定作業に当たっては、そのような国家的な開発プライオリティにも十分に配慮することとしたい。

また、調査の対象企業に、「国有企業」も含めたいとの要望が、先方大臣から出された。これは、既存の民間セクター（その多くはここ数年において民営化したもの。）の育成だけでなく、今後民営化することが期待されている国有企業についても、その競争力を高めて、民営化をやりやすくしたいとの要望に基づくものであった。調査団は、これに対し、基本的に受け入れる方針を口頭で伝えた。

2）調査方法

当初、アルメニア側から、下記のとおりの要望が提出された。

1　約10のサブセクターについて、1セクターあたり3社、計30社を大づかみに調査し、セクターの概要を把握する。
2　上記の調査結果に基づき、セクターの発展ビジョンを描き、政府及び企業に対する提言を行う。
3　各業種についてモデル企業1社を選定し、詳細な調査及び指導を行う。
4　上記2及び3の結果を、セミナーなどを通じて、業種全体に波及させる。

上記の要望に対して、日本側は、調査フローチャート（別添2の議事録のANNEX IIを参照。）を提示し、以下のとおり提言したところ、アルメニア側はこれを基本的に受け入れ、詳細については、今後双方の協議で決定することとした。

（予備調査段階）

1　１０のサブ・セクター３０社（１セクターあたり３社）に対し、簡易調査を行う。
2　調査終了後、アルメニア側との協議を経て、対象サブ・セクター（４程度）を選定する。

（本格調査）

3　経済社会状況を調査する。
4　対象業種の現状、問題点、可能性等を調査する。
5　対象サブ・セクターから１社を選定し、詳細な企業診断及び指導・提言を行う。
6　調査結果に基づき、対象サブ・セクター振興のための政府及び企業に対する実行計画を策定する。
7　調査結果を広く普及させるために、セミナーを開催する。

また、日本側は、（１）調査実施は企業の情報開示が前提となること、（２）調査規模の制約から重点サブ・セクターは最大４つ程度とすること、をアルメニア側に申し入れた。

３）調査に当たっての留意事項

アルメニア側から、以下の点に留意し調査を実施したい旨要望があり、双方合意した。

1　輸出指向型サブ・セクターの選定
2　中小企業の振興
3　外資の導入
4　企業ニーズに応じた提言
5　日本・アルメニア双方の協力に基づいた調査

また、アルメニア側から、軍需産業の民需への転換支援についても配慮してほしい旨要望があった。今回の協議の席上では、コメントする余裕がなく、当方からは明示的な応答はしなかった（注）。

（注）この点については今後、案件が採択された暁において検討していくこととなり、詳細については、次回の日本側対処方針会議において諮ることとするが、基本的には、軍需産業関連企業に対する従来からの方針を踏襲して、「現在なお軍需品を生産している企業は、モデル企業などの直接的な協力対象企業とはしない」との方針で臨むこととし、次回協議の機会に先方に申し入れることとしたい（他方、「既に軍需品の生産をやめているが、民需への転換がうまく進まず苦境にある企業群」に対しては、積極的に支援すべきであろう。）。

（３）開発調査の説明

同国は開発調査を実施した経験がないことから、日本側はビデオ及びパンフレット「鉱工業

分野における開発調査」を用いて説明を行い、概ね理解を得られたものと思われる。
また、開発調査に際してアルメニア側のとるべき措置についても説明し、先方の了解を得た。

(4) 調査実施機関

アルメニア政府の要請書では、企業開発外国投資促進庁 (Enterprise Developement and Foreign Investment Promotion Armenian Agency：ＥＤＩＰＡ) が実施機関とされている。同庁は、要請書提出時には経済省の傘下にあった。その後の機構改革を経て、現在は、ＥＤＩＰＡの臨時代表は通商産業省 (Ministry of Industry of Trade) の次官が任命されており、通商産業省の傘下にあることが確認された。ＥＤＩＰＡは、２５名の正職員を有している。

ＥＤＩＰＡは、アルメニア開発庁 (Armenian Development Agency：ＡＤＡ) に発展的に改組されることが、通商産業省によって計画されている。ＡＤＡは、首相直轄の独立機関となり、その代表は首相によって任命される。ＡＤＡは、投資・輸出振興のために、企業や科学技術の調査・分析、情報収集・提供、企業支援、及びこれらの調整の役割を持つ。
ＡＤＡの設立は政府によって決定されるが、現在のところ、ADA設立の具体的なスケジュールは明らかにされていない。

一方、本開発調査実施に対しては、通商産業省中小企業振興局が、高い関心を示しており、調査結果（特に成功例）を中小企業全体に普及させることを希望していることが明らかになった。

通商産業省内で協議の結果、EDIPA (ADA) を主たる実施機関とすることが確定されたが、開発調査実施に際しては、その調査内容からも、中小企業振興局の協力が不可欠であり、双方の協力により調査が実施されることで関係者は合意した（ミニッツにも、投資促進と中小企業振興の２分野をそれぞれ担当する２名の通産省次官の双方が、共同で署名した。）。

(5) 調査関係機関

通商産業省の他、調査実施には関係機関の協力を得ることが必要となることから、調査団は財務経済省、民営化省、外務省に対し、調査が実現化された場合の協力を要請した。いずれの省庁も調査実施を歓迎し、実現化された場合の協力を了解した。
調査実施に際しては、関係機関のメンバーによるステアリング・コミッティを編成し、提言の策定や調査結果の普及に際し、効果的に活用することが望まれる。

３．その他調査の結果明らかになった事項

（１）他の機関の援助動向

本調査に関係する「中小企業開発」の分野においては、ＵＮＤＰ、世銀、ＵＳＡＩＤ、ＴＡＣＩＳが、資金供与、技術支援などの援助を行っている。

各援助機関からの情報収集、援助調整機関との協議を経た結果、サブ・セクターに着目した提言の策定というアプローチは、特に大きな重複は認められなかった。しかし、重点企業選定の際には、他の援助機関が技術協力を実施している企業と重複しないよう留意する必要がある。

また、同国のマクロ政策の大枠は、世銀やＩＭＦとの合意により策定されているので、本格調査実施の際にも、これらの動向は注視する必要があると思われる。

（２）援助調整機関

アルメニアの援助調整は、財務経済省の対外援助調整センター（Foreign Aid Coordination Center）が担当していたが、１９９８年１月に同センターは、Foreign Finance Management Center に改組され、世銀が実施する３プロジェクトの調整を主たる業務とすることとなった。

現在の援助調整は、暫定的に、次官直轄となっている。将来的には、Foreign Debt Management Department と Foreign Economic Relations Department 及び旧 Foreign Aid Coordination Center の一部が合併し、借款、無償資金協力、技術協力を含む対外援助全体の調整機関となることが計画されている。

（３）工場見学

今回、外務省のあっせんにより、民営の工作機械（フライス盤工場）を見学した。説明によれば、同工場は、現在操業率２０％程度、従業員も、最盛期の５００人から、現在は２００人程度に減少しているとのことであった。素人目ながら、設備・中間在庫などを見る限り、リストラは容易ではないとの印象であった。

ただし、アルメニア側は、振興すべき対象セクターとしては、上述（→p.２）のとおり、重厚長大産業には重きを置いていない可能性もあり（注）、今回の見学（１例のみ）の結果をもって、アルメニア産業の状況とポテンシャルを一般化することは、もとより避ける必要がある。

（注）アルメニアが内陸国であり、アゼルバイジャン及びトルコとの交通ルートも制約されていることを考えると、重厚長大産業の育成は、そもそもハンディを負っていると見るべきであろう。

（４）　所感

性急な判断は避けるべきであるが、今回接した限りでアルメニア人政府関係者について評価すれば、彼らは、概ねその態度において開明的であり、自国の発展について真摯に取り組む態度があり、また行政的・実務的能力においても優秀であると見受けられた（コミュニケーション能力にも長けており、英語は、ほとんどの政府関係者が極めて流暢に操る。）。また、帰路

たまたま同じ航空機に同乗した先方通産大臣は、エコノミークラスに搭乗しており、これを仮に、財政困難の折り緊縮財政に心がけているものと解釈できるとすれば、その精神は大いに評価できるものといえよう。

4．今後の予定

案件が採択された場合の、今後の予定は以下のとおり想定される（先方には未提示）。

平成１０年４月	事前調査担当コンサルタント選定手続き
平成１０年５～６月	事前調査 ・Ｓ／Ｗ署名 ・コンサルタントによる簡易調査（1サブ・セクター３社、１０程度のサブ・セクターを調査） ・調査結果により、重点4サブ・セクターを選定。
平成１０年６～７月	本格調査担当コンサルタント選定手続き
平成１０年８月	国内準備作業
平成１０年９月	第１次現地調査 ・本格調査実施期間は1年程度
平成１１年８月	ドラフト・ファイナル・レポート説明調査団
平成１１年９月	ファイナル・レポート提出

5．その他の留意すべき事項

（１）大統領選挙後の動向

同国では、９１年の独立以来その地位に就いていたテル・ペトロシャン大統領の辞任に伴い、３月１６日に大統領選挙が行われる。大統領選挙後も、同国の市場経済化推進の方針は変わらないものと見られている。すでに前大統領派であった有力者（エレヴァン市長、国会議長、外務大臣）は辞任しており、現在の閣僚、政府機関幹部に大きな変化はないという情報もあるが、大統領選挙後、本プロジェクトに関係する省庁（特に通商産業省）の動向は、注視する必要がある。

以　　上

調査団概要

（1）調査団構成

1）	団長・総括	加藤　宏	国際協力事業団鉱工業開発調査部工業開発調査課長
2）	技術協力政策	光安　達也	外務省経済協力局開発協力課
3）	技術協力行政	荒木　英輔	通商産業省通商政策局ロシア東欧室
4）	開発計画	原　純子	国際協力事業団企画部地域第三課ジュニア専門員
5）	調査企画	朝熊　由美子	国際協力事業団鉱工業開発調査部工業開発調査課
6）	通訳	小原　志浦	財団法人日本国際協力センター

（2）派遣期間

平成10年2月21日（土）から3月1日（日）まで

（3）調査日程

平成10年2月21日	（土）	原団員現地着
2月23日	（月）	原団員：UNDP、EU－TACIS訪問 原団員以外：成田発ロンドン着、同発（機中泊）
2月24日	（火）	原団員以外現地着　外務省、財務経済省、通産省（EDIPA）訪問
25日	（水）	世銀訪問、通産省協議
26日	（木）	民営化省協議、工場見学（フライス盤工場）
27日	（金）	USAID訪問、通産省協議、ミニッツ署名、 財務経済省対外援助調整センター報告
28日	（土）	現地発、ロンドン経由帰国（3月1日） 朝熊団員は、モスクワ経由キルギス・カザフへ （大杉書記官にモスクワにて非公式報告）

（4）主要面会者

<u>Ministry of Industry and Trade</u>

Mr. G. Nanagoulian	Minister
Mr. G. Yeghiazarian	Deputy Minister cum Acting Director of EDIPA
Mr. A. Petrossian	Deputy Minister
Mr. G. Stepanyan	Head of Department of Small and Middle-Sized Enterprise Promotion

<u>Ministry of Foreign Affairs</u>

Mr. A. Baibourtian	Deputy Minister
Mr. M. Mavisakalian	Director of Asia-Pacific and Africa Department
Mr. M. Vardanian	Head of North-Asia Desk, Asia-Pacific and Africa Department

<u>Ministry of Finance and Economy</u>

Mr. A. Gharibian	Deputy Minister
Mr. A. Nazikian	Executive Director, Foreign Financing Projects Managing Center
Mr. G. Pirumov	Head of Main Department of Computer and Technologies

<u>Ministry of Privatization</u>

Mr. A. Kalantaryan	Head of International and Public Relations Department

附 属 資 料

1. Minutes of Meeting
2. ATTENDANCE LIST OF THE MEETING
3. Industrial Sector of Armenia, Enterprise Development and Foreign Promotion Armenian Agengy

1. Minutes of Meeting

Minutes of Meeting
between the representatives
of
the Ministry of Industry and Trade of
the Republic of Armenia
AND
the JICA Project Identification Study Team
on
a Study for the Private Sector Development
in
the Republic of Armenia

Yerevan, February 27, 1998

G. Yeghiazarian
Deputy Minister
Ministry of Industry and Trade
Acting Director of EDIPA
Republic of Armenia

H. Kato
Leader
Project Identification Study Team
Japan International Cooperation Agency (JICA)

A. Petrossian
Deputy Minister
Ministry of Industry and Trade
Republic of Armenia

A. Baibourtian
Deputy Minister
Ministry of Foreign Affairs
Republic of Armenia

On instruction by the Government of Japan, the Japan International Cooperation Agency (JICA) dispatched a project identification study team ("the Team") to the Republic of Armenia from February 24 to 27, 1998. The purpose of the visit of the Team was to have discussions with the Armenian authorities concerned on a proposal made by the Government of Armenia for a development study project for private sector development.

During the stay of the Team in the Republic, the Team had a series of meetings with the representatives of the Armenian authorities concerned. A list of attendants of the meetings is given as Annex I.

On February 27, a wrap-up meeting was held at the Ministry of Trade and Industry, and this minutes of meeting summarizes the major points discussed and agreed on in the meeting.

1 Conclusion

(1) Study Framework

The Team and the representative of the Armenian authorities (hereinafter collectively "both sides") discussed the framework of the study project (hereinafter "the Study"), based on the original request made by the Armenian Government and also on a presentation paper prepared by the Team. After extensive discussions, both sides came to agree on the general framework of the Study as summarized in chapter 2 below, while understanding that the agreed framework is tentative and is subject to further modification, development or refinement, as necessary.

(2) Further Steps to Follow

The Team stated that it is prepared, upon its return to Japan, to recommend the Japanese Government to take up the Study in fiscal year 1998 (April 1998 - March 1999), based on the agreement reached as mentioned above and given the importance and significance of the Study.

The Team also stated that, if its home government makes a favorable decision on this matter, JICA will send another mission to Armenia shortly, to make official agreement with the Armenian side and to kick-off the Study.

2 Framework of the Study

(1) Target of the Study

By specifying the target of the Study originally suggested by the Armenian Government, i.e., the private sector in general, both sides now agreed that the Study will cover, as its primary target, the manufacturing sector. This modification was made in order to focus the scope of the Study to a manageable width and thus to produce tangible outcomes with the limited resources.

(2) Procedural flow

Based on the various requests expressed by the Armenian side on several meetings and drawing on the past project experiences of JICA, the Team proposed that the Study be implemented as illustrated in the flowchart given in **Annex II**. The Armenian side basically welcomed and agreed to the idea expressed in the proposal, while maintaining that the details are to be discussed and elaborated further.

According to the flow discussed, the Study would pursue two lines of surveys: a sector survey and a enterprise-level survey:

1) The sector survey will cover selected industrial sub sectors (**See (3) below.**) and will start with the review of the business environment and identification of strengths and weakness, and potentials of the sub sectors. The sector survey then goes on to the elaboration of development vision and scenario of the sub sectors, which will be coupled with specific recommendations on measures to be taken by the enterprises for their development and also on measures by the Government to facilitate such development.
2) The enterprise- level survey intends to go deeper into individual model enterprises, i.e., enterprises with high potentials for development (**See (3) below.**), and to work out practical and realizable development plans for them. In addition, the enterprise-level survey will also provide the model enterprises with specific suggestions and practical guidance for the improvement of productivity, quality management, and others, intending to realize tangible improvements even during the Study period.
3) The Study will organize various activities including organization of seminars, so that findings obtained and lessons learned from the above-mentioned sector survey and enterprise survey will be shared as widely as possible.

(3) Sub sectors to be covered

Both sides agreed that they will decide the target sub sectors (See (2) 1) above.) and model enterprises (See(2) 2) above.) before the commencement of the Study, based on and starting from the following tentative list of target sub sectors and model enterprises suggested by the Armenian side.

<u>Tentative list of target sub sectors</u>

- Hi-Tech / Research and Development Institutes
- Electronics and electric engineering
- Chemical Industries
- Bio-technology

In this connection, the Team stated that JICA would rather limit the number of target sub sectors to a manageable level, say four maximum, given the limitation of resources available at JICA. Thus both sides agreed to select the sub sectors, so that maximum benefit can be derived from the Study with the available resources.

3 Important Considerations

While working out the study framework as described in 2 above, both sides noted that:

1) the Study should basically focus on development of the export oriented manufacturing sector;
2) the Study should be conducted in such a way that it will produce specific and tangible achievements, especially in the enterprise-level survey, in order to obtain informative lessons and to send out clear messages to interested enterprises; and also to develop a set of recommendations for institutional development that are based on real and pressing needs of the enterprises;
3) the Study should pay due attention to the development of small and medium-sized enterprises, given their important position in the Armenian industrial structure
4) since the Study will largely rely on information provided by enterprises, it is imperative that the Study will select those enterprises, both for sector survey and enterprise-level survey, that are willing to accept the Study team and provide requested information; <u>and</u>
5) careful selection of the model enterprises is of critical importance for the success of the Study.

4 Administration and Logistical Support of the Study

(1) Responsible Ministry and Department

The Armenian side confirmed that the Ministry of Industry and Trade will be responsible for the implementation of the Study, and Enterprise Development and Foreign Investment Promotion Armenian Agency - EDIPA- (Armenian Development Agency) will act as the implementing body as well as a coordination point among the various relevant authorities, including, *inter alia*, the Ministry of Finance and Economy, the Ministry of Privatization, and the Ministry of Foreign Affairs.

(2) Study as a joint work

Both sides confirmed that the Study is by nature a joint work by the Armenian and Japanese sides. In this connection and as a matter of course, the Armenian side confirmed its willingness to bear, within its budgetary limitations, the necessary expenses to cover the costs not covered by JICA. In addition to such financial contribution, the Armenian side stated that it will secure reasonable number of counterpart personnel to work together with the JICA consultant team.

(3) Undertakings by the Armenian side

The Armenian side reconfirmed that it is prepared to take the measures listed in chapter 3 of its request letter, dated 29 August 1996, addressed to the Japanese Government.

5 Miscellaneous Matters

(1) JICA's "development study" cooperation scheme

With the help of a video tape and pamphlets, the Team gave a general presentation on "development study," one of JICA's cooperation schemes. The following are the salient points of the presentation:

1) JICA will contract-out the Study to a team of consultants, selected by JICA.
2) Before commencement of the actual study work, a document called "Scope of Work ("S/W") will be signed between the next JICA team dispatched to Armenia (**See 1(2) above.**) and an Armenian counterpart organization. The standard format of a S/W is presented in the pamphlet distributed.
3) A draft of the S/W for the Study will be proposed by JICA before the visit of its next team to Armenia.

(2) Invitation of Armenian Project Members to Japan

The Team stated that within the framework of the Study, JICA is willing to invite some Armenian project members to Japan for observation, discussion, and/or joint work with the team of consultants.

2. ATTENDANCE LIST OF THE MEETING

ANNEX I

ATTENDANCE LIST OF THE MEETING

[ARMENIAN SIDE]

<u>Ministry of Industry and Trade</u>

Mr. G. Nanagoulian	Minister
Mr. G. Yeghiazarian	Deputy Minister, Acting Director of EDIPA
Mr. P. Petrossian	Deputy Minister
Mr. G. Stepanyan	Head of Department of Small and Middle-Sized Enterprise Promotion

<u>Ministry of Foreign Affairs</u>

Mr. A. Baibourtian	Deputy Minister
Mr. M. Mavisakalian	Director of Asia-Pacific and Africa Department
Mr. M. Vardanian	Head of North-Asia Desk, Asia-Pacific and Africa Department

<u>Minister of Finance and Economy</u>

Mr. A. Gharibian	Deputy Minister
Mr. A. Nazikian	Executive Director, Foreign Financing Projects Managing Center
Mr. G. Pirumov	Head of Main Department of Computer and Technologies

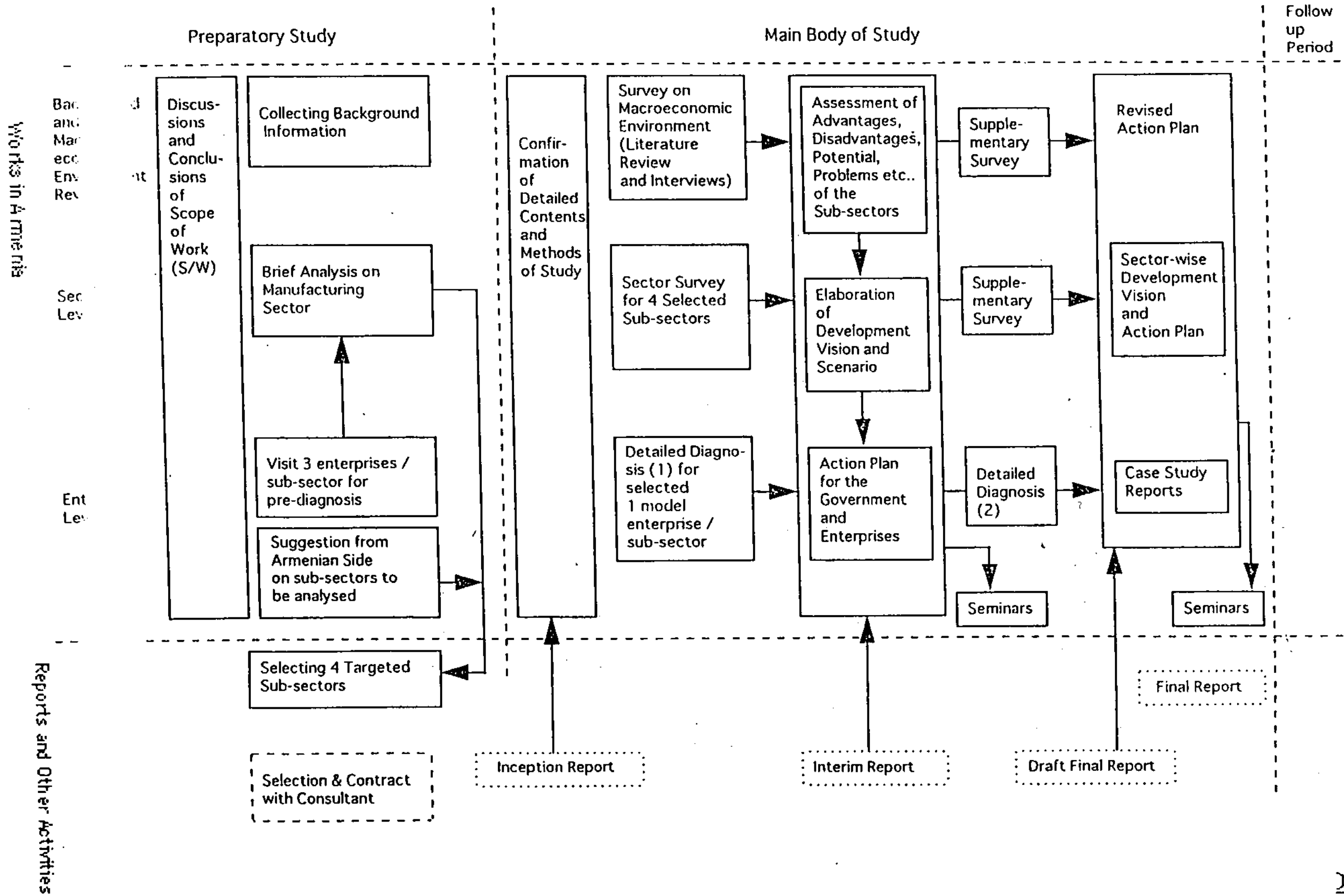
<u>Ministry of Privatization</u>

Mr. A. Kalantaryan	Head of International and Public Relations Department

[JAPANESE SIDE]

<u>Member of the Project Identification Study Team</u>

Mr. H. KATO	Director Industrial Development Study Division Mining and Industrial Development Study Dept. Japan International Cooperation Agency (JICA)
Mr. T. MITSUYASU	Development Cooperation Division Economic Cooperation Bureau Ministry of Foreign Affairs (MOFA)
Mr. E. ARAKI	Former Soviet Union and Central and Eastern Europe Office International Trade Policy Bureau Ministry of International Trade and Industry (MITI)
Ms. J. HARA	Junior Expert Third Regional Division Planning Dept. Japan International Cooperation Agency (JICA)
Ms. Y. ASAKUMA	Industrial Development Study Division Mining and Industrial Development Study Dept. Japan International Cooperation Agency (JICA)
Ms. S. KOHARA	Interpreter Japan International Cooperation Center (JICE)


Preparatory Study
Main Body of Study
Follow up Period
Discussions and Conclusions of Scope of Work (S/W)
Collecting Background Information
Brief Analysis on Manufacturing Sector
Visit 3 enterprises / sub-sector for pre-diagnosis
Suggestion from Armenian Side on sub-sectors to be analysed
Selecting 4 Targeted Sub-sectors
Selection & Contract with Consultant
Confirmation of Detailed Contents and Methods of Study
Inception Report
Survey on Macroeconomic Environment (Literature Review and Interviews)
Sector Survey for 4 Selected Sub-sectors
Detailed Diagnosis (1) for selected 1 model enterprise / sub-sector
Assessment of Advantages, Disadvantages, Potential, Problems etc.. of the Sub-sectors
Elaboration of Development Vision and Scenario
Action Plan for the Government and Enterprises
Interim Report
Supplementary Survey
Supplementary Survey
Detailed Diagnosis (2)
Seminars
Revised Action Plan
Sector-wise Development Vision and Action Plan
Case Study Reports
Seminars
Draft Final Report
Final Report
Works in Armenia
Reports and Other Activities

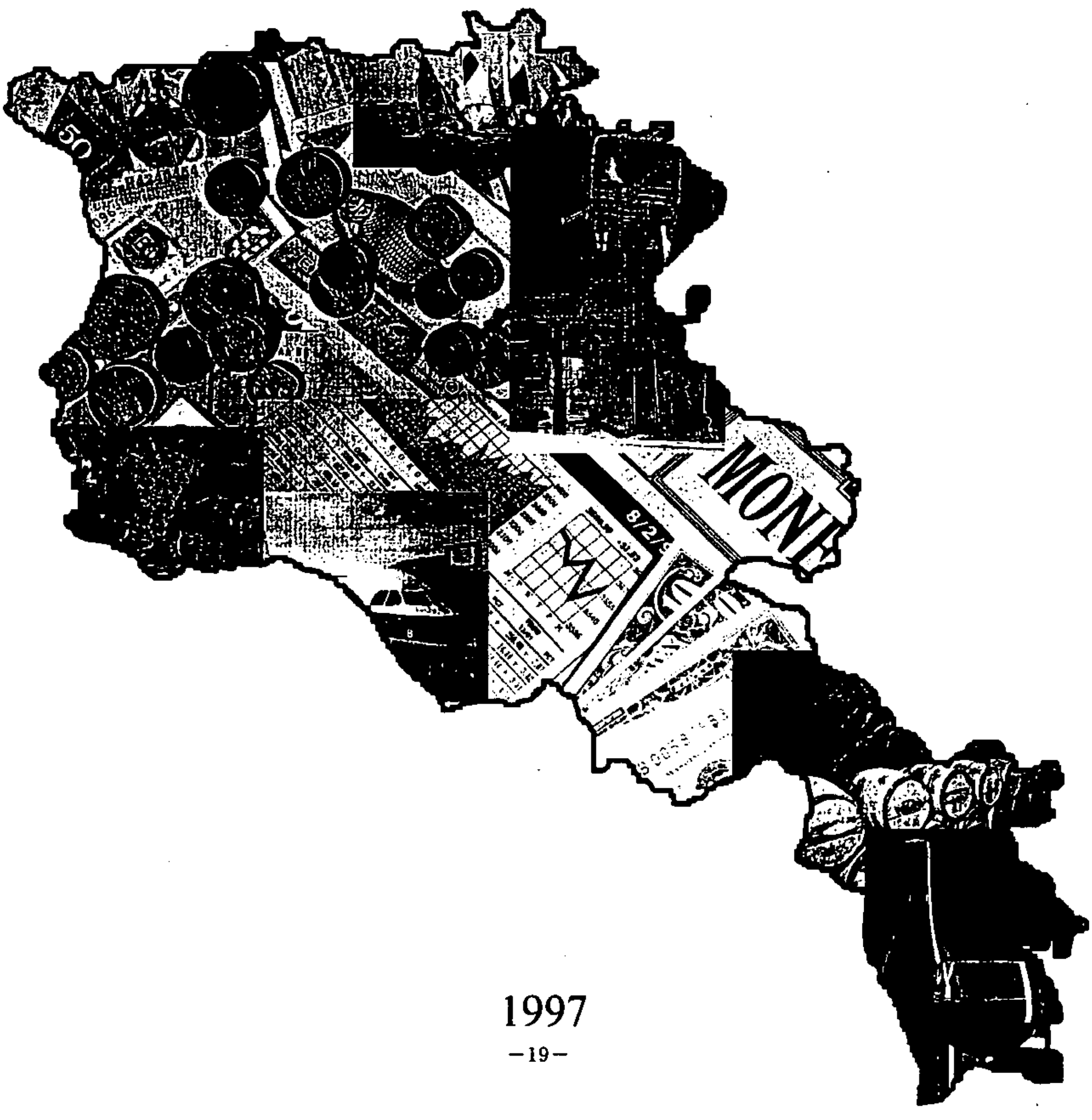
3. Industrial Sector of Armenia, Enterprise Development and Foreign Promotion Armenian Agengy

EDIPA

ENTERPRISE DEVELOPMENT AND FOREIGN INVESTMENT PROMOTION ARMENIAN AGENCY

INDUSTRIAL SECTOR OF ARMENIA

FACTS AND FIGURES



1997

MINISTRY OF INDUSTRY AND TRADE OF THE REPUBLIC OF ARMENIA

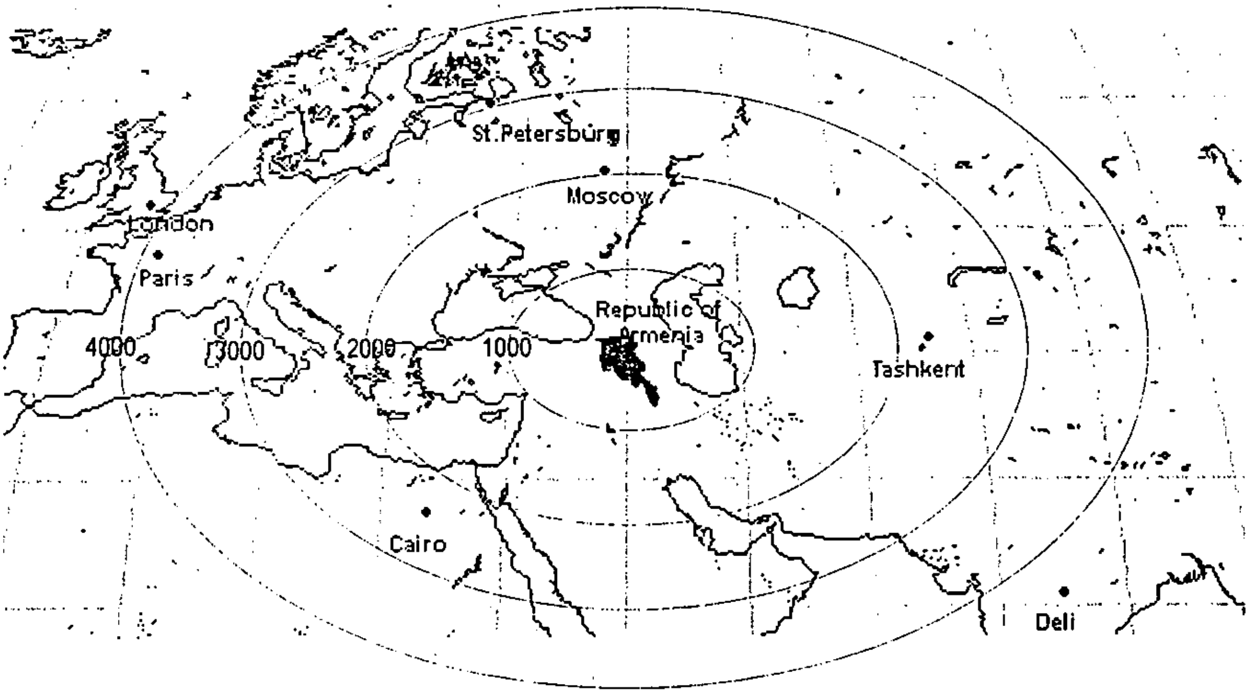
EDIPA

ENTERPRISE DEVELOPMENT AND
INVESTMENT PROMOTION
ARMENIAN AGENCY

INDUSTRIAL SECTOR OF ARMENIA

FACTS AND FIGURES

YEREVAN, NOVEMBER-1997



REPUBLIC OF ARMENIA

CROSSROADS BETWEEN EUROPE AND ASIA

Dear Business Partners,

This booklet is published by EDIPA, Enterprise Development and Investment Promotion Armenian Agency of the Ministry of Industry and Trade. "Industrial Sector of Armenia" covers all the mining and manufacturing industries except for bakery and food processing (accounting for 55% of gross industrial product) which were described earlier in "Agribusiness Sector of Armenia". Also, the data provided concern the *originally* state-owned sector of industry.

Intended to facilitate business decision-making, the booklet is packed with essential information and is presented using clear, easy-to-understand graphs and charts. Our aim is to assist those interested in making investment in Armenia and establishing lasting business relations. We have applied various sources to provide the most reliability of the information submitted. We understand that in a fiercely competitive world, a location can make a big difference.

"Industrial Sector of Armenia" provides business people a new way of looking at Armenia, a country of fast-moving changes and advancement. We will highly appreciate your comments on the booklet provided!

Contents

INTRODUCTION

The Republic of Armenia, a bridge between Europe and Asia, represents an exciting new location prospect for globally competing industrial companies.

Armenia enjoyed a prominent position among the world's economies for its super-quality industrial products such as jewelry, building materials, chemicals, biotech, radio electronic products, machine tools, devices, etc.

Nowadays operating in an open international market, the Armenian industry has rationalized and restructured. New formed private and privatized firms and companies now form the basis of the Armenian industrial sector.

Future developments will bring opportunities to entrepreneurial local companies and international groups seeking cost-effective, high quality, mining and manufacturing locations giving access to the C.I.S. as well as various European and Asian markets. Operational benefits have already spurred significant investment in the country by a range of famous international companies like Siemens, Transgold, etc.

A major study of the net industrial sector, the third in a series of economy studies by EDIPA, highlights the principle reasons why international firms and enterprises have so much to gain from doing business in Armenia. This report summarizes some of the key information prospective investors in the Armenian industry will wish to know.

Set up to act as a single source of quality information and consultancy, EDIPA can provide further details to meet individual companies' specific information needs and help reduce the inevitable "start up pain".

10 GOOD REASONS TO INVEST IN ARMENIA

1 strategic axis status

The country offers outstanding accessibility to burgeoning markets in the FSU countries and extensive markets of a range of European and Asian countries.

2 economic and political stability

Armenia is one of the few countries among the CEU and FSU with a continuous four-year growth of national economy. In 1996 inflation was halved to 10%, GDP grew by 5.8% and unemployment kept in check at 9%.

3 risk contraction

The above mentioned macro economic performance and outstanding cost efficiencies mitigate the risks associated with investing in a new venture.

4 international business faith

In a survey of Eastern and Central Europe and the former Soviet Union conducted by famous Western experts and presented in the January-1996 issue of the *Central European Economic Review*, Armenia received one of the middle ratings of the 26 countries surveyed, receiving the second score in economic growth.

5 property options

Outstanding sites capable of satisfying the most stringent logistical, infrastructure, technical and environmental demands of industrial companies have been identified. Modern existing production units are also available.

6 labor quality and availability

The Armenian people are among the best educated in the world. Industrial experience and knowledge are particularly large and diversified. 20.4% of the Armenia's workforce are employed in industry. Redundancies from privatization continue to increase the pool of qualified and highly skilled labor available to new inward investors.

7 labor cost effectiveness

Labor costs can be 5-10 and 10-15 times less than in most of the CIS and CEU countries respectively. But more significantly, productivity of some joint ventures in Armenian industry is in line with that in Western Europe.

8 market dimension

Beyond accessing the growing CIS markets with about 280 million of population, the 3.7 million domestic consumer market itself provides a good basis for initial developments. Presently Armenia imports over 70% of the manufactured items consumed.

9 established infrastructure and supply base

Armenia has increasingly been improving its industry composition and product structure as well as mining and manufacturing resources to the needs of today's international industry, offering quite impressive production and sale capabilities.

10 EDIPA

Makes it easier to establish an operation in Armenia. We can draw the strands of a development package together and reduce the burden on companies' management resources by providing quality data for investment appraisals. Acting on behalf of the Government EDIPA's services are of modest charge.

GENERAL ECONOMIC PERFORMANCE

Armenia's level of stability, both political and with regard to rapid liberalization and privatization, has no parallel in any of the region countries. Launched on 1991, Armenian economic reform has aimed to re-integrate the national economy with those of the developed world marked through privatization, liberalization of prices and foreign trade, the establishment of internal currency convertibility, macro economic stabilization, and the attraction of foreign direct investment.

In a survey of Eastern Europe and the former Soviet Union conducted by famous Western experts and presented in the January-1996 issue of the *Central European Economic Review* periodical, Armenia received one of the middle ratings of the 26 countries surveyed, receiving the second score in economic growth. Among the FSU countries, Armenia took the sixth place. The *Euromoney Magazine*'s country risk rating-1996 gave to Armenia a total score 28.92 for September placing the country on the 137th position amid the 178 countries rated. Again, Armenia turned out to be the 6th one amongst the FSU countries.

As a result of measures for the stabilization and structural improvement of the economy the macroeconomic stabilization and economic growth trend has begun from the second half of 1994. The major achievement has been the halting of a precipitate decline in **GDP** which in 1994 grew by 5.4%, recording respectively 6.9% and 5.8% growth in 1995 and 1996. In January-June 1997 GDP increased by 1.4% as compared to the same period of the last year. **Inflation rates** have continued to decrease after the high 1,800 % average inflation rate in 1993 caused by introduction of the national currency, dram (AMD) in November 1993. Average inflation dropped to 420% in 1994, 23% in 1995, and 10% in 1996. For the first half of 1997 average monthly inflation made 2.4%. Since mid-1994, **the exchange rate**, which is free to float has also stabilized. For 1996, Armenia's US $ 155 **national debt per capita** is the lowest among the FSU countries, particularly being much less than in its nearest competitor Georgia (US $ 412).

Such economic policies have led to improved ratings. In March-September 1996, Armenia improved its rank as an attractive business partner by 13 points shifted from 150th to 137th position among the above rating by *Euromoney Magazine*. Of the FSU countries, only Lithuania, Latvia, and Russia registered higher increase in the betterment of partner image.

Macro Economic Data

Financial and economic data	1993	1994	1995	1996	1997*
GDP (USD in bn)	1.39	1.47	1.57	1.66	-
GDP, % change from 1 year ago	-14.8	6.9	5.8	5.8	1.4
Industrial production, % change from one year ago	-10.3	6.9	2.4	1.2	-2.9
Inflation Rate (yearly)	1,800	420	23	10	14.4
Unemployment Rate (percent)	5.4	5.8	6.9	9.3	10.4
Number of unemployed (thousands)	87	92	111	121	168
Exports (USD in mln)	67	130	218	287	92.5
Imports (USD in mln)	117	261	585	850	418.5
Trade balance (USD in mln)	-50	-131	- 367	-563	-326
Retail sales (increase in %)		-1.4	54.0	12.5	3.8
Average wage Real (%)		271	240	120	118
Average monthly wage (gross) USD	2.4	6.5	15.6	22	25.5
Gross foreign debt (USD in mln)	107.5	200.4	376.7	580	595
Consumer Prices, % change from one year ago	37 times	18 times	29.1	18.7	15.2
Exchange rate (period average) per USD	14	330	405	441	480

* January - June

ARMENIAN INDUSTRY OVERVIEW

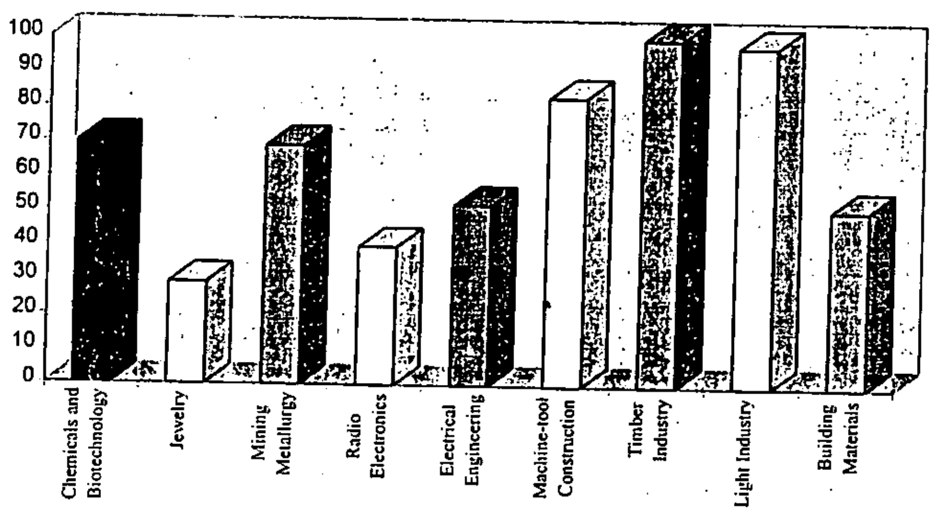
Within the former Soviet Union framework, the Armenian industry sector was economically healthy and technically advanced. The Armenian industrial professionals largely succeeded in developing original technologies for producing high-grade chemicals, machine-tools, electrical items, jewelry, textile, etc.

In the period of from 1960 to 1980, there was virtually an industrial boom in Armenia. The establishment of new enterprises accompanied with science and research development. An important factor was the availability of multibranch higher and secondary educational institutions enabling to train engineering and scientific manpower as well as skilled workforce. In 1987 the gross industrial output increased 8.. times as compared to 1960. The national industry was mainly targeted at meeting the needs of other regions within the FSU. Moreover, a range of Armenian companies producing synthetic rubber, acetylene filters, melamine, micro electric motors, pumps, generators, aluminum foils, molybdenum concentrates, etc. were either monopolists or provided the bulk of the overall market demand.

However, starting with 1991 Armenia found itself in a rather difficult economic situation. With the collapse of the USSR the ties between enterprises were broken, and the traditional markets were lost. The situation became complicated due to the earthquake (1/3 of productive capacities became idle) and the conflict over Nagorno Karabakh (the transport communications were blocked).

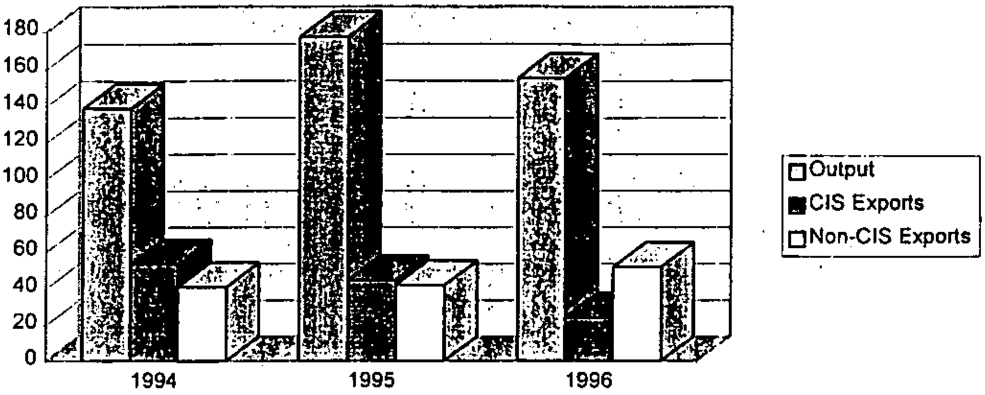
Despite the hardships and difficulties inevitable in the way of creating an independent state, and moving from centrally-planned to market-oriented economy, the Armenian government has started and been continuing its impressive economic reform program with focusing on transferring the public property to private hands. Reforms in the industry since 1990 have made important, successful reconstructions which, today, yield significant opportunities for the inward investor. Out of 435 industrial sector enterprises 252 (58% of the total) were privatized by 1997, including 16 in timber industry (100%), 15… in light industry (75%), 17 in machine-tool construction (57%), 10 in chemicals and biotechnology (48%), 8 in mining metallurgy (47%), 11 in electrical engineering (36%), 15 in building materials (35%), 16 in radio electronics (27%), and 1 in jewelry (20%). As of October 1, 1997, the privatization was completed in 368, or about 85%, of formerly state-owned enterprises. The companies of private and mixed property account for about 92% of the industrial output.

Industry Privatization Ratio by October-1997, %



Due to the privatization process, blockade, and transitional difficulties the Armenian industry has not been in condition to fully realize its available potential. However, this did not bring about a sharp decline in the sector. Moreover, since 1994 there have been good signs of a revival of production and sales. During 1994-1996 the industrial output increased 11.5%, from USD 139 to 155 million. Although the total exports fell 9%, the figure for non-CIS countries improved by 27% signing the reorientation of Armenian industry towards new (especially, advanced) markets.

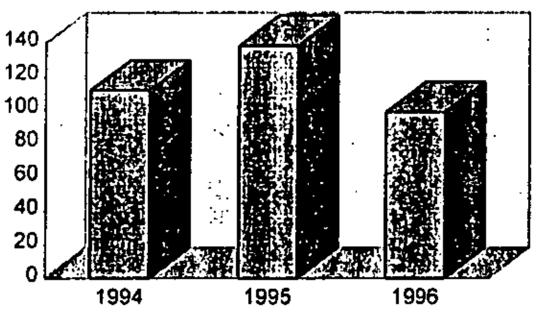
Industrial Output and Exports, USD mln



In January-June 1997, the output amounted to USD 55 million. Exports made 42.8 mln, or 78% of the produce, of which to non-CIS countries - 38.9 mln (91% of the total).

In 1996, around 100,000 people were engaged in the industrial sector of the Republic of Armenia against 138,000 in 1995, and 112,000 in 1994. The variation and eventual decrease in the number of employees (by July-1997 to 75,000) has been a result of the restructions took place in the industrial system.

Industrial Employment, thousands



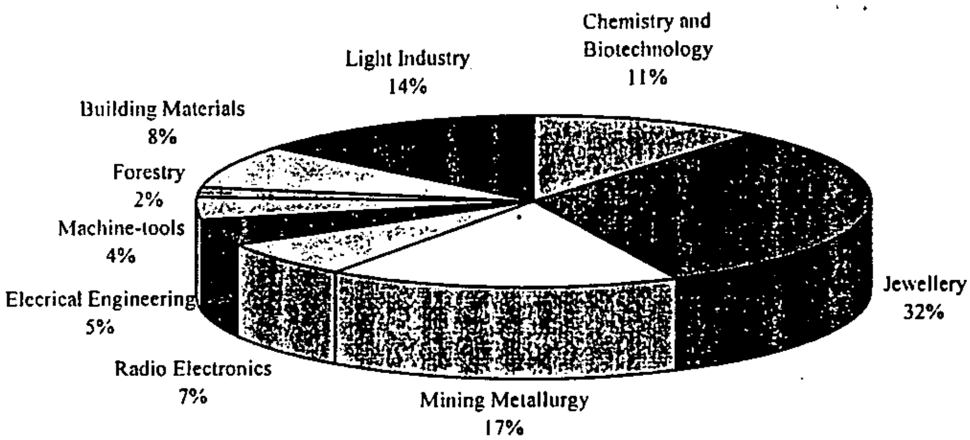
Market forces are driving new productive opportunities. A number of companies, able to operate competitively with foreign firms, are having significant success in developing business links with major international industrial firms.

The Armenian Government's principal strategic aim is to raise the country's export of such manufactured items as machines and equipment from the 1996 12% to 30% by 2000, with the help of greenfield foreign investment and joint ventures with local producers.

STRUCTURE OF THE INDUSTRIAL SECTOR

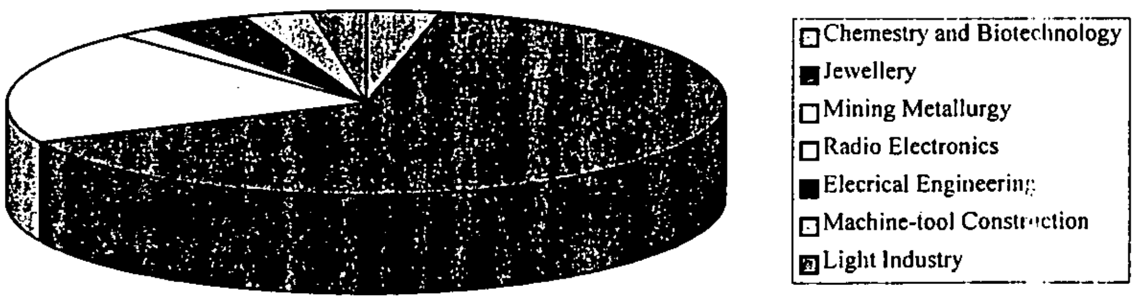
The firms have been oriented towards the production of products-in-shortage which brought about considerable structural changes in the industrial sector of economy. Presently the dominating branch of Armenian industry, namely jewelry, accounts for 34% of the total industrial output followed by mining metallurgy (17%), light industry (14%), and chemicals and biotechnology (11%).

Industrial Output Structure - 1997



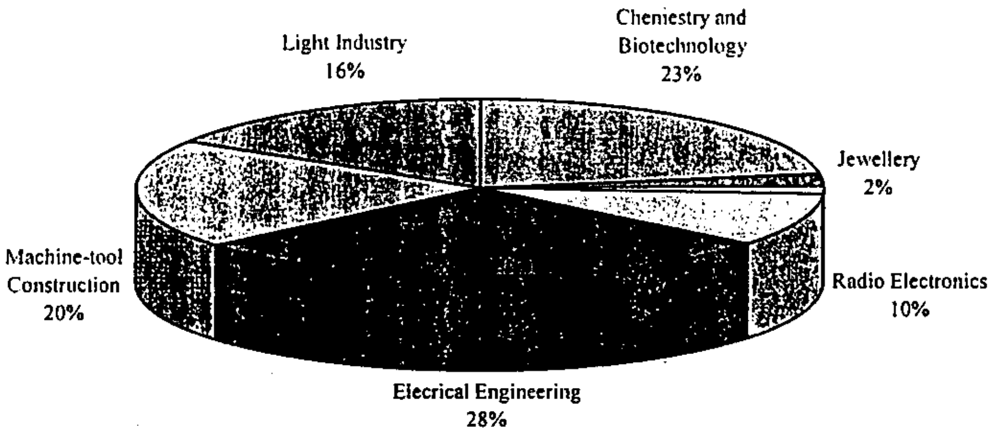
As to the industrial exports, it is the two branches, particularly jewelry and mining metallurgy, that provide the bulk of exporting items. Meanwhile, chemical industry and machine-tool construction have been demonstrating an increasing export potential.

Industrial Exports Structure - 1997



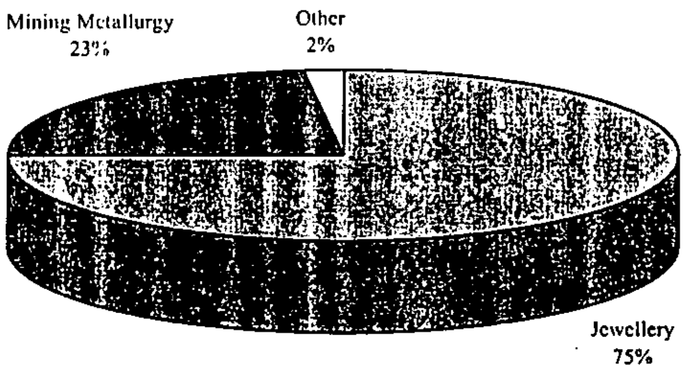
The industrial exports to CIS countries is mainly composed of electrical and chemical items accounting for 51% of sales in those markets.

CIS Exports Structure - 1997



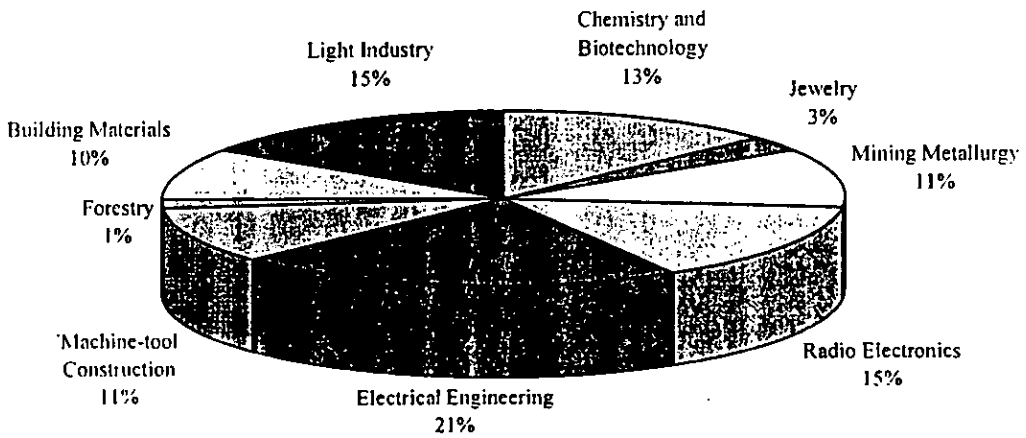
As to the industrial exports to non-CIS countries, the two branches, jewelry and mining metallurgy, themselves account for about 98% of the total sales.

Non-CIS Exports Structure - 1997



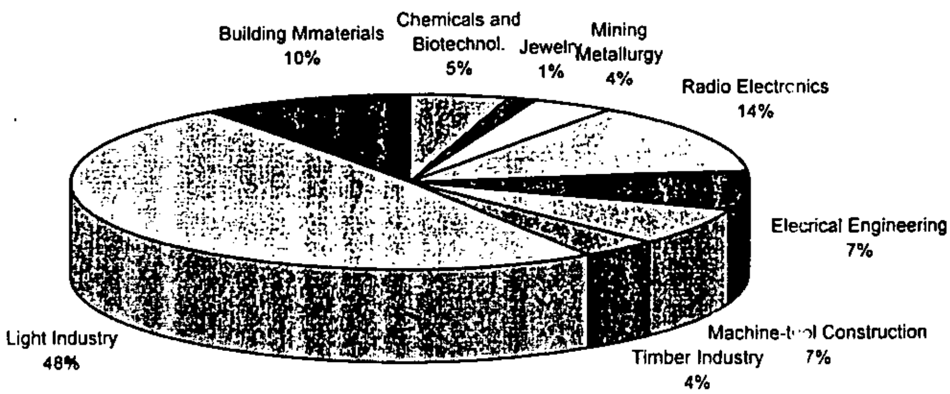
Employment in the industrial sector is characterized by the high shares of electrical engineering, radio electronics, and light industry (totally 51% of workforce), followed by chemicals and biotechnology and machine-tool construction.

Industrial Employment Structure 1997, %



Of 435 industrial sector companies 213 are in light industry, 59 in radio electronics, 43 in building materials, 31 in electrical engineering, 30 in machine-tool construction, 21 in chemicals and biotechnology, 17 in mining metallurgy, 16 in timber industry, and 5 in jewelry.

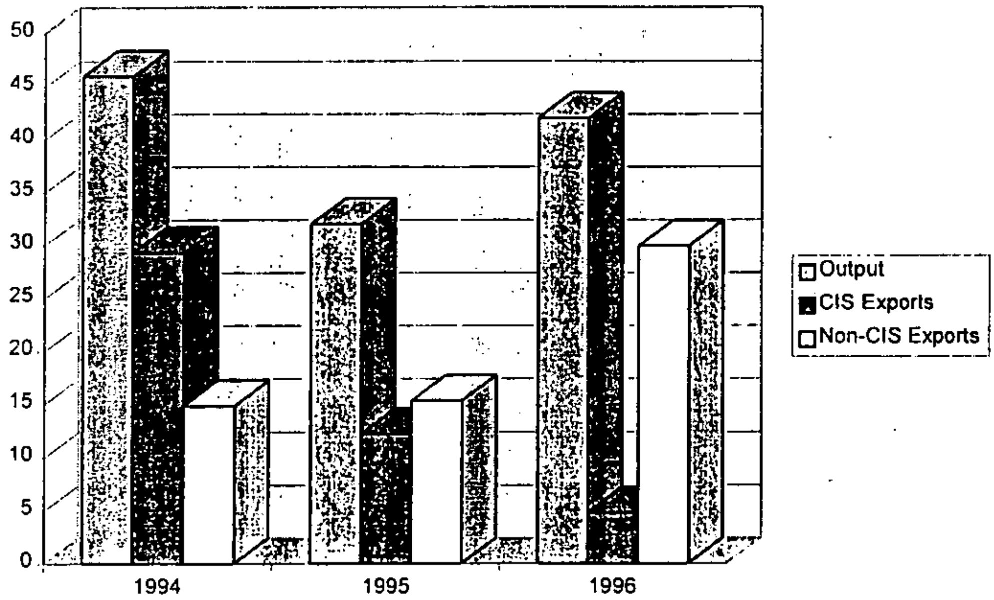
Company Structure 1997, %



Jewelry

Since the independence of Armenia, jewelry has been accounting for the bulk of the country's exports as the blockade of land communications has not been affecting the industry. Raw materials for the diamond processing factories are imported from Russia, EC countries, and South Africa. It is noteworthy that while the overall exporting of jewelry products during the three years fell 21% the exports to non-CIS countries (particularly, Belgium) were doubled.

Output and Exports, USD mln



In January-July 1997, the production amounted to USD 18.3 million. Exports made 15.4 mln, or 15.4% of the produce, of which 15.35 mln (99.7% of the total) to non-CIS countries.

Jewelry is represented by 5 enterprises of which just one company, *Shoghakn*, accounts for 78.5% of the output, and 88% of the exports. Meanwhile, it is another company, *Sapfir* that best advanced during the first half of 1997 enlarging its output as much as 2.3 times the level reached for the same period last year.

Main Companies' Indicators - 1997

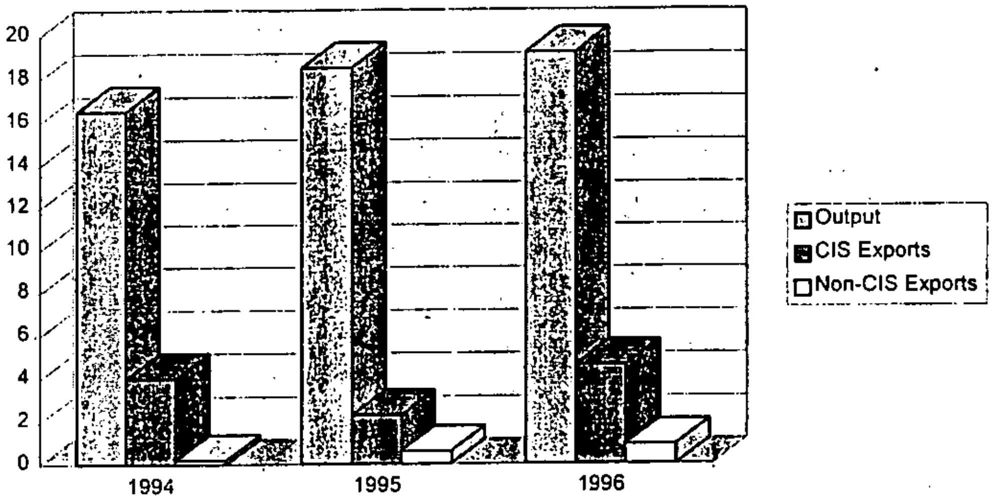
Name	Emplo-yees	Output, $thous.	Exports, $ thous.		Export % to Output
			CIS	Other	
Shoghakn	719	14396	-	13515	93.9
Jewelry Plant	1150	1246	-	-	-
Sapfir	2049	2697	68	1849	71.1

Chemicals and Biotechnology

Chemical industry has long traditions and is well advanced in Armenia. The chemical enterprises are interlinked, and themselves consume 40-45% of the local chemical produce. The main items produced are as follows: synthetic rubber, melamine, chemical fibers, formic acid, acetic acid, acetylene, synthetic crystal, caustic soda, paint, and varnish as well as organic chemical reagents of 800 types. Besides, there are also plants producing vitamins and medicines.

In 1994-1996, the branch output advanced by over 16%, one of the best indicators among the industrial sector. At the same time, the exports raised 28.6% with a quite more significant (4.5 times!) increase in non-CIS exports.

Output and Exports, USD mln



In January-June 1997, the industry produced output of USD 6.16 million. Exports made 0.8 mln (13% of the produce) of which to non-CIS countries - 0.073 mln (9.1% of the total).

Among the 21 enterprises operating in this industry, *Nairit* itself accounts for 67% of the branch's output having enlarged its production by 35.6% during the first half this year compared to the same period of 1996. However, *Polyvinilacetate* had the best indicators: the company's production increased 8.8 times.

Main Companies' Indicators - 1997

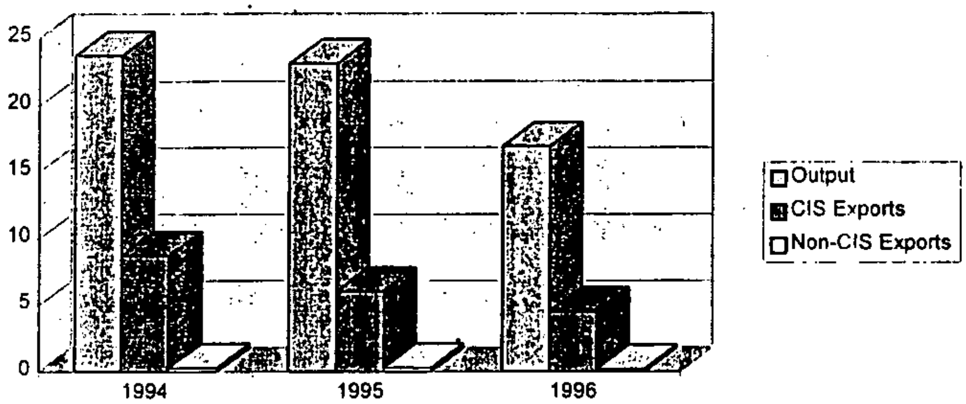
Name	Employees	Output, $thous.	Exports, $ thous.		Export % to Output
			CIS	Other	
Nairit	3 513	4129	-	-	-
Motor-tire Plant	1448	36	36	-	100.0
Chemic. Fiber Plant	1242	117	44	73	100.0
Chemic. Drugs Plant	280	462	327	-	70.8
Polyvinylacetate	864	859	-	-	-

Electrical Engineering

Among the FSU republics, Armenia took the third position in producing electrical items. The availability of rich non-ferrous metal resources, especially as to copper, serves a reliable basis for this field of manufacture. Presently the branch's enterprises produce such items as cable, metal wires, power transformers, movable power stations, direct and indirect current generators, electric welding instruments, lifts, lamps and various chandeliers as well as current controllers and distributors.

Although in 1994-1996 the economic indicators declined, a considerable growth has been achieved in the production of some items. For instance, in 1996 a particular high increase was recorded in producing heat-insulation panels (3.1 times), relays (2.4 times), centrifugal pumps (1.7 times), and big electrical engines (1.2 times).

Output and Exports, USD mln



In January-June 1997, the production level achieved a figure of USD 2.97 million. Exports made 1.03 mln (34.8% of the output) including that to non-CIS countries - 0.124 mln (12% of the exports).

Presently there are 31 electrical engineering enterprises in Armenia with three of them, namely Electrical machines plant, *Luis*, and *Geghama*, accounting for 74% of the branch's output. As to the exports, *Geghama* company in Gavar provides about 52% of the CIS exports, and 69% of that to the non-CIS countries.

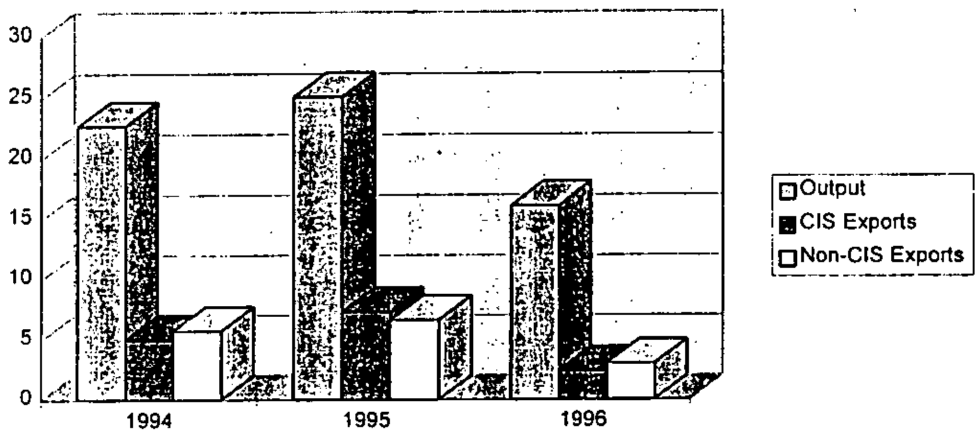
Main Companies' Indicators - 1997

Name	Emplo-yees	Output, $thous.	Exports, $ thous.		Export % to Output
			CIS	Other	
El.Machines Plant	7028	1719	-	-	-
Luis	5366	199	27	-	13.6
Geghama	291	556	471	85	100.0
Cable Factory	2034	109	-	-	-
Mars	409	140	-	-	-

Radio Electronics

This branch of industry is proved to be one with good prospects for the future, but since 1991 it has been undergoing especially hard transitional difficulties due to the specific nature of radio electronic items. Broadly speaking, Armenia possesses unique advantages for such kind of production both as to high-skilled labor force and material basis. However, essential start-up money is needed to bring the available potential into action. The luck of necessary investment is the reason why the level of output and sale fell so considerably in 1996 as compared to the previous years.

Output and Exports, USD mln



Объем продукции за январь-июнь 1997г составил USD 3.69 млн, экспорт - 0.43 млн или 11.7% выпуска, в том числе в страны вне СНГ - 0.113 млн (26.2% экспорта).

Radio electronics in Armenia includes 59 enterprises, of which 6 companies listed in the table below account for 70% of the output. Among these leaders, *Hrazdanmach* and *Orbita* themselves provide 54% of radio electronic products.

Main Companies' Indicators - 1997

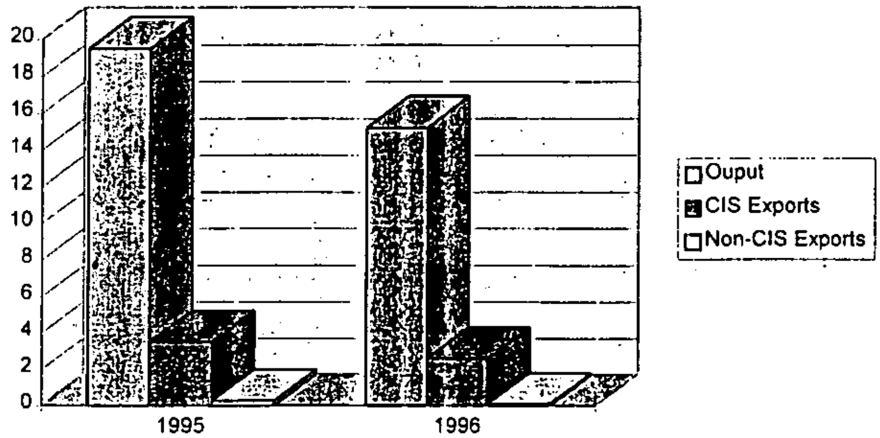
Name	Emplo-yees	Output, $ thous.	Exports, $ thous.		Exports, % to Output
			CIS	Other	
Hrazdanmach	4006	930	-	-	-
Orbita	600	1067	-	-	-
Electron-Yerevan	1981	202	-	-	-
Art. Clock Factory	452	154	-	-	-
Relle	285	167	49	-	29.3
Transistor	892	68	5	-	3.8

Currently negotiations are being held with US, Belgian, and French companies to set up joint productions of videos, computers, and small telephone stations.

Light Industry

Armenia used to be exporting 70% of the light industry products. The collapse of the USSR, and the blockade of communications result in losing the traditional supply sources and sale markets. Nowadays the enterprises operate to 5-30% of their productive capacity, and the output and sale characteristics have been degraded.

Output and Exports, USD mln



In the first half of 1997, the industry's output amounted to USD 7.85 million. Exports made 0.58 mln (7.4% of the output) including 0.07 mln (or 12.1%) of sales in non-CIS markets.

Presently there are 213 light industry enterprises. Five of them presented below account for about 20% of the branch's output. Amid these companies, *Ijevan-carpet* is the one with totally outward-oriented production, and itself provides 19 % of the exports by this industry.

Main Companies' Indicators - 1996

Name	Emplo-yees	Output, $ thous.	Exports, $ thous. CIS	Exports, $ thous. Other	Export % to Output
Garun clothing JSC	427	1085	7	71	7.2
Giumri Weaving Mill	571	802	-	-	-
Ijevan-carpet JSC	315	524	524	-	100.0
Hayas knitted goods JSC	387	356	-	-	-
Araks boots and shoes JSC	353	158	60	-	38.0

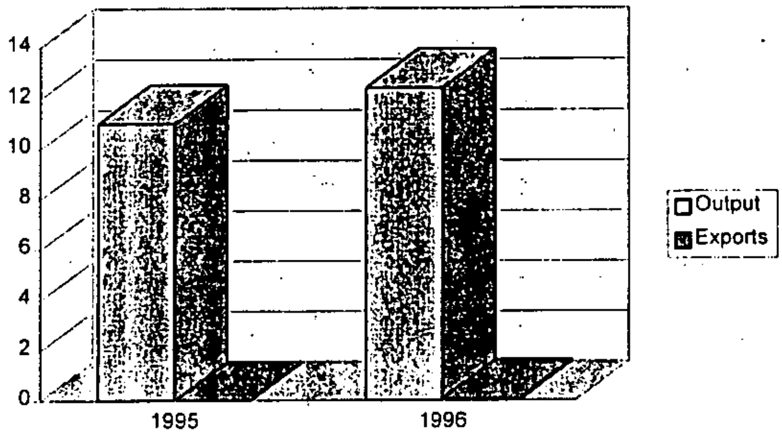
Notwithstanding the difficulties of transitional period, the branch shows promising signs of revival. In 1996, the physical index of production considerably improved in some leading light industry companies particularly in the Giumri Weaving Mill - 36%, and in the *Garoun* clothing JSC - 29%.. The light industry of Armenia is considered to have a large export potential since the bulk of enterprises possess rather modern equipment, and have low-paid (USD 15-30 per month) and high-skilled employees.

Building Materials

Armenia is a country abounding in stone resources. There are 33 mines of volcanic tufa with the estimated stock of 3 billion cubic meters, as well as rich mines of basalt, marble, etc. The local limestone resources make it available to produce yearly 3 million tones of cement and 1.4 million cubic meters of reinforced concrete.

The production of building materials in 1996 was about 13% as larger as in the previous year. Given both the absolute and comparative advantages of Armenia, a sharp advancement in this branch of industry is predicted and anticipated for the years to come.

Output and Exports, USD mln



In January-June 1997, the output totaled USD 4.39 million, and exports made 0.029 mln (0.6% of the produce).

Among the 43 enterprises engaged in producing building materials, 5 enterprises listed below account for about 88% of the total branch output, at that the Ararat Cement Factory alone provides the bulk of it.

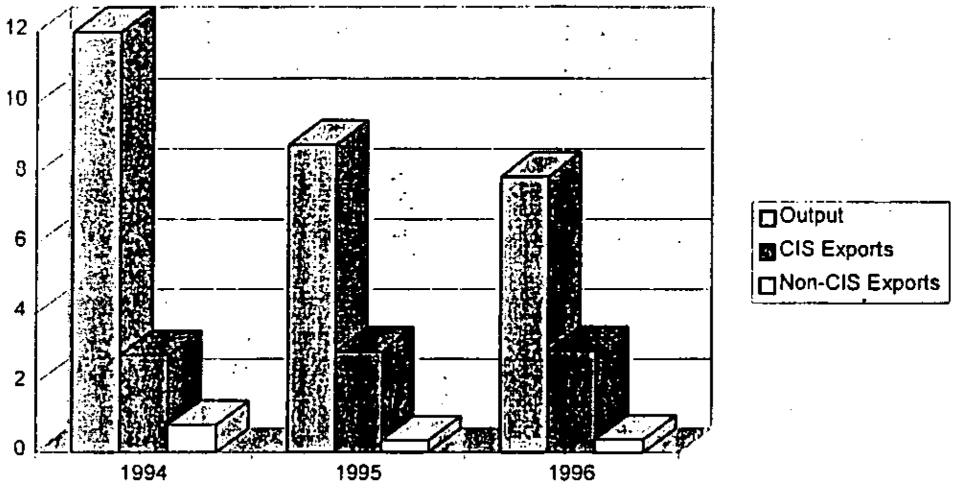
Main Companies' Indicators - 1996

Name	Emplo-yees	Output, $ thous.
Ararat Cement Factory	1818	6797
Hrazdan Cement Factory	626	2582
Asbocement (asbestos & cement)	158	1032
Armavir-appaki (glass)	268	270
Artik-touf (tufa)	325	205

Machine-tool Construction

The production of machine-tools dropped 34% during 1994-1996. However, the exports to the CIS countries increased 4.3%.

Output and Exports, USD mln



During the recent years, a considerable success has been made in producing high-precision and numerical control items. The output of numerical control machine-tools and special devices in 1996 were respectively 4.7 and 1.5 times as higher as in the previous year.

For the first six months of 1997, the industry produced an output of USD 2.16 million. Exports made 0.775 mln, or 36% of the output, including 0.128 mln of sales (16.5%) in non-CIS markets.

Machine tool construction is represented by 30 companies producing metal-cutting, milling, grinding, boring, drilling and other machine tools. 5 companies presented in the table below account for 61.6% of the output, and hold leading exporters position. Of these companies, Pump-making Plant in Yerevan, and Machine-tool Plant in Charentsavan are especially export-oriented ones.

Main Companies' Indicators - 1997

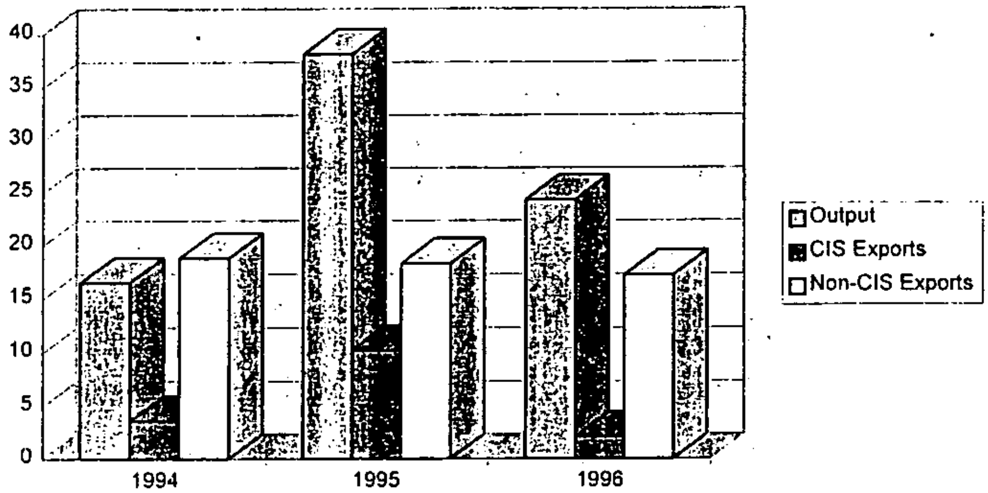
Name	Emplo-yees	Output, $ thous.	xports, $ thous		Export % to Output
			CIS	Other	
Avtogenmash	1352	573	42	-	7.3
Charentsavan Machine-tool Plant	1249	354	198	-	55.9
Eraz	949	104	5	-	4.8
Aemavto	559	87	-	-	-
Pump-making Plant	538	214	197	-	92.1

Mining Metallurgy

The availability of natural resources (molybdenum, copper, gold, silver, etc.) makes a solid basis for developing non-ferrous metallurgy. In Kappan, Kajaran and Agarak there are copper and molybdenum mining and processing combines. The integrated metallurgy plant in Alaverdi produces compressed copper, sulfuric acid, copper vitriol, brass and bronze powder. A factory in Ararat processes gold-containing ores extracted from the local mine. For the coming years, it is planned to set up copper-melting plants in Alaverdi and Kappan.

During the three years, the output of mining metallurgy increased over 47% while the exports decreased 14%. However, the production of rolled copper in 1996 was 3 times as larger as in the previous year.

Output and Exports, USD million



As of January-June 1997, the output amounted to USD 9 million, and the exports totaled 4.81 mln (53.4% of the output) including that to non-CIS countries of 4.80 mln (99.8% of the whole).

Mining metallurgy in Armenia includes 17 enterprises, and among them 5 companies as seen from the chart below account for about 70% of the output, and 2 companies provide 20% of the exports. These figures for *Kappan* alone make respectively 10.5% and 18.8%.

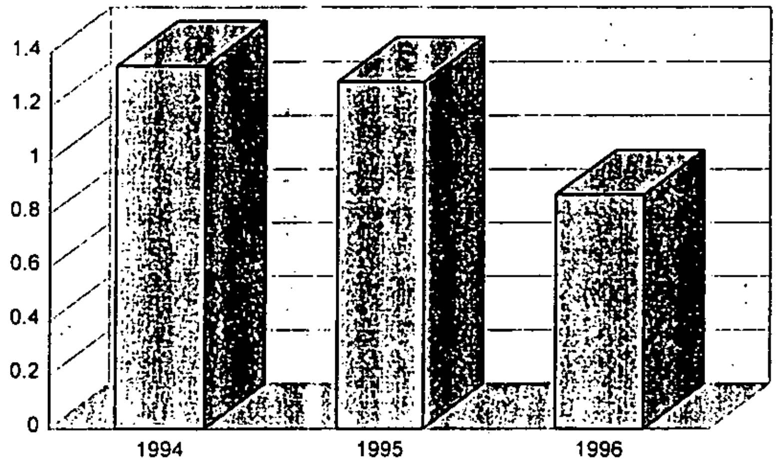
Main Companies' Indicators - 1997

Name	Emplo-yees	Output, $ thous.	Exports, $ thous.		Export % to Output
			CIS	Other	
Zangezur (copper and molybdenum	1928	4420	-	-	-
Hayosky (gold)	1353	135	-	-	-
Agarak (copper and molybdenum)	799	150	13	43	37.3
Kappan (ore concentrate)	1056	940	-	904	96.2
Kanaz (aluminum)	897	590	-	-	-

Timber Industry

This branch of industry has still been suffering the lost of traditional raw material sources as well as sale markets that were located within the former USSR. Presently serious efforts are made to reorient the production towards alternative suppliers and consumers. However; so far no any sustainable success has been achieved, and the level of output continues declining year by year. Ouput of USD 0.31 million was produced by the industry in January-June 1997.

Output, USD mln



Timber industry is represented by 16 enterprises. of which 5 account for 68% of the branch's output. *Yerevan-kahouik* and *Giumri* furniture factories y are the largest ones with respectively $128,000 and $38,000 worth half-yearly production.

Main Companies' Indicators - 1997

Name	Emplo-yees	Output, $ thous.
Yerevan-kahouik (furniture)	267	128
Haytoughtar (paper)	129	22
Giumri (furniture)	192	38
Ijevan-kahouik (furniture)	104	14
Papuk-kahouik (furniture)	271	9

LABOR DIMENSION - COST, AVAILABILITY AND PRODUCTIVITY

In the Republic of Armenia, labor cost, availability, productivity and skills are formidable strengths - the basis of the country's case for attracting new inward investment.

Cost

Wage levels are extremely competitive. At $27, the average monthly wages in the Republic of Armenia are much lower than in Russia (6 times) and most of the CIS. countries. The same is true with employer insurance costs.

Availability

Armenia-based industrial firms and companies currently employ around 375,000 people. Economy rationalization has created pools of highly skilled personnel, allowing even major recruitment projects for new inward investors to be completed effectively.

Siemens, for example, was able to tap into a pool of local, highly skilled and experienced employees in Yerevan. The company was able to very rapidly recruit all the working personnel needed. The company also successfully hired an Armenian management team.

Productivity

Excellent productivity has been experienced by both new incoming companies and established local manufacturers. Foreign partners have typically brought new design and manufacturing technology, to which local managerial, technical and production staff have adapted swiftly. Foreign companies invested in Armenian industrial business have found that productivity performance has reached international benchmark standards within a short time of start-up, while they have been able to continue to enjoy the impressive cost advantages of an Armenian location.

EDUCATION AND TRAINING

Some common threads run through the experience of foreign investors in the industrial sector relating to the crucial area education and training:

- High level of general education and long tradition of carrying out industrial activities underpins the high quality of the labor force and its amenability to training.
- Skill pool in most areas of industrial business is very large and of extremely high quality. For generations Armenian education and experience have produced high-class skills in manufacturing industries.
- Around 5% of the Armenian population is now computer literate largely on account of the education system graduating some 1,500 computer-literate people every year.
- Armenia has always been internationally strong in industrial sector and the Government is committed to sustaining this by protecting public funding in this area.
- The long-tradition and well-organized Armenian education system readily facilitates vocational education and training.

There are three general levels of education and training:

- basic workplace training and education;
- vocational education and training;
- advanced education.

The major Armenian industry-oriented education center is the Yerevan State Engineering University with 5,854 students. The University has well-established linkages with some other universities in Western Europe and the USA.

INFRASTRUCTURE

TRANSPORT, TELECOMMUNICATIONS, CUSTOMS REGIME AND TAX HOLIDAY

Transport

The Republic of Armenia is a crossroads between Europe and Asia, neighboring with Turkey, Iran, Georgia and Azerbaijan.

Yerevan's airport provides international business travelers with regular flights to and from major European capitals as well as the United States.

Armenia has a convenient railway system. Road transport links have always been good and are to be further improved thanks to the recent reconstruction projects implemented.

Telecommunications

Due to the rapid increase in commercial activity, the telecommunication system within the Republic of Armenia is undergoing a process of quick expansion. The Armenian-USA joint venture ArmenTel with the participation of Siemens from Germany has been making considerable efforts in entirely modernizing the local communication capacities. The three-year investment program totals USD 70 million.

Customs regime

The Republic of Armenia's customs legislation is very liberal and transparent. The customs duties have been brought into alignment the international customs framework, eliminating non-tariff trade barriers. In Armenia, the average level of customs duties is equal to 1.2% against the average CIS. rate of 6%.

Inward Processing Relief is available in respect of materials, components, subassemblies, spare parts and other items imported for processing, regardless of whether or not the final production is exported.

Tax holiday

According to the new Profit Tax Law, enterprises with foreign investment of AMD 500 million (USD 1 mln) and above are not subject to profit tax in the first two years of establishment. Furthermore, from the 3rd to 10th year such companies are subject to the deduction of tax payable in 50% .

THE NEXT MOVE

International investment by famous industrial companies to date substantiates the Republic of Armenia's credentials as a cost-effective location for industrial and related goods production.

That such companies make decisions based on in-depth investment appraisals underlines how attractive an Armenian location can be to today's globally competitive companies. With its pool of highly motivated and appropriately skilled labor, cost efficiencies, political stability, impressive macroeconomic indicators and unique location just between Europe and Asia, the Republic of Armenia has a great deal to offer.

If you would like to find out more about the benefits of investing in Armenia, contact EDIPA now:

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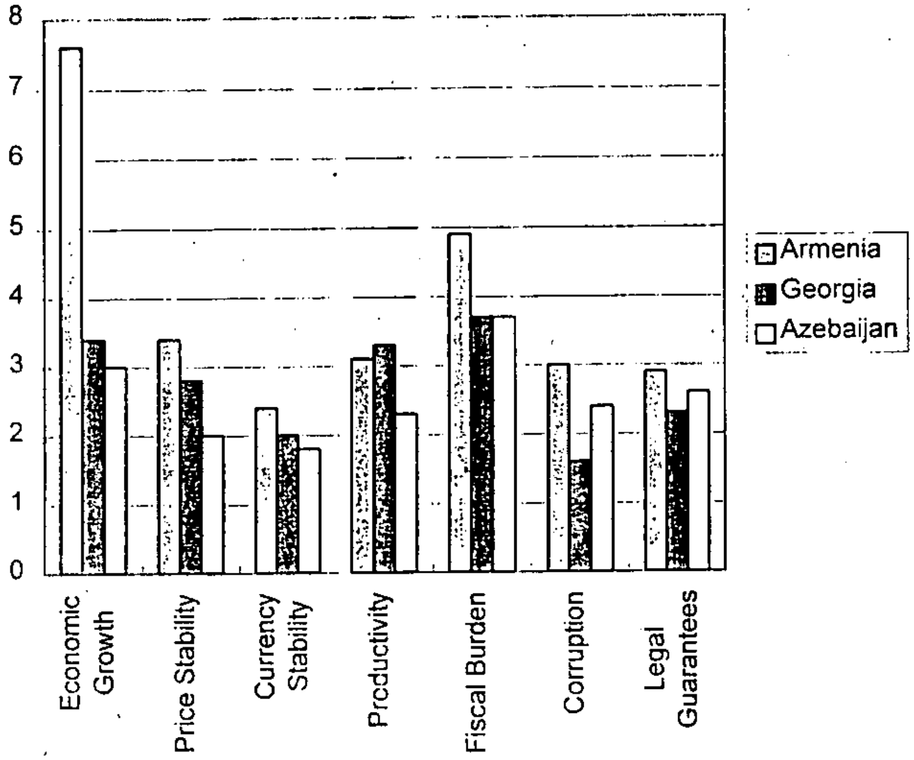
1996 Investment Rating



* Rating out of 10 by leading Western investment analysts -
Central European Economic Review - February 1996

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