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LAIMS TRIBUNAL

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R/12

CASE NO. 24
CHAMBER ONE
AWARD NO. 314-24-1

STARRETT HOUSING CORPORATION,
STARRETT SYSTEMS, INC.,
STARRETT HOUSING INTERNATIONAL, INC.,
Claimants,

and

THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF IRAN,
BANK MARKAZI IRAN,
BANK OMRAN,
BANK MELLAT,
Respondents.

FINAL AWARD

Appearances:

For the Claimants:

Mr. Henry Benach,
Chairman, Starrett
Housing Corporation,
Mr. Richard Bassuk,
President,
Starrett Housing
Corporation,
Mr. Lewis Weinfeld,
Chief Financial Officer,
Starrett Housing Corpo-
ration,
Mr. Stephen R. Kaye,
Attorney,

Mr. Jean-Flavien Lalive,
Counsel,
Mr. Jürgen Dohm,
Counsel,
Mr. Hamid Sabi,
Counsel,
Mr. Robert Dillof,
Counsel,
Mr. Marc J. Goldstein,
Counsel,
Mr. Edward T. Schorr,
Counsel.

For the Respondents:

Mr. Mohammad K. Eshragh,
Agent of the Islamic Republic of Iran,
Mr. Khalil Khalilian,
Advisor to the Agent,
Mr. Nasser Ali Mansourian,
Advisor to the Agent,
Mr. Mojtaba Kazazi,
Representative of the Respondents,
Mr. Mehdi Moinfar,
Representative of the Ministry of Housing,
Mr. Ahmad Hejazi,
Financial Advisor to the Respondents,
Mr. Akbar Ansari,
Financial Advisor to the Respondents,
Mr. Reza Motamedi,
Legal Advisor to the Respondents,
Mr. Mohsen Ghaffari,
Technical Advisor to the Respondents,
Mr. Mohammad Ali Movahed,
Representative of Bank Mellat,
Mrs. Gilyard Kasraee,
Assistant to the Representative of Bank Mellat,
Mr. Mohammad Ekhterai Sanai,
Representative of Bank Markazi Iran.

Also present:

Mr. John R. Crook, Agent of the United States of America.

TABLE OF CONTENTS

A. THE EXPERT'S REPORT AND THE PARTIES' COMMENTS

I. The Interlocutory Award in this Case

1. In the present Case, an Interlocutory Award was rendered[1] for the purpose of deciding certain jurisdictional questions and whether there had been a taking of the Claimants' property by the Government of the Islamic Republic of Iran ("the Government"). The Interlocutory Award describes the factual background of this Case as follows:

> "Starrett Housing Corporation is the parent company of a group of subsidiary corporations engaged in construction and development projects. Starrett Housing Corporation ('Starrett Housing') and two of its . . . wholly-owned subsidiaries, Starrett Systems, Inc., and Starrett Housing International, Inc., have asserted claims on their own behalf and on behalf of foreign corporations controlled by them against the Respondents for damages alleged to have been suffered due to events which occurred in the course of the development of a large housing project in Iran. (Starrett Housing and its subsidiaries are hereafter referred to collectively as 'Starrett').
>
> The Claimants' involvement in Iran began in 1974, when Starrett Housing agreed to participate in a program to construct a residential community on then-unimproved land adjacent to northwest of Tehran. The area, known as Farahzad, consisted of about 1500 hectares of land, a portion of which would be developed by Starrett Housing, and other portions by other firms.
>
> In a series of agreements between Starrett and Bank Omran, an Iranian development bank, entered into between 2 November 1974 and 18 October 1975, Starrett undertook to purchase parcels of land at Farahzad, to develop and construct on these parcels and to market condominium apartments, i.e., individual apartment units, the title to which would be conveyed to separate purchasers.

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[1] Interlocutory Award No. ITL 32-24-1 of 19 December (Footnote Continued)

Starrett undertook to construct a total of 6000 apartment units in three phases of which only Phase I is at issue in this case. This Phase comprised 1600 such apartment units, grouped in eight, 26-storey buildings. This apartment complex -- named 'Zomorod' by the Claimants -- also included swimming pools, tennis courts, and other amenities.

The first of the agreements regarding this project was entered into on 2 November 1974 by Starrett Housing and Bank Omran. To this agreement was annexed the text of another more detailed agreement (the 'Basic Project Agreement'). The 2 November agreement obligated Starrett Housing to create a foreign subsidiary or affiliate to execute the Basic Project Agreement, the performance of which would be guaranteed by Starrett Housing.

Accordingly, Starrett Housing created a Swiss subsidiary, Starrett, S.A., which executed the Basic Project Agreement on 18 December 1974.

In view of certain requirements for foreign nationals to secure permits to own land and after consultations with officials of Bank Omran, Starrett S.A. on 18 October 1975 assigned the Basic Project Agreement to an Iranian subsidiary, Shah Goli Apartment Company ('Shah Goli'). That corporation then executed a supplementary agreement with Bank Omran. Pursuant to this supplementary agreement, Shah Goli and six other Iranian companies assumed all the rights and obligations of Starrett, S.A. under the Basic Project Agreement, with certain amendments. However, as far as these seven companies were concerned only Shah Goli seems to have been involved in the Zomorod Project.[2] The supplementary agreement was also accompanied by a guarantee of performance executed by Starrett Housing on 16 October 1975 according to which Starrett Housing, Shah Goli and the six other Iranian companies jointly and severally guaranteed to Bank Omran their obligations under the Basic Project Agreement.

(Footnote Continued)
1983 ("the Interlocutory Award").

2 The Tribunal notes that the six other Iranian companies, which together with Shah Goli entered into the supplementary agreement with Bank Omran, have not been taken

(Footnote Continued)

> The Basic Project Agreement defines the 'Project' as referring to the entire operations, the plans, the construction and the sale of apartments, or other types of construction subject to the approval of Bank Omran, to be carried out by Starrett on the two parcels of land at Farahzad. The term 'Project' is hereinafter used in the same sense.
>
> Starrett Housing owned 79.7% of Shah Goli through Starrett Systems, Inc., and Starrett Housing International, Inc., and through the latter's wholly-owned subsidiary, Starrett Housing GmbH, a company incorporated in the Federal Republic of Germany. Of the balance 20% was owned by Iranian nationals and 0.3% by others.
>
> Starrett Housing also organized another Iranian corporation, Starrett Construction Company Iran ('Starrett Construction'), which was formed to perform certain management functions relating to the Project. Starrett Housing owned [through its wholly-owned subsidiary N + B Unternehmensberatung GmbH, a company incorporated in the Federal Republic of Germany] 100% of Starrett Construction. Under the terms of a separate agreement Starrett Construction received 11½% of the cash proceeds from the sales of the apartments as a management fee. Starrett Housing intended that a part of its profit on the Project would be received through Starrett Construction's management fee."[3]

2. Based on the record before it, the Tribunal concluded in the Interlocutory Award that:

> "It has therefore been proved in the case that at least by the end of January 1980 the Government of Iran had interfered with the Claimants' property rights in the Project to an extent that rendered these rights so useless that they must be deemed to have been taken."[4]

(Footnote Continued)
into consideration by the Expert in the valuation proceedings and are irrelevant to the present Case.

[3] Interlocutory Award, pp. 3-5.

[4] Interlocutory Award, p. 53.

3. Deciding that the date of the taking was to be considered 31 January 1980, the Tribunal held that the Claimants' property rights:

> "must be deemed to comprise the physical property as well as the right to manage the Project and to complete the construction in accordance with the Basic Project Agreement and related agreements, and to deliver the apartments and collect the proceeds of the sales as provided in the Apartment Purchase Agreements."[5]

As to the valuation of the property rights taken, the Tribunal found on the evidence before it that this involved complex accounting matters which necessitated advice from an accounting expert. The Tribunal therefore appointed Mr. Lennart Svensson of Revisionsfirman Lennart Svensson & Co., of Malmö, Sweden, as an accounting expert in this Case ("the Expert").

4. The Tribunal set forth the following terms of reference for the Expert:

> "1. The expert shall give his opinion on the value of Shah Goli as of 31 January 1980, including the value of the Project in Shah Goli's hands, considering as he deems appropriate the discounted cash flow method of valuation.
>
> The expert shall mention in his report as he deems appropriate the items, if any, referred to in the counter-claims which his investigation shows are liabilities of Shah Goli or the Project.
>
> Any substantial items relating to the claims or counter-claims which require further substantiation or determination by the Tribunal of legal issues shall be noted in the report by footnote or other suitable means.

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5 Interlocutory Award, p. 55.

The expert shall examine the counter-claims with a view to including in his valuation such liabilities mentioned therein which are related to Shah Goli or the Project, recognizing that the Tribunal has not yet made any legal determinations concerning the counter-claims.

2. The expert shall also give his opinion as of 31 January 1980 on the net profit of the Project, if any, Starrett Housing would reasonably have received through the management fees pa[i]d to Starrett Construction.

3. The expert shall give his opinion as to how the amount of compensation, if any, to which the Claimants are entitled shall be reduced to accurately reflect the 20.3% interest in Shah Goli not owned by the Claimants.

4. The expert shall also give his opinion as of 31 January 1980 on the proper method for taking into account loans made to Shah Goli for the purposes of the Project, as defined in the Basic Project Agreement. In this connection, his report shall include:

a) The amount of principal and accrued interest of each such loan, identifying as to each the lender and the borrower;

b) The extent to which the proceeds of each such loan were expended for the purposes of the Project.

5. The expert shall investigate to which corporation the heavy duty construction equipment, which is referred to in Claimants' Exhibit 34, belonged, and to make an estimation as to the value of that equipment as of 31 January 1980."[6]

5. The Tribunal further stated that:

"The expert shall be entitled to hear any person with knowledge of the Project, if he deems it appropriate and if the Parties have been duly invited to attend such meeting.

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6 Interlocutory Award, pp. 56-57.

> The expert shall also be entitled to obtain from any Party all documents which he deems necessary for his investigation. Each Party shall without delay give the other Party a copy of any documents which it gives to the expert; if a Party arranges for the expert to inspect documents without giving him a copy, the other Party shall be invited to inspect such documents.
>
> . . .
>
> In the event the expert in the course of his investigation forms the opinion that modification of the foregoing terms of reference would be necessary to permit a proper valuation, or if any other difficulty arises, the expert shall be allowed to refer to the Tribunal for modification, clarification or resolution."[7]

II. The Valuation Proceedings

6. The Expert described the overall procedure that he followed during the valuation as follows:

> "Where applicable, I have attempted to follow such valuation procedure as is normally applied in company valuations in conjunction with the voluntary buying and selling of companies. This has entailed that the Parties have been given an opportunity to put forward their opinions within all crucial sectors of the valuation.
>
> According to my opinion at any stage of the valuation process both Parties have been given a fair opportunity of presenting their views on the value of Shah Goli and its Project. Every point of view from a Party, including suggestions for amendments or supplementations has been given careful consideration and brought about those corrections in my Report which I found to be motivated on the basis of relevant and factual arguments. In those cases where the opinions of the Parties deviate from mine, I have sought to account for the Parties' opinions and motivations therefore as correctly as possible.
>
> Both Parties have access to qualified advisors of different disciplines and fields of expertise. I

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[7] Interlocutory Award, pp. 57-58.

> have, therefore, examined with great interest the Parties' argumentation and substantiation in those cases where my standpoints have been criticized or challenged. I have also attempted to clarify the reasons for the identified differences of opinion.
>
> I have applied the principle that one Party should always have the opportunity to respond to information received from the other Party, before I evaluate its importance to the valuation."

In the course of the valuation proceedings, the Expert afforded the Parties numerous opportunities to make submissions. The Parties responded and submitted vast amounts of information and comments to the Expert. The Expert also conducted hearings with the Parties at Malmö in July 1984 and August 1985, and in The Hague in September 1984. Members of his staff also made two visits to Shah Goli in Tehran, and he and staff members made one visit to Starrett Housing Corporation in New York. During the proceedings, the Expert also obtained opinions from other experts in specialized fields regarding various matters, and he attached those opinions to his Report.

7. The Expert, however, encountered certain problems in the course of the valuation proceedings. These problems related mainly to failures of the Parties to submit documents within the time limit prescribed by the Expert, delayed submission to one Party of information requested from the other Party, and information withheld by either Party. Placing particular importance on the problem of withheld information, the Expert stated:

> "I have been prevented from direct and immediate access to certain original documents because the Parties have first examined and evaluated their importance to the valuation. There are reasons to believe that the Parties have released only a selection of the documents concerned. Thus, certain key information may have been withheld from me. Undoubtedly, this entails that, in my valuation, I have been less well-informed than a potential investor in Shah Goli would have been in January 1980.

> Against this background, I have found that every attempt on my part to substantially base my valuation on such incomplete, intractable and distorted documentation would certainly have led me to a false picture of how conditions really were on the day of valuation. Consequently, I have instead applied the principle that I should, to the greatest extent possible, base my valuation on documents and such information which the Parties have not had any possibility to edit or doctor to suit their own purpose."

8. In this context, the Expert did not consider in his valuation certain materials submitted by the Respondents in October 1985, relating principally to remaining cost calculations, because, inter alia, they were filed too late, were impossible to verify reliably, and were not in accordance with the Expert's valuation premises.

9. After the Expert had submitted his Draft Valuation Report to the Parties, that is before filing his Final Report with the Tribunal, the Respondents requested the Tribunal (on 31 January 1986) to instruct the Expert to "take into account" these Materials in the valuation. In an Order filed on 10 February 1986, the Tribunal decided to defer a decision on this issue until after it had received the Expert's Final Report. After the Final Report was submitted to the Tribunal, the Respondents again, as part of their comments on that Report, requested the Tribunal to take those Materials into account, while the Claimants requested the Tribunal to disregard them. On 22 December 1986, the Tribunal filed an Order determining, inter alia:

> "Considering the expert's Final Report and the comments submitted by both Parties and other documents before it, the Tribunal decides that it will not consider the Materials. This Order does not preclude the Parties from presenting arguments that the expert's choice of valuation premises is incorrect. In the event that the Tribunal determines not to accept the expert's valuation premises, it may determine that various additional data should be considered, which might include some or all of the Materials."

10. On 26 May 1986, the Expert submitted to the Tribunal his Report on the value of Shah Goli as of 31 January 1980. The Claimants filed Comments on the Expert's Report and on other remaining issues on 7 July 1986. The Respondents filed Comments on the Expert's Report on 15 December 1986, as well as a Memorial on Sale, Exhibits and Appendices to the Comments.[8] One of the Appendices is a report and comments on the Expert's Report by Coopers & Lybrand, a firm of chartered accountants. The Respondents pointed out that their Comments "have to be considered in conjunction with [their] previous comments and submissions to the Expert" which have been filed with the Tribunal.

III. The Hearing Pursuant to Article 27, Paragraph 4, of the Tribunal Rules

11. At the request of the Respondents, a Hearing for the purposes set forth in Article 27, paragraph 4, of the Tribunal Rules[9] was held in this Case on 19-24 January 1987 ("the Hearing"). In the course of this Hearing, the Parties and the Tribunal put questions to the Expert. The Parties also commented on the Expert's Report. The Respondents presented as expert witnesses Mr. Donald R. Chilvers and Mr. Chris Lemar from Coopers & Lybrand and Mr. Fariborz

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[8] In this context, the Respondents once again "request the Tribunal to take account of the Documentation submitted by Respondents in October 1985."

[9] Article 27, paragraph 4, of the Tribunal Rules provides:

> "At the request of either party the expert, after delivery of the report, may be heard at a hearing where the parties shall have the opportunity to be present and to interrogate the expert. At this hearing either party may present expert witnesses in order to testify on the points at issue."

Raiisdana, a specialist in applied econometrics. The Claimants questioned the independence of Coopers & Lybrand in this proceeding and noted that Mr. Chilvers was the head of Coopers & Lybrand's "legal support unit." In answer to this, Mr. Chilvers stated that the work of that unit of Coopers & Lybrand involved putting a realistic figure on claims, in order to assist in resolving such claims, and that this should in no way imply that they sold their independence. The Parties and the Tribunal put questions to the Respondents' expert witnesses. The Claimants objected, inter alia, to the admissibility of certain documents filed by the Respondents with their Comments on the Expert's Final Report, arguing that such documents had been submitted too late, and they requested that these documents be excluded from consideration. The Respondents insisted that they be allowed to refer to all documents they had submitted, so that they could substantiate their objections to the Expert's Final Report. On 22 January 1987, the Tribunal rendered the following unanimous decision on these documents:

> "The Tribunal joins with the merits its decision on the question of whether to admit in evidence the documents described in the submission presented by the Claimants at the close of the session yesterday, headed 'Claimants' Resubmitted List of Respondents' Evidentiary Documents Filed With the Tribunal on December 15, 1986 and Not Previously Submitted to the Tribunal or the Expert'. The Respondents are free to refer to such documents during the Hearing subject to the understanding that the Tribunal may later decide that the documents will not be admitted in evidence. The Claimants are free to comment on, or ask questions concerning the documents, reserving nevertheless their objection to the admission of such documents in evidence. In the event that the Tribunal later decides to admit some or all of the documents, it will consider whether, in the circumstances, the Claimants should be permitted to file a written rebuttal."

IV. The Relief Sought by the Parties

12. The Claimants "urge the Tribunal to accept and confirm the Expert's conclusions in their entirety." The Expert assessed the fair market value of the Project as of 31 January 1980 at Rials 4,754 million.[10] After making the adjustments to the Project's fair market value described below, the Expert found that the Claimants' share of Shah Goli and Starrett Construction amounted to Rials 432 million. In addition, the Expert found that Shah Goli had received loans from the Claimants totalling $34,256,044 and that Starrett Construction had received a loan from Starrett Housing Corporation in the amount of $684,297. Thus, as compensation for the expropriation of their property rights in the Project, the Claimants seek (a) $6,119,000[11] as their net share of the Project, (b) $34,256,044 for loans from the Claimants to Shah Goli, and (c) $684,297 for the loan from Starrett Housing Corporation to Starrett Construction. The total amount sought by the Claimants is thus $41,059,341.

13. The Claimants sought interest on this total amount on a compound basis at the average annual interest rate charged by banks to the Claimants from 31 January 1980 to the date of payment of the Award. The Claimants argued that such an Award of compound interest is in accordance with international law and the Expert's valuation of the Project. The Claimants further requested an award of attorneys' fees in the amount of $250,000. Finally, the Claimants sought to

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[10] In his Report, the Expert initially calculated the value of the Project in Rials on the ground that the buyer of the Project would pay for the Project in Rials. The Expert then employed the official exchange rate prevailing on 31 January 1980 of Rials 70.6 to $1 to express the Project's value in Dollars. The issue of the exchange rate is discussed below in paras. 220-23, infra.

[11] At the exchange rate of Rials 70.6 to $1, Rials 432 million equals $6,119,000. See id.

recover their share of the amount charged by the Expert for his fees.

14. The Respondents requested the Tribunal to dismiss the Claimants' claim and to issue an award confirming their counterclaims. They requested the Tribunal to reject the Expert's valuation and submitted that the actual value of Shah Goli was negative. They supported their position with an alternative valuation of Shah Goli made by Coopers & Lybrand on the basis of the Expert's own model, which resulted in a negative net present value for the Project of Rials 219.36 million ($3.11 million).

15. The Respondents further requested that, should the Tribunal award the Claimants any compensation, such compensation should be limited to the Claimants' share of the value of Shah Goli, i.e., excluding any alleged loans. Furthermore, any such compensation should be made in Rials, or if made in Dollars, that conversion should be made on the basis of the actual rate (commercial or free market rate) prevailing on the date of the Award or the payment of the Award. Further, they requested that no interest be awarded, and alternatively, that if any interest is awarded, it should be simple interest at a rate of not more than six percent from the date of the Award. The Respondents submitted that the Parties should bear their own costs of arbitration, including their respective shares of the Expert's fees.

16. With respect to four other cases pending before the Tribunal which are related to the Project, the Respondents requested the Tribunal to defer the issuance of the Award in this Case pending the decision of those other cases, or alternatively, to ensure that compensation, if any, is not paid twice.

V. The Expert's Valuation Concept, Methods and Approach

17. The Expert described his task as being "to establish a value of Shah Goli Apartment Company including the Project, which may be used as a basis for the Tribunal when it is to decide on the question of compensation to Starrett as a result of the fact that Shah Goli was taken on January 31, 1980." Central to achieving this purpose was the Expert's determination of the Project's "fair market value." This Section will summarize how the Expert estimated the Project's fair market value and, more generally, the various stages of the Expert's valuation.

1. The theoretical concept of "fair market value"

18. The Expert based his valuation on the concept of "fair market value" in its purely economic meaning. At the Hearing, the Expert defined fair market value as "the price that a willing buyer would buy given goods at and the price at which a willing seller would sell it at on condition that none of the two parties are under any kind of duress and that both parties have good information about all relevant circumstances involved in the purchase." Thus, fair market value in its purely economic sense, according to the Expert, assumes that the buyer and the seller are reasonable businessmen who are each seeking to maximize their profit and who are well-informed about all relevant factors prevailing on the valuation date. The effect of subsequent events are to be ignored unless they were reasonably foreseeable on the valuation date. Such subsequent events, according to the Expert, may be used only to test assumptions made as to the future.

19. The Claimants stated that the Expert's conclusions are based on sound valuation principles. Accordingly, they

endorsed the Expert's use of the concept of fair market value in its purely economic meaning.

20. The Respondents did not oppose the Expert's theoretical concept of "fair market value" as the model for the valuation, provided that he would employ it in its purely economic meaning and in the light of two principles stated in his Working Report as governing the valuation, namely, that the valuation was to be based on conditions prevailing on 31 January 1980, and that the effects, if any, of acts of the Government of Iran or revolutionaries were not to be excluded from the valuation. However, they asserted that the Expert had departed from the concept of fair market value in its purely economic meaning and had introduced legal considerations into it. In so doing, the Expert had gone beyond his terms of reference and had consequently overstated the fair market value of Shah Goli. The Respondents saw no justification in the use of subsequent events not reasonably foreseeable on the valuation date, even as a check, since such use encouraged a valuation based on hindsight, rather than on contemporaneous expectations. The Expert should thus have ignored such events in the valuation.

2. Adjustments in determining "fair market value"

21. In applying his theoretical concept of fair market value, the Expert determined that the value of the Project and Shah Goli was "influenced - both negatively and positively - by the upheavals in Iran during 1978-1979, including the Revolution and various revolutionary events up to the valuation date."

22. The Expert made certain adjustments in arriving at fair market value. Based on his understanding of international legal practice, he excluded the effects of the

taking of Shah Goli and of the anticipation thereof. In addition, he identified and eliminated the effects of what he considered to be actions taken by the Government to diminish, either directly or indirectly, the value of Shah Goli. The Expert concluded that there was a "sliding scale" of Government actions ranging from measures affecting the economy and all property owners in general to measures directed at a single individual or particular group. Accordingly, the Expert listed a number of Government acts the effects of which were to be excluded from the valuation. These acts, according to his interpretation of the Interlocutory Award, resulted in the taking of Shah Goli. Apart from Government acts "intended to diminish the value of Shah Goli," he identified other Government acts "which possibly had a negative influence on the value of Shah Goli," particularly on the price level of apartments available for sale after the valuation date. Finally, the Expert submitted his conclusions on the exclusion of Government acts to the Tribunal for decision.

23. The Claimants submitted that the Expert was correct to eliminate the effects of the Government acts in question in determining the Project's fair market value.

24. The Respondents disagreed with the Expert's exception to the theoretical concept of fair market value. In the Respondents' view, "the Expert has clearly made gross mistakes in the identification of the applicabilities of the act of nationalization or the anticipation thereof." The Government acts, the effects of which the Expert disregarded, "include almost all of the public policies of the government and the laws promulgated after the Revolution for the implementation of those policies." The Expert had, the Respondents submitted, in fact excluded all the effects of the Revolution from his valuation. The Respondents asserted that therefore the Expert's model:

> "is not consistent with the general principles of evaluation. He has changed the findings of the Tribunal set forth in the Interlocutory Award, particularly the date of evaluation. He has taken into account the effects of the Revolution, which are an integral part of the valuation, only in those parts which are favourable to Claimant but he has excluded the other parts from his valuation. Thus the Expert by involving himself with issues beyond the scope of the terms of his reference has arrived at a conclusion which is inconsistent with the facts of the project and is objected to by Respondents."

25. Mr. Chilvers of Coopers & Lybrand submitted that the Expert should have valued Shah Goli as he saw it on 31 January 1980, and arrived at a separate adjustment for the pre-taking factors, but only to the extent that any of the individual Government acts in question could be said to have been part of the nationalization or the anticipation thereof, as contrasted with general policies, market forces, or cultural changes for which, in his view, no adjustment should be made.

3. Assumptions on which the valuation is based

26. During the course of his valuation, the Expert made a variety of assumptions and decisions. In his Final Report, the Expert identified a number of legal and other questions that he specifically refers to the Tribunal, but in respect of which he nevertheless took a provisional position in order to perform the valuation task assigned to him. These questions are discussed in the relevant Sections below.

27. Of particular importance to the Expert's valuation was his concept of the "reasonable businessman." The Expert used the reasonable businessman to embody the assumptions on which the valuation was based and to represent the hypothetical purchaser of the Project on 31 January 1980. Pursuant to his concept of fair market value,

the Expert assumed that the Project would be purchased on the valuation date by a reasonable businessman who was rational, well-informed of all relevant factors, and not under any form of duress or coercion. The Expert further assumed that the reasonable businessman would have been a local investor, i.e., an Iranian, seeking to invest and realize any gain or loss in Rials. In this respect, the Expert stated that he had:

> "made the assessment that a foreign investor would have needed to count on a higher degree of uncertainty and a higher level of risk, and that his valuation of Shah Goli's Project would, therefore, have resulted in a lower value than that arrived at by an indigenous investor. To take a foreign investor as the point of departure would, consequently, merely further complicate the valuation without providing a corresponding more reliable basis for my standpoints."

28. The Claimants pointed to a number of assumptions by the Expert that resulted in decisions adverse to the Claimants notwithstanding the strength of their position. Nevertheless, the Claimants did not argue that any such decisions should be rejected, but rather "urge the Tribunal to accept and confirm the Expert's conclusions in their entirety."

29. In general, the Respondents argued that the Expert made "erroneous interpretation[s] of legal issues with which the Expert involved himself unnecessarily," and that consequently the value assessed has been inflated. The Respondents' objections to particular assumptions and calculations of the Expert are discussed in the relevant Sections below. In particular, the Respondents disagreed with the Expert's use of a local investor rather than a foreign investor as the presumed purchaser of Shah Goli and the Project, arguing that this had resulted in an unrealistic reduction of the risk factor and a corresponding overvaluation of the Project, while the Expert had also

applied the German-Iranian Double Taxation Treaty, which was inapplicable to a local investor, to reduce the tax rates applicable to Shah Goli.

30. Coopers & Lybrand also employed the concept of the reasonable businessman in their report. In particular, Mr. Chilvers stated at the Hearing that he concurred with the Expert's assumption that the reasonable businessman would have been a local investor, although he was of the view that the Expert had not included in the valuation all of the factors which a reasonable businessman would have considered.

4. The stages of the valuation

31. The Expert conducted his valuation in three basic stages. First, the Expert determined Shah Goli's adjusted net book value as of the valuation date. See infra Section A.VII. To do so, the Expert first collected the value of the company's assets and liabilities from the company's books. He then made a number of adjustments in order to arrive at the adjusted net book value as of 31 January 1980.

32. Second, the Expert determined Shah Goli's fair market value. See infra Sections A.VIII-X. For this purpose, he employed the "discounted cash flow method" ("DCF method") of valuation. This method, as applied by the Expert in this Case, sought to derive the net present value of Shah Goli and the Project as at the valuation date by applying a discount rate to a forecast of the company's remaining costs and revenues as distributed in time. Thus, to arrive at the Project's fair market value, the Expert (i) calculated the remaining revenues in the Project, (ii) calculated the remaining costs in the Project, and (iii) applied a discount rate to the resulting cash flow. This discount rate was based on a return on capital expected by a reasonable businessman on 31 January 1980 as well as on the

expected rate of inflation, rate of real interest, and rate of risk.

33. Third, the Expert made certain further adjustments in order to determine the Claimants' share of Shah Goli as of 31 January 1980. See infra Section A.XI. He first subtracted Shah Goli's adjusted net book value from the company's fair market value, and thereby determined that Shah Goli would realize a profit from the sale of the Project. He then assumed that Shah Goli would be liquidated. This step was necessary because Shah Goli was a one-project company whose only purpose was to complete the Project; therefore, after the Project was completed, Shah Goli would have no further function. He considered the costs of such liquidation, and, in his view, they would be negligible. The Expert then made adjustments for what he considered to be applicable taxes, and for the minority share of Shah Goli not owned by the Claimants. Finally, the Expert calculated the Claimants' share of remaining share capital. Based on these adjustments, the Expert determined the Claimants' share of Shah Goli as of the valuation date.

34. The Expert similarly calculated the value of Starrett Construction as of the valuation date.

35. In addition to determining the Claimants' share of Shah Goli and Starrett Construction, the Expert also determined that the Claimants or their subsidiaries had made certain loans to Shah Goli. See infra Section A.XII. He also determined how to take into account the Respondents' counterclaims in the valuation. See infra Section A.XIII.

36. The Claimants endorsed the stages of the Expert's valuation, stating that the Expert reached his conclusions "on the foundation of a well-constructed valuation model and sound valuation principles." In particular, they agreed with him in the application of the DCF method.

37. In principle, the Respondents agreed with the Expert's approach to the various stages of the valuation. They "considered that the circumstances of Shah Goli were such [as] would permit a concurrence with Mr. Svensson's original idea about the method of valuation," namely, the "fair market value" concept and the DCF method, provided that he would apply that concept only in its strictly economic sense. Coopers & Lybrand also concurred with the Expert's method, although, as noted below, they disagreed with the way in which the Expert applied this method and the results that he reached.

VI. The Result of the Valuation

1. The Expert's result

38. According to the Expert, the reasonable businessman would have been prepared, under the premises governing the valuation, to acquire the Project for a total cost of Rials 4,754 million. This thus represents the "fair market value" of the Project in the hands of Shah Goli. This would result in a gross profit to Shah Goli of Rials 377 million. Further, after deducting taxes and the minority share of Shah Goli, the Expert determined that the Claimants' share of the value of Shah Goli (Rials 231 million) together with the value of Starrett Construction (Rials 201 million) amounted to a total of Rials 432 million as of 31 January 1980, or, based on the official exchange rate of Rials 70.60 per $1, to $6.119 million. As part of the valuation, the Expert concluded that the following loans were expended for the purpose of the Project:

(a) Loans to Shah Goli from:[12]

		Rials	Exchange Rate	Dollars
1.	Starrett Housing International	900,814,270	per books	12,942,044
2.	Starrett Systems, Inc.	13,601,805	"	196,700
3.	Starrett Housing Corp.	211,211,000	"	3,017,300
4.	Starrett Housing GmbH	1,270,710,000	"	18,100,000
		2,396,337,075		34,256,044
5.	Starrett Construction	336,257,000	70.6	4,762,847
6.	Bank Omran[13]	1,126,614,417	-	-

(b) Loans to Starrett Construction from:

1.	Starrett Housing Corp.	48,311,399	70.6	684,297

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[12] In the Expert's Notes submitted at the beginning of the Hearing, the Expert made an adjustment to his calculation of the loans which he stated only shifted a part of one loan from one company to another and did not affect the total value of the loans claimed by the Claimants. In particular, this adjustment reduced the loan from Starrett Housing Corp. to Shah Goli by Rials 77,700,000 and correspondingly increased the loan from Starrett Housing Corp. to Starrett Construction by the same amount.

[13] The loan from Bank Omran to Shah Goli is not itself in dispute between the Parties. This loan is comprised of two elements which the Expert considered in different stages of his valuation and which the Tribunal discusses below: (i) the Bank Omran overdraft (see infra para. 74), and (ii) land cost (see infra para. 158).

2. The Expert's "overall assessment"

39. As stated above, the Expert referred many of his assumptions and decisions with regard to his valuation to the Tribunal. He confirmed at the Hearing that the Tribunal could, of course, replace his assessments with its own, and he also confirmed that in such a case he could provide the Tribunal within a reasonable time with the results that such changes would produce on his overall assessment. When submitting his Final Report, the Expert also stated:

> "By indicating the assumptions on which I worked, and by motivating my conclusions, I hope I made it easier for the Tribunal to understand and possibly to adjust the final result according to the Tribunal's own judgement. In this way, my report will be useful - even if the Tribunal's view differs from mine."

40. While certain details could easily be changed without upsetting the whole of the valuation model, the Expert emphasized that there were other areas in his Final Report which if modified would disturb the valuation as a whole. The Expert provided a sensitivity analysis for four essential areas to show what effect their alteration would have on the valuation. He stressed that he had strived to link his subjective assessments and all the information given to him to form an overall picture for the valuation.

41. The Claimants stated that they:

> "do not believe any useful purpose will be served . . . by reopening, relitigating or redetermining any of the vast array of interrelated issues that the Expert has thoughtfully and competently resolved. Indeed, to do so would not only unduly prolong and further delay the completion of these proceedings, but could seriously impair the many interdependent structural and decisional elements of the Final Report and upset the equilibrium achieved by the Expert's ultimate valuation conclusions and recommendations."

42. If the Tribunal is satisfied with the basic premises and the principles applied, the reasons given and the overall result reached by the Expert, as well as with the fairness with which he conducted the proceedings, the Tribunal should, in the Claimants' opinion, accept his determination without attempting to reexamine any one item. The Claimants added that their request was supported by the very concept and function of an expert appointed by a tribunal or court who has independent authority and whose opinion should be given great weight.

43. If, however, the Tribunal changes at the Respondents' request one item in their favor, then, as a matter of equality and fairness, the Claimants at the Hearing requested the Tribunal to reconsider and modify a number of items in their favor. In particular, the Claimants presented at the Hearing a list of six items on which the Expert had taken a different view, despite the strength of the Claimants' argument. The Claimants argued that if significant items in the Expert's valuation were adjusted in the Respondents' favor, then at least these six items should be reconsidered.

44. The Respondents not only objected to the result of the valuation and requested that the Expert's Final Report be disregarded as a whole, but they also requested changes, modifications or corrections with respect to a number of individual issues and items touching on most elements of the valuation. In this respect, they regarded the Expert's estimate of future revenues as the most important part of the valuation.

45. At the Hearing, Mr. Chilvers expressed the opinion that some of the Expert's calculations could be adjusted without disturbing the overall equilibrium of his conclusions, while this could not be done with respect to certain of his basic assumptions. In this regard, the

Coopers & Lybrand report identified the price of apartments to be sold and remaining construction costs as the two factors having the greatest effect on the final valuation.

46. At the Hearing, the Respondents objected to the Claimants' raising certain items in the valuation that the Claimants wished the Tribunal to reconsider in case other issues were to be changed in the Respondents' favor. The Respondents argued that the Claimants should not be allowed to raise such issues because the Claimants had in their Memorial filed on 7 July 1986 accepted all the results of the Final Report and because, this being the Tribunal's and the Respondents' understanding, the Respondents had not prepared any comments on points already accepted by the Claimants. Throughout their comments, as well as at the Hearing, the Respondents requested the Tribunal to modify or correct every element in the Expert's valuation as to which they object and thereby to reject any notion of a package that could not be disturbed. Moreover, they pointed out that the Expert himself had specifically referred a large number of items in the valuation to the Tribunal for final decision.

VII. Shah Goli's Financial Position as of 31 January 1980

47. As described above, the Expert approached the valuation in several separate stages. In the first stage, he collected the values of Shah Goli's various assets and liabilities as derived from the company's books. He then made various adjustments to these values in order to determine the company's adjusted net book value.

1. Trial balance as the point of departure

48. The Expert stated that Shah Goli's last audited balance sheet before the date of the taking was as of 31 December 1979. A trial balance was sent monthly to Starrett in the United States for analysis. The Expert also stated that Starrett kept a complete record of the costs which Shah Goli paid from its account in New York, together with Starrett's expenses in the United States.

49. Since the valuation date was after the last audited balance sheet, the Expert chose the trial balance as of 31 January 1980 as his point of departure to determine Shah Goli's financial position, using the audit at the end of 1979, which he regarded as professional and reliable, as a reference.

50. The Parties agreed that the Expert was correct in using Shah Goli's trial balance as of 31 January 1980 as the starting point for the determination of its financial position on that date.

2. Adjustments to the trial balance

a) Adjustments made by the Expert

51. Since the trial balance used by the Expert as his point of departure contained no accruals or other corrections, he considered it necessary, according to generally accepted accounting principles, to make a number of adjustments in order to reflect accurately Shah Goli's financial position as of the taking date.[14] The Expert

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[14] The adjustments include corrections to be made with regard to loans. Loans are dealt with separately; see infra Section A.XII.

(Footnote Continued)

therefore made adjustments with respect to, inter alia, the Starrett Construction fee; Starrett Construction costs; Azgara Company fee; advances to Azgara Company; land cost; fee from Aranco; accounts payable; correction of bank account; interest costs; and notes payable. Based on his adjustments to Shah Goli's trial balance, the Expert concluded that the Project's adjusted net book value as of 31 January 1980 was Rials 4,661 million.

52. The Expert applied the same procedure to establish an adjusted balance sheet for Starrett Construction. This adjusted balance sheet indicated that Starrett Construction's adjusted net book value as of 31 January 1980 was Rials 821 million.

53. With respect to a large number of these adjustments, the Expert recognized that it was possible "to assume a standpoint other than [he had] elected based on the principles set out." The Expert has referred to the Tribunal the final decision on many of these items. In particular, he referred to his decisions to base the valuation on contracts which in his opinion were valid, to exclude the effect of governmental acts which may have depressed the value of Shah Goli, and to not exclude the effects of events associated with the Revolution in general. He also felt compelled to refer to the Tribunal claims where "contracts and other essential documents are missing and the claims are merely supported by very weak evidence," although the claims in question appeared legitimate.

(Footnote Continued)

Adjustments were also made with regard to certain counterclaims that are taken into account as liabilities of Shah Goli as of 31 January 1980. Counterclaims are dealt with separately; see infra Section A.XIII.

b) The Claimants' comments on adjustments

54. As stated above, the Claimants, while pointing to the fact that the Expert decided several issues adversely to them although he acknowledged the strength of their position, did not request that the decisions of the Expert be modified by the Tribunal. Rather, they urged that the Tribunal accept the Expert's decisions in their entirety. If, however, as stated above, the Tribunal changes at the Respondents' request one item in their favor, then, as a matter of equality and fairness, the Claimants requested at the Hearing that the Tribunal should reconsider and modify a number of items in their favor.

c) The Respondents' requests concerning adjustments

55. The Respondents requested the Tribunal to rectify certain errors in the adjustments made by the Expert, and to include a number of other adjustments which they argued should have been effected by the Expert, in order to reflect the true financial position of Shah Goli as at 31 January 1980. The specific requests made with respect to the adjustments are as follows:

i) Azarnia affiliates' fees:

56. The Respondents contended that the Azarnia companies (Azgara, Bekhar, and Hrazdan; hereinafter referred to collectively as "Azarnia") were entitled to their fees on apartments sold throughout the Project. Even if their contracts with Shah Goli were valid only up to 31 January 1980 (as assumed by the Expert, but disputed by the Respondents), Shah Goli owed Azarnia 8.25 percent of the sales value on the 1,379 apartments sold by Azarnia before that date, less amounts actually paid to Azarnia, and

irrespective of when the sales proceeds are actually received by Shah Goli. They argued that under its contract with Shah Goli, Azarnia's presence in Iran was not necessary for the receipt of its fee, once the fee had been earned by the sale of apartments. Nor was the earning or accrual of such fee contingent on the receipt of the sales proceeds, for Azarnia had no contractual obligation for the collection of such proceeds or for the actual closing of apartments. In support of this, they pointed to the fact that a different fee was payable to Bank Omran for the task of collecting the sales proceeds. The Respondents argued, therefore, that in accordance with generally accepted accounting principles "the entire fee on the sales value of the 1,379 apartments sold by Azgara should be accounted as a deferred cost in Shah Goli's financial statements as of 31 January 1980, to be amortized in future as and when the payments fall due upon the inflow of sales proceeds." They calculated the total fee on the 1,379 apartments at Rials 1,110,587,909, whereas the Expert had only recognized approximately Rials 501 million. This gives a difference of Rials 609,587,909 to be paid. The Expert referred to the Tribunal for decision the question of Azarnia fees on apartment sales proceeds "which came in during the Autumn 1979 and January 1980," which he calculated to be Rials 35 million.

ii) Starrett affiliates' fees:

57. The Respondents argued that Starrett Construction personnel left Iran in July 1979, and ceased to perform any contractual services to Shah Goli after that date. According to their contract, their presence in Iran and their supervision of the Project was necessary for earning their fee. Therefore, Starrett Construction's fee should be limited to sales proceeds up to July 1979 and not up to 31 January 1980 as assumed by the Expert. In particular, the Respondents requested that Rials 50 million out of the

Starrett Construction fee of Rials 714,370,090 be eliminated from the valuation as being in respect of the period during which Starrett Construction personnel were no longer in Iran.

58. Moreover, they contended that all of Starrett Construction costs, and not only the Rials 452 million recorded in Starrett Construction's books and recognized by the Expert, should be included for the purpose of determining Starrett Construction's profit. Furthermore, by allocating the entire 11.75 percent fee of Starrett affiliates to Starrett Construction, the Expert included the incomes of Starrett Technical and Shahre Zomorod as that of Starrett Construction against his terms of reference.

iii) Starrett loans (disbursements outside Iran):

59. The Respondents asserted that various disbursements allegedly made by Starrett companies outside Iran between 1975 and September 1981, amounting to a total of $5,963,112, including $596,507 allegedly disbursed after 31 January 1980, were not recorded in Shah Goli's books nor reflected in its Board minutes or in any past correspondence. Nor had Starrett claimed these amounts prior to 31 January 1980.

60. They also asserted that they were not provided an opportunity to examine any of the documents relating to these expenditures, nor were these alleged loans supported by any loan agreements. Moreover, a substantial portion of these costs were attributable to Starrett Construction rather than Shah Goli. In spite of this, they argued, the Expert had charged an amount of Rials 77,700,000 ($1,1 million), which was Starrett Construction's cost, as a loan to Shah Goli. See supra para. 38 n.12. As to the $596,507 of disbursements made after the valuation date, the Respondents asserted that this was outside the Expert's

terms of reference, and further, that $236,473 of this amount was disbursed after 19 January 1981 and is consequently outside the Tribunal's jurisdiction. Moreover, assuming that these disbursements were chargeable to the Project, the appropriate payment approvals were not obtained from Shah Goli.

61. They asserted, furthermore, that $995,000 of the amounts recognized by the Expert as Starrett loans to Shah Goli were personal advances to Azarnia or Azgara Co., of which $935,000 had been repaid by Azgara through Starrett Construction and Shah Goli, as reflected in their books. This thus constituted a double credit to Starrett Housing in respect of a private loan which in any case falls outside Shah Goli's valuation. A further $215,000 of Starrett payments to Iran International (a Starrett affiliate) which the Expert included in the alleged loans to Shah Goli was already booked in Shah Goli's and Starrett Construction's accounts as at 31 January 1980.

62. In the light of the foregoing, the Respondents requested the Tribunal "to eliminate the entire amount of $5,963,112 which has been treated by the Expert as additional loans due by Shah Goli to Starrett."

iv) Escalation clause:

63. The Respondents requested the Tribunal to eliminate the amount of Rials 82 million included by the Expert in the valuation in respect of the escalation clause on apartments closed prior to 31 January 1980. They pointed out that the escalation clause was never applied by Shah Goli even under the Claimants' management, and argued further that its application was neither automatic, in contractual terms, nor feasible in view of the depressed conditions of the housing market in Iran. Moreover, they argued, the escalation clause "should be deemed cancelled in

the case of 1,379 apartments actually sold prior to 31 January 1980, [and] Shah Goli is under legal obligation to buyers to observe its undertaking to cancel such escalation as per procès-verbal dated June 28, 1979 irrespective of whether closing takes place [before] or after 31 January 1980." The Expert referred to the Tribunal for decision the question of the Rials 82 million price escalation on closed apartments.

v) Correction of Chase Manhattan Bank account:

64. The Expert's adjustment which reduced the balance in Shah Goli's books in connection with the overdraft on a Chase Manhattan Bank account was not adequately explained. The Respondents requested rectification of this adjustment (Rials 11,642,823) which reduced the Project cost and thereby increased the value of Starrett's share correspondingly.

vi) Debts to Aranco:

65. The Respondents objected to the Expert's rejection of an amount of Rials 54,565,354 in respect of Aranco invoices for concrete. The Expert took this decision in reliance on the Bayat audit report of 1979. The Respondents objected to the Expert's interpretation of the Bayat audit in this respect, and argued that that audit, which had been based on the Farsi books of account which differed considerably from the English books, had raised a number of reservations regarding the "cash basis" method of accounting used. The Bayat audit consequently indicated that a statement of account was expected from Aranco in order to establish the full balance of that account. The Expert failed to investigate or to recognize this item, despite his recognition of possible gaps in Shah Goli's books arising from its "cash basis" method of accounting. The Respondents

therefore requested the Tribunal to adjust Shah Goli's valuation by recognizing this debt.

vii) Payments to suppliers and contractors:

66. The Respondents asserted that the Expert included an amount of Rials 120 million in the alleged Starrett loans to Shah Goli, this amount being in respect of payments to suppliers and contractors in the United States allegedly made by the Claimants before the valuation date. The Respondents requested the Tribunal to eliminate this amount, which was not recorded in Shah Goli's books, from the valuation. The Expert also referred this question to the Tribunal.

viii) Liabilities arising from operation of law:

67. The Respondents asserted that the Expert ignored certain statutory liabilities of Shah Goli accrued up to 31 January 1980. These include the company's liability to pay an annual Municipality Renovation Levy, its liability in respect of Barren Land Tax, and a penalty for its failure to obtain a building permit for site 1175. These three items add up to a total of Rials 776,100,416 as at 31 January 1980. The Respondents pointed out that a full description of these liabilities had been made available to the Expert and had in fact been noted by him in his Report, but that he had failed to recognize these liabilities. They therefore requested the Tribunal to include these amounts in the valuation. The Expert referred this question to the Tribunal.

ix) Tax assessments for 1978 and 1979:

68. The Respondents also contended that the Expert ignored in his adjustments income tax assessments for 1978 (Rials 1,474,204) and 1979 (Rials 52,972,222). The tax

assessment for 1978 had in fact been paid by Shah Goli and was reflected in its account code 2300C, of which the Expert was aware.

69. Regarding the tax assessment for 1979, the Respondents asserted that the Expert "is mistaken in believing that this assessment was motivated by formal shortcomings in the annual report, and in being of the opinion that the responsibility for prospective errors in this respect does not fall with Claimants." They argued that Shah Goli's books of accounts for 1979 had been maintained by the Claimants and that, in the short time that had ensued after Mr. Erfan's appointment as Temporary Manager on 30 January 1980, the Respondents could not have prepared the required profit and loss account for 1979 for submission to the tax authorities in order to avoid the "arbitrary" or ex-officio tax assessment for that year.

70. In view of the foregoing, the Respondents requested the Tribunal to reduce Shah Goli's valuation in these respects by recognizing the tax assessments for 1978 and 1979. This item is also referred to the Tribunal by the Expert.

x) Certain adjustments on which the Expert is silent:

71. The Respondents asserted that the Expert had failed to investigate or recognize certain other liabilities of Shah Goli. These comprised: cost accruals not cleared out of Accounts Receivable by 31 January 1980; liability for employees' social security premiums relating to the year 1978 but recorded in the books in 1982; accrual of wages and salaries for the last 11 days of January 1980; accruals for the New Year's bonus for the period 21 March 1979 to 31 January 1980; legal expenses referred to in the Bayat audit report of 1979; and adjustments for contractors' withholding taxes. These six items amounted to a total of Rials

98,436,107. In addition, the Respondents argued that the full cost of land, i.e. 15 percent of sales revenue, should be accrued and accounted for as at 31 January 1980, rather than at future dates as the Expert has done. This group of adjustments should also include an amount of Rials 69 million in respect of withholding taxes on certain contracts. The Respondents therefore requested the Tribunal to adjust Shah Goli's valuation in respect of these amounts.

xi) Azgara collateral:

72. The Respondents asserted that an amount of Rials 305 million of Azgara funds, held in a special account at Bank Omran as collateral for a loan of Rials 280 million given by that Bank to Shah Goli, had been applied at Shah Goli's request to reduce the balance of that loan. They therefore requested the Tribunal to adjust the valuation by recognizing Shah Goli's liability to Azgara in this regard.

xii) Adjustments to notes receivable:

73. The Respondents asserted that an analysis of sales for each building submitted by them to the Expert showed that outstanding notes relating to a number of apartments had already been paid to Shah Goli. They therefore requested the Tribunal to recognize a correcting entry of Rials 5,615,421 to eliminate these notes, which would thus reduce Shah Goli's assets as at 31 January 1980, by that amount.

xiii) Bank Omran overdraft:

74. The Respondents asserted that the Expert incorrectly made an adjustment of Rials 82,799,515 in respect of Shah Goli's overdraft with Bank Omran, by failing to recognize a number of checks issued in August and September 1978 on that account and recorded in Shah Goli's books, but

which had not been presented by the holders to the bank for collection as at 31 January 1980. While the Expert made an adjustment in respect of ten checks (Rials 28,704,318, issued to Starrett Construction Iran), the Respondents asserted that the other checks, amounting to Rials 54,095,097, issued to Azgara and other creditors, were not recognized by the Expert. They therefore requested the Tribunal to adjust the Expert's assessment by at least recognizing the Azgara checks amounting to Rials 51,561,792.

xiv) Future collections:

75. The Respondents asserted that the Expert added to Shah Goli's receivables as at 31 January 1980 an amount of Rials 74,396,544, on the assumption that the 99 customers to whom apartments were transferred prior to the valuation date had not paid the full price of those apartments. The Respondents argued that there are no grounds for a potential buyer of the Project to assume that such a collection would be made in the future, in view of the fact that the 99 customers had received full and unconditional title to those apartments. Moreover, they contended, Shah Goli had not been able to make such a collection after 31 January 1980. They therefore requested the Tribunal to eliminate this item from the valuation.

xv) Soil removal and related land rental:

76. The Respondents requested the Tribunal to recognize a Shah Goli liability of Rials 554 million in respect of soil removal and related land costs. They further requested the Tribunal to recognize another Shah Goli liability of Rials 19 million in respect of space rent for a concrete plant. The Expert referred both items to the Tribunal.

VIII. Future Revenues

1. Introduction

77. Having determined the financial position of Shah Goli as of 31 January 1980, the Expert proceeded, at the next stage of his valuation, to establish the "fair market value" of the Project. For this purpose, he applied the "Discounted Cash Flow" method, as discussed in para. 32, supra, according to which the expected cash flow for the remaining lifetime of the Project was determined and then discounted back to its present value. In order to establish the net cash flow of the Project, the Expert drew up a forecast of future revenues and remaining costs. This Section deals with his estimate of future revenues.

78. One factor concerning future revenues, namely the price level for unsold/resold apartments, is described by the Expert in his sensitivity analysis as "the most crucial individual factor . . . where a slight alteration is of considerable importance to the value of the Project, given the number of free apartments as presupposed in the valuation," i.e., apartments that had not yet been sold or are available for resale. In the Respondents' view, the Expert's estimate of future revenues constituted by far the most important part of his Report, and, in particular, Coopers & Lybrand identified the expected future price of apartments that had not yet been sold on 31 January 1980 and those that were assumed to be available for resale on that date as one of two factors that had the greatest effect on the final valuation (the issue of the total number of apartments is discussed in the following Section).

79. In order to estimate the Project's future revenues from the proceeds of apartment sales, the Expert first calculated the remaining proceeds from apartments sold before 31 January 1980. He then determined how many

apartments remained to be sold on the valuation date, how many of the apartments sold before that date would become available for resale after that date, the time at which they would be sold, and their price. In addition, he estimated sales proceeds from extra parking spaces and heavy duty construction equipment. The Expert submitted that the cardinal differences in the Parties' understanding concerning the revenues from the Project relate to the following issues: the number of apartments available for sale after the date of valuation; the price level for unsold apartments; the applicability of the escalation clause; and the possibility of selling extra parking spaces.

2. Apartments available for sale or resale after 31 January 1980

80. There was general agreement among the Expert and the Parties that there was a total of 1,538 apartments in the Project. Preliminary to a discussion of the legal status of these apartments, it is necessary to clarify the meaning of several terms used by the Parties and the Expert. An apartment was considered "sold" when a purchaser entered into an apartment purchase agreement with Shah Goli; an apartment was considered "closed" when an apartment was delivered to a purchaser; an apartment was considered "available for resale" when after it had been sold it became available to Shah Goli to sell again because a purchaser, or an assignee of the purchaser, did not exercise his rights under an apartment purchase agreement. Of the total number of apartments in the Project, the Expert found that as at 31 January 1980, 1,235 had been sold but not closed; 173 were unsold; 99 were closed; and 31 had become available for resale.

81. The Expert then estimated the number of apartments available for sale or resale on 31 January 1981. He first determined, as stated above, that 173 apartments remained

unsold as of 31 January 1980. He derived this figure on the basis of apartment transactions over the period from November 1977 to 31 January 1980. He next determined, as described immediately below, that 600 apartments out of the number sold before the valuation date would become available for resale after that date. Thus, a total of 773 apartments would, in the Expert's opinion, become available for sale/resale.

82. On the number of apartments that would be available for resale, the Expert adopted the Claimants' view that 600 apartments would become available for resale as a consequence of a great number of people leaving Iran permanently in conjunction with the Revolution, among whom were a number of Shah Goli apartment purchasers. In the course of the valuation proceedings, the Claimants submitted an estimate of the Project's revenues and costs as of 31 January 1980 which indicated that, based on a list of 99 closed apartments showing 51 new names of apartment purchasers, at least 600 out of the sold but not yet closed apartments could be expected to have become available for resale. The Expert's decision to accept the Claimants' estimate was based on several grounds. First, the Expert concluded that "there is irrefutable proof that certain apartments became free for re-sale as a result of the social and political unrest in Iran including the Revolution itself." To support this conclusion, the Expert refers, inter alia, to the following: a letter dated 7 April 1979 from A. Radice, Shah Goli's managing director at the time, to Bank Omran which referred to a sampling carried out in the first building and showed that only 65 percent of the buyers were still in Tehran and were anxious to consummate the purchase of their apartments; a memorandum dated 1 May 1979 from Shah Goli's lawyer which, according to the Expert, indicated that apartments had been taken over by the Foundation for the Oppressed; and the decision reflected in a Procès-Verbal of 28 June 1979 of a meeting between Shah

Goli and the Alavi Foundation to the effect that Shah Goli was to make available 20 apartments to an employee of the Alavi Foundation.

83. Second, the Expert found that the Respondents had submitted information (for a different purpose) which indicated that over 600 purchasers of apartments were in default on their apartment purchase promissory notes as of 31 January 1980. In the Expert's opinion, this indicated that "a number of apartments may possibly be the target for potential resale in the future."

84. Finally, the Expert considered that, in accordance with his interpretation of international legal practice, he should accept the Claimants' estimate in view of the Respondents' refusal to provide him with information on the number of apartment purchasers who had left Iran and were therefore unable to complete their purchase. The Expert, stating that the "Respondents, who must be in possession of such information, have failed to make such submissions at my request," concluded:

> "On the basis of the arguments which Claimants have put forward, and in the absence of reliable information from elsewhere, I have employed the estimation drawn up by Claimants. This is a juridical standpoint which I explicitly submit to the Tribunal for ruling."

85. The Claimants concurred with the Expert's conclusion that 600 apartments would be available for resale, although they submitted that the number of such apartments may have been higher. They also argued that international legal practice permits a tribunal to draw reasonable adverse inferences if a party fails to produce evidence within its exclusive possession.

86. The Respondents asserted that no apartments were available for resale, and that the conclusions drawn by the

Expert in that respect are erroneous both from the viewpoint of facts and law. They argued that there is no proof that among the Iranians alleged to have left the country there were any Shah Goli apartment purchasers or that such persons would never return to Iran. Besides, according to the Respondents, whether or not original buyers of Shah Goli apartments left Iran is irrelevant to the Case. Their departure from Iran would not have deprived such buyers of their legal rights in Iran. They could have appointed representatives or agents to exercise their rights on their behalf, and a number of them had done so. The Respondents also stated that "[n]either the absence of a person from Iran nor the expropriation and transfer of his property by the State, if any, would give Shah Goli the right to repossess apartments of customers who at the date of valuation had valid agreements with the company."

87. The Respondents further submitted that a potential buyer of Shah Goli could not ignore the high risk of litigation connected with the attempt to cancel purchase agreements. As a matter of Iranian law, the sending of default notices is not sufficient ground for terminating a contract, even where the purchaser in default does not subsequently take delivery if so requested in the notice. The Respondents cited several such cases of purchases of Shah Goli apartments where Iranian courts have decided in this way. They also referred to Shah Goli's practice of either not sending notices in cases of default, or of not enforcing such notices. Furthermore, they pointed to the practice of switching buyers from one apartment to another in order to avoid having to reimburse them or to pay other damages for the extended delays in the delivery of their apartments, a practice established by Mr. Radice in order to cope with Shah Goli's financial problems.

88. The Respondents discussed the particular items of information upon which the Expert assumed that 600

apartments would become available for resale. They disagreed with the conclusions the Expert had drawn from those documents, and they did not regard them as a sufficient basis for his result. The Respondents stated that a potential buyer would not have had access to any more information existing on 31 January 1980 than the Expert had received. It would be against established juridical and valuation principles for the Expert to make use of any other information.

89. The Respondents also asserted that there were certain flaws in the statistical basis from which the Expert arrived at the number of 600 apartments available for resale. They asserted that of the 51 alleged new buyers on the list of 99 closed apartments, which formed the basis of the Claimants' estimate of apartments available for resale adopted by the Expert, 14 consisted of transfers made by the original buyers themselves to others, 17 consisted of reallocations or switching of buyers of other apartments to avoid reimbursing them for cancellations arising from delayed delivery (as explained above), and the remaining 20 apartments were eliminated by the Expert himself in his analysis of the 51 apartments. The Respondents contended that the Expert had nevertheless disregarded the 30 percent indicated by his own analysis, and had applied 51 percent to the number of sold (but not closed) apartments to arrive at the 600 apartments allegedly available for resale.

90. Regarding the alleged confiscation of apartments by the Foundation for the Oppressed, the Respondents asserted that Shah Goli's lawyer's memorandum of 1 May 1979 only raised Mr. Radice's concern regarding purchasers whose property "may have been taken over" by the Foundation, whereupon Mr. Radice gave instructions to inquire from the Public Prosecutor's Office "if there is any purchaser of their apartments subject to the above confiscation." They asserted that Shah Goli's lawyer never spoke of

confiscations having taken place; that the Claimants have not submitted any evidence of such confiscations up to the valuation date; that even assuming that a confiscation took place, the rights of the original buyer or his successor in relation to the company would remain unchanged; and that, in sum, that memorandum does not support the conclusion drawn from it by the Expert.

91. Regarding the 20 apartments allegedly made available to an employee of the Alavi Foundation, Mr. Ellahi, the Respondents again asserted that there is no substance to that allegation. They pointed out that Mr. Ellahi, who was the Director of the Bureau for Co-ordination of Apartments of the Foundation, had offered to assist Shah Goli to sell a number of its apartments in view of its severe financial difficulties at that time. This was part of the general effort of the Foundation to assist Shah Goli to reactivate and to complete the Project. They asserted that Mr. Ellahi's readiness to assist Shah Goli in this connection has been gravely misinterpreted as amounting to confiscation of apartments. The Respondents contended that in fact Mr. Ellahi introduced to Shah Goli a number of private individuals as potential apartment purchasers through letters of introduction which specifically stated that "if no result is achieved from the purchase negotiations, kindly consider the contents of this letter as null and void." They stated that these potential purchasers were customers of other apartment companies who had not received their apartments from those companies, and that the proposed arrangement would have enabled them to transfer their deposits from those companies to Shah Goli, to assist in meeting its severe cash shortages at the time.

92. The Respondents further insisted that they had provided the Expert with all relevant information, and that no adverse inferences may be drawn against them. The Respondents asserted that they "should not be expected to

produce evidence for an allegation made by the Claimants. In such a case, the burden of proof is obviously on the Claimants themselves." Consequently, they saw no "juridical, legal or factual grounds for assuming that 600 apartments would become free for resale after the valuation date." They finally requested that the Tribunal rectify the Expert's opinion on the basis of their explanations and evidence.

93. Coopers & Lybrand disagreed with the Expert's estimation of apartments available for resale. They were of the view that the Expert's analysis which showed that 31 percent of the buyers of the 99 closed apartments were different from the original purchasers "would appear to be reasonable" in light of Mr. Radice's earlier survey. Assuming that that analysis is correct (which is disputed by the Respondents), Coopers & Lybrand considered that a reasonable estimate of the number of apartments available for resale could be obtained by applying that percentage to the number of apartments sold but not closed as at 31 January 1980. On that basis, they calculated the number of apartments that could have become available for resale at no more than 393.

3. Refund to purchasers whose apartments are resold

94. The Expert further determined that Shah Goli had a refund obligation to the original buyers who had failed to pay on their promissory notes that had fallen due, and whose agreements would therefore be liable to termination and their apartments resold. He calculated the total refund amount by first multiplying the number of apartments assumed to be available for resale (600), by 44 percent of the average original sales price. This percentage consisted of the portion of the apartment price that was to have been paid before the time of delivery or the transfer of title,

comprising: 10 percent cash deposit on application, 20 percent cash payment on conclusion of a sales contract, and 14 percent of 24 monthly promissory notes. Second, he deducted from this refund amount the average of all uncollected notes receivable. The refund amount was further reduced by a sales commission of 2 percent for Shah Goli which the Expert applied on the basis of a provision to that effect in the purchase agreements. The net payments of the refunds would be made when the apartments in question were delivered to new buyers.

95. Maintaining their principal objections to the treatment the Expert had given to the issue of apartment resales, the Respondents criticized the Expert for having ignored a survey of his own on which, they say, he had based his calculation of the number of apartments available for resale. This survey distributed the uncollected promissory notes to the two Project sites, and the Expert should have followed the same allocation in his calculation of refunds since the average prices for the two sites were different. Instead, he applied his overall average price for both sites, thereby overstating the value of the Project by approximately Rials 236 million. The Respondents requested the Tribunal to rectify this error on the part of the Expert by reducing the expected revenue of the Project by at least $3.4 million. The Respondents argued that the reduction of the refund amounts by a 2 percent "sales commission" resulted from the Expert's misinterpretation of the relevant Article 11 of the purchase agreements. In the Respondents' view, the Expert had overstated the value of the Project by Rials 48 million on this account alone.

96. The Respondents further asserted that the Expert adopted a contradictory approach when he assumed on the one hand that 44 percent of the advance payments from the new buyers of the 600 apartments would be received immediately upon resale in October 1980, whereas the refunds to the

original buyers would not be made until several months later when the apartments are eventually delivered. This contradiction arose from the Expert's uncertainty as to when the defaults on the promissory notes were assumed to occur, and it was contrary to the provisions of the relevant Article 11 of the Apartment Purchase Agreements. They asserted that the Expert's contradictory approach had resulted in understating the liability for refunds and consequently in overstating the net present value of the Project by Rials 319 million.

4. Time of sale of apartments

97. The Expert assumed that all apartments available for sale would have been sold in October 1980, the month in which he expected construction work on the Project to recommence. He based this conclusion on the premises that inflation and the price level of luxury apartments would increase after 31 January 1980, and that by October 1980 conditions in Iran could have been expected to return to normal. Thus, the Expert concluded that Shah Goli could expect to recognize revenue from the sales of apartments by October 1980.

98. The Respondents stated that the Expert produced "[n]o objective and concrete justification . . . for arbitrarily adopting this date on which it is assumed all the apartments would be resold at once." They also asserted that the Expert had not given any explanation for altering this date from August 1980 in his Draft Report to October 1980 in his Final Report. What made this worse, in the Respondents' opinion, was the fact that the Expert had also reduced the construction period to 15 months, as compared to a contemporaneous estimate of 27 months arrived at by Mr. Neghabat on whom he otherwise relied heavily in his valuation, and in so doing had considerably overstated the net present value of the Project.

99. Coopers & Lybrand agreed with the Expert that construction work could reasonably have been expected to recommence in October 1980, but they did not agree that all available apartments would have been sold at that time. Rather, they contended that "new buyers would not have been willing to enter into purchase commitments until they were certain that the properties were complete, that is, available for delivery," given the past delays that had created uncertainty over when the Project might be completed. Thus, they argued that the Expert took revenue from the sales of apartments into account too soon, thereby overstating the net present value of revenues as of 31 January 1980.

5. Apartment prices

100. The Expert assessed the prices of both sold apartments and apartments available for sale or resale, which are discussed in turn below. The Expert, however, prefaced his assessment of apartment prices by stating that, despite his repeated requests to the Respondents, he did not have access to the original sales contracts kept by Azgara Company in Iran, which would have revealed actual apartment prices for the relevant time. He further stated that in February 1985 he was informed by the Respondents that the originals of the contracts had finally been made available by the Azgara Company, but that for several reasons, including the late stage at which they were offered and the fact that the contracts were written in Farsi and no translations were available, he refrained from making a further visit to Tehran to examine them. However, he stated that "[i]n the event the Tribunal so rules, I will arrange for a new visit to Tehran."

a) Price of sold apartments

101. Absent the original contracts, the Expert stated, he assessed the prices of the apartments sold before 31 January 1980 on the basis, inter alia , of his assessment of a revenue analysis prepared by Deloitte Haskins & Sells for the 31 December 1978 audit and a revenue forecast by the Respondents as of 31 January 1980. He determined the average price for the sold apartments in site 809 as Rials 9,345,500, and for site 1175 as Rials 11,084,200. These two "original average prices" form the basis of his calculation of remaining revenues from sold apartments.

102. The Expert then assumed that an escalation clause in the standard purchase agreements, providing for an adjustment of up to 10 percent of the purchase price depending on an increase in construction costs, would be fully applied in accordance with its terms. Finding that construction costs for both Project sites increased by more than 10 percent during the time stipulated by the purchase agreements, the Expert accordingly applied the 10 percent escalation clause, which would be collected upon delivery of the apartments.[15]

103. The Expert also pointed out that the escalation clause had not been applied to the price of any of the 99 apartments that were closed before 31 January 1980. He determined that Shah Goli waived its right to apply the escalation clause in a Procès-Verbal cancelling that clause which it had signed on 28 June 1979 after a meeting with the

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[15] The Expert stated that he calculated no specific amount representing the escalation factor into his estimate of the price of apartments to be sold after the valuation date, but that he included in that estimate what he considered to be an adequate risk reserve, bearing in mind the escalation clause, among other factors.

Alavi Foundation. The Expert, however, considered the Alavi Foundation to be an agency of the Government of Iran and that the actions taken regarding the escalation clause were of the kind to be excluded in the valuation of Shah Goli. He stated that this view needs to be confirmed by the Tribunal. The Expert therefore adjusted the trial balance by adding Rials 82 million for the additional revenue based on the application of the escalation clause to the closed apartments.

104. The Claimants agreed with the Expert's calculation of the price of sold apartments. In their view, the Expert's result with regard to escalation followed from his correct application of the principle of valid contracts. First, the principle was applied when the Expert found that the apartment purchase agreements, which contained an escalation clause, were valid. Second, it was applied when he found for a number of reasons that the Procès-Verbal, which according to its terms cancelled the escalation clause, was not a valid contract.

105. The Respondents asserted that they had made available to the Expert copies of the original purchase agreements, which showed the actual prices of sold apartments and that the Expert acknowledged this at the Hearing. They stated that the original purchase agreements were not available at the time as the Azarnia companies who kept them did not allow access. They argued that the Expert should therefore have used those prices in his calculation of revenue from sold apartments, instead of the other sources he relied upon.

106. The Respondents also asserted that the escalation clause in the purchase agreements had been cancelled by the Procès-Verbal of June 1979. In their view, the Procès-Verbal essentially constituted "an agreement between Shah Goli and the lawful representatives of some 1,379

buyers" to which the Alavi Foundation acceded acting on behalf of Bank Omran and being successor to the Pahlavi Foundation, and also in order to assist Shah Goli in settling some of its financial problems. These financial problems included, inter alia, the financial loss and other damages suffered by the apartment buyers because of the delay in the completion of the Project and in the delivery of their apartments, and the demand for the injection of fresh funds into the company by the shareholders, for the submission of a guaranteed delivery schedule with a penalty clause in favor of the buyers, and for a discount in the land price from the Alavi Foundation. The Respondents argued that the signature of the Alavi Foundation was necessary because the Procès-Verbal directly affected its 15 percent share of the apartment prices as payment for the land.

107. According to the Respondents, the Procès-Verbal was therefore not a governmental act that had to be eliminated from the valuation, for neither was it intended to diminish the value of Shah Goli, nor are the actions of the Alavi Foundation, if any, attributable to the Government of Iran. Rather, it reflected obligations which Shah Goli voluntarily undertook in its own business judgment. Nevertheless, the Expert applied an "additional price escalation amounting to approximately $10.7 million in total." However, given the long delays in fulfilling its obligations, the decline in market prices and the fact that Shah Goli had previously not applied the clause, the Respondents saw "major stumbling blocks" for the reasonable businessman to implement such an escalation in practice. As noted in connection with the discussion of the adjusted balance sheet (supra para. 63), the Tribunal should eliminate the amount of Rials 82 million included by the Expert in the valuation in respect of the escalation clause on apartments closed prior to 31 January 1980.

108. Coopers & Lybrand considered that, even if the escalation clause was regarded as valid, a reasonable businessman at 31 January 1980 would have been wary of invoking the clause. In their opinion, given the lack of success that Shah Goli had had in applying the escalation clause, the reasonable businessman would have decided that there was too much risk to include any benefit of the escalation clause in his valuation.

b) Price of apartments available for sale or resale

109. Absent the actual sales contracts, the Expert sought to determine the price at which a reasonable businessman would expect that he could sell or resell the available apartments if he were to purchase the Project and complete the construction. As explained in the Report and at the Hearing, the Expert was of the view that a reasonable businessman would consider that prevailing prices for apartments in Tehran in January 1980 were low due to circumstances related to revolutionary "unrest," including certain governmental actions, but that prices were already "on the upturn" and could be expected to continue to rise with the anticipated return of normalcy and in view of the apparent demand for luxury housing in the area. Accordingly, the Expert decided to start from the prices of the most recent sales of Shah Goli apartments before the onset of revolutionary "unrest" and governmental actions. In doing this, he eliminated from the base the sales made in the Fall of 1979 because he considered that their prices were influenced by a number of "extraordinary events" taking place at that time, and that they therefore did not correspond to normal market prices. In order to eliminate the effects of such "extraordinary events," the Expert took as a base sales in the Spring of 1978. These were the last sales before the Fall of 1979 for which he was able to establish actual prices. The Spring 1978 sales were resales

of about 30 apartments made by a "Bulk Buyer" out of 214 apartments he had purchased from Shah Goli. The Expert was of the view that the prices of these sales were "the best available yardstick," and further, that "the risk is higher that those prices are below fair market prices than that they are above."

110. Starting with the April 1978 prices as a base, the Expert's next step was to estimate the extent to which prices would change between that date and October 1980 when, in his view, a reasonable businessman who purchased the Project would sell the available apartments. In this connection, he observed the history of price rises for Shah Goli apartments, noting particularly that the average median prices of apartments in the two sites of the Project had risen 30 percent from November 1975 to April 1978. Most importantly, he considered that Iran had an inflationary economy which resulted in increasing prices, and that, in principle, apartment prices could be expected to rise after 31 January 1980. He considered that the best measure of the inflationary price rises was the Consumer Price Index. His reason for selecting that index, rather than the other indices suggested by the Parties, is discussed in paras. 131-32, infra. In his valuation, the Expert applied a Consumer Price Index rise of 31 percent from April 1978 to October 1980. He explained that this figure was based partly on the actual Consumer Price Index through January 1980 and partly on a forecast of subsequent developments and trends.

111. The Expert summarized as follows the principal factors that he took into account in determining for the purposes of his valuation the apartment prices that a reasonable businessman, acting in January 1980, would expect to receive for sales made in October 1980:

> "I have employed the following line of reasoning as a basis for my subjective assessment of the

hypothetical price level prevailing at the time available apartments are to be sold:

- The prices asked for Shah Goli's apartments increased from November 1975 to April 1978 by approximately 30%.
- During the time thereafter and up to the date of valuation, the prices were affected negatively as a result of the unrest and the Revolution, and also as a result of the various measures and political statements of the new regime.
- It is, however, apparent from available information that apartment prices in general were once again on the upturn on the date of valuation.
- I have made the assumption that Shah Goli's apartments are sold in October 1980.
- I have chosen to relate my subjective assessments concerning the expected price movements to the general price trend as expressed in the Consumer Price Index."

Applying the above-described valuation premises, and reflecting a reserve for unforeseen negative events, the Expert arrived at an average price of Rials 16 million, or $226,000, per apartment as of October 1980. This corresponds to Rials 106,000 per square meter.

112. In addition, the Expert explained that certain subsequent events after January 1980 which could have had an impact on apartment prices (e.g., the U.S. Embassy crisis lasted longer than could have been expected in January 1980; the Iraqi war began; inflation increased more than could be forecast) could not have been foreseen by a reasonable businessman, and therefore the Expert excluded them from his valuation.

113. In answer to questions put to him at the Hearing, the Expert explained that the above-described method of determining the apartment prices to be included in his valuation was his "main line" approach. However, he decided to "cross check" in order to further substantiate the results he had already obtained. In this connection, he requested Mr. Roger Gartoft, an official of the Commercial Section of the Swedish Embassy in Tehran, to provide

information concerning the housing market in Iran in January 1980. Mr. Gartoft's memorandum reported that apartment prices in Tehran at that time varied between Rials 50,000 and 150,000 per square meter, depending on the location and quality of the dwelling. The Expert stated that a comparison between his estimate of the price for Shah Goli apartments in October 1980 and the Gartoft figures would appear to indicate that his estimation "lean[ed] towards the cautious side."

114. The Expert described the Gartoft figures as the only neutral assessment available to him. In principle, the Expert would have placed the price of the Shah Goli apartments in the range of Rials 100,000 to 130,000 per square meter as of 31 January 1980, considering their location and standard of construction. As construction of all of the apartments had not been completed, however, the Expert adjusted the Gartoft figures to a range of Rials 80,000 to 100,000 per square meter as of that date.

115. In order to arrive at the price level as of the estimated time of sales, i.e. October 1980, the Expert applied in his cross check three further factors to the adjusted Gartoft figures for January 1980. First, he estimated that the effects of nationalization and other governmental actions, which according to his premises ought to be eliminated, could be set between 10 and 20 percent of the general price level prevailing in January 1980, as reflected in the Gartoft figures. In this respect, he added 15 percent to the Gartoft figures in his cross checking, in order to eliminate these effects. Second, he assumed that the price trend after the valuation date would follow the general rate of inflation, which he calculated to be 17 percent per year, or 12.75 percent for the period January to October 1980. He therefore further increased the Gartoft figures by 12.75 percent. Third, he deemed it necessary to include a factor for miscalculation risk, which he put at 10

percent of the projected sales income. Applying these three factors to the adjusted Gartoft figures for January 1980, he arrived at a price range of Rials 93,357 to 116,696 per square meter as of October 1980. He, therefore, concluded that the average price of Rials 106,000 per square meter which he had arrived at through his "main line" approach fell within the range indicated by the cross check.

116. The Claimants accepted the Expert's estimate of future apartment prices although they believed that it "reflects undue conservatism." They viewed their previous estimate of the average price ranging between Rials 117,700 and 133,500 per square meter supported not only by the use of the Consumer Price Index, but also by the Gartoft figures. The Claimants also submitted that it is a recognized principle in international judicial practice as well as a generally established appraisal approach, to look at post-valuation date evidence, not as itself reflecting the value, but for its bearing upon the prospective value as of the date of a valuation.

117. The Respondents suggested that the Expert should have used the original prices from the 1975 - 1977 and the Fall 1979 sales in his computation, asserting that the prices would not increase during the remaining Project time. They disagreed with the Expert's conclusions, and asserted that:

> "as a result of the Expert's departure from the reality of the price levels at the valuation date, the expected revenues and, as a result, the value of the project, have been increased by as much as $66.5 million even compared to the original prices which itself could no longer be achieved at 30 January 1980." (footnote omitted)

118. The Respondents, commenting in general, asserted that the valuation model of "fair market value" in its purely economic meaning, which the Parties had commented

upon and had accepted, was abandoned by the Expert in his Draft Report of 19 December 1985. They stated:

> "Moreover, the Expert's decision to take April 1978 as his point of departure has had far reaching implications which would have warranted clarification on the part of the Tribunal. By adopting this date, the Expert has effectively changed the date of the valuation as decided by the Tribunal. In so doing the Expert is in effect deviating from his terms of reference as laid down in the Interlocutory Award, which states that 'The Expert shall give his opinion on the value of Shah Goli as of 31 January, 1980 . . .'"

119. In the Respondents' view, the Expert, in selecting a different date for arriving at apartment prices than was laid down in the Interlocutory Award, also excluded the effects of general policies and other Government acts as well as the effects of the Revolution, confusing these with the effects of the nationalization itself or the anticipation thereof.

120. In this connection, the Respondents asserted that the Alavi Foundation was concerned with sold apartments whose buyers had genuine complaints about delays. They asserted that Shah Goli was not the target of the Government's general policies. In adopting "certain measures towards the housing issue in the country," the Government, exercising its sovereign rights, followed a general housing policy not aimed at luxury apartments or intended to diminish the value of Shah Goli apartments in particular. For example, the Respondents submitted that the Expert misinterpreted the language and spirit of the Rent Control Act of 30 October 1979, which could not have contributed to the decline in property prices. They stated that this Act, which was aimed at reducing the rents of certain categories of dwellings, could not be construed as expropriation of luxury apartments.

121. The Respondents asserted that by applying a 31 percent increase, taken from the Consumer Price Index, to the April 1978 prices, the Expert in fact added back the decline in housing prices that occurred in three different periods: before the establishment of the new Government, after the establishment of the new Government until the middle of 1979, and after October 1979. Thus, "the Expert is not only ignoring the reality of apartment prices at the date fixed for the valuation by the Tribunal, but he is also excluding all the effects of the revolution on prices both before and after the establishment of the new Government. On the top of that, the Expert is also adding 17 percent to April 1978 prices on the assumption that the prices should have gone up to this extent up to January 1980 even though they did not. In effect, the Expert is uplifting the prices by a total of 32 per cent and not 15 per cent he tends to suggest . . . ."

122. The Respondents further submitted that the Expert failed to differentiate between the appointment of Mr. Erfan as Temporary Manager of Shah Goli, which was directly related to Shah Goli, and the general revolutionary atmosphere, which affected all spheres of life and activity in Iran. They also asserted that the Expert changed the date of the valuation in an inconsistent manner when he:

> "adheres, on the [one] hand, to the date of 31st January, 1980 in determining the number of so-called apartment 'releases' but, on the other hand, reverts to April 1978 in order to establish the apartment selling prices. In so doing, the Expert is one moment assuming a situation in which no revolution has taken place (or is even anticipated) and another moment he is recognizing the full effects of the revolution."

123. Concluding their comments on "effects" to be eliminated from the valuation, the Respondents submitted that:

> "[t]he change in the valuation date in one respect, but not in others, is not only against the Expert's Terms of Reference but has also given rise to a major contradiction which can only be removed by either dismissing the issue of 'apartment releases' or else by eliminating the price augmentation applied in the valuation."

124. As far as the general decline of apartment prices from 1978 to 1979 is concerned, the Respondents insisted that the factors that brought about this decline "were largely part of the prevailing conditions in Iran which, due to the upheavals in the country, involved a certain degree of uncertainty," that was inherent in the market. The Respondents saw this confirmed by the price fluctuations as reflected in a number of indices.

125. The Respondents further took issue with the Expert's selecting the price level of the so-called Bulk Buyer sales of April 1978 as his starting point to assess future prices. They argued that the prices of the individual sales pursuant to the Bulk Buyer agreement should not have been relied upon due to the peculiar circumstances surrounding the agreement itself as well as the unrepresentative nature of those prices. Even assuming that the Expert was justified in using those prices as his point of departure, he should have adjusted them downwards by 10 percent to reflect the general decline in property prices which prevailed from April 1978 to December 1979, according to the Home Owners Costs index, instead of adding a total of 31 percent to the April 1978 price to arrive at the apartment prices for October 1980. The Respondents also pointed to reservations expressed by Shah Goli's auditor regarding the Bulk Buyer agreement, including the absence of proper documentation, which prevented him from expressing a conclusive opinion in his report for the year 1977. They argued that only 39 of the 214 apartments subject to the agreement had been resold to individual purchasers, and that 18 of those resales were subsequently cancelled by the

customers. The remaining apartments had been returned to Shah Goli due to difficulties encountered by the Bulk Buyer in selling them. In this connection, they relied on the affidavit of Mr. Raiisdana, which stated that "these deals constituted a very small share of total transactions in this period, and cannot therefore reflect prices prevailing at the time."

126. The Respondents pointed to a number of deficiencies in the Expert's extrapolation of April 1978 prices. In their view, the Expert did not apply the correct method for computation of the price increase up to April 1978. Also, he should not have averaged the median values of the April 1978 prices for the two Project sites. Rather, he should have differentiated between the number of apartments available to be sold in each site because the number of apartments to become available for sale, the original average price and the average price increase are different for the two sites. The Respondents further argued that the Expert wrongly assumed an upward trend in prices after January 1980. There was no reason to believe that the downward trend in prices, as assumed by the Expert, would have been automatically reversed after 31 January 1980; even if this trend was the result of Government measures, it should not have been isolated from the alleged upward trend after that date, but should have been offset by the latter. The Expert should have used the prices on 31 January 1980 as his point of departure and then adjusted these for future movements in property prices. Alternatively, the Expert could have used the actual January 1980 prices and applied half of the increase of the Consumer Price Index, to conform with the relationship between the Shah Goli price increase and the increase in the Consumer Price Index which prevailed from November 1975 to April 1978.

127. Regarding the Expert's exclusion of the impact of certain subsequent events in his forecast of apartment

prices, the Respondents asserted that the outbreak of the Iraqi war and the intensification of the U.S. Embassy crisis could have been foreseen by the reasonable businessman in January 1980, at least on the basis of press reports in 1979. The same applied to the imposition of an economic embargo against Iran by the Government of the United States in connection with that crisis. On this same issue, Coopers & Lybrand were of the view that a reasonable businessman would have considered the reports of a possible coup after the installation of the Bani Sadr Government and that Imam Khomeini was reported to have been hospitalized due to a heart ailment as giving rise to some expectations of a fundamental change in government. Furthermore, there had been clashes with dissident Kurdish troops as well as the threat of war from Iraq. They also referred to a statement in the Gartoft memorandum that "it can hardly be said that an atmosphere of stability prevailed in January 1980, scarcely a year after the revolution", and concluded:

> "Taking these matters into account we believe that Mr. Svensson has been too optimistic about the housing market in Iran at January 1980."

128. The Respondents asserted that the Expert's cross checking exercise contains so many deficiencies and speculations as to render it ineffective. To begin with, Mr. Gartoft's memorandum is heavily qualified in its opening paragraph as follows:

> "It is difficult - not to say impossible - to make a pronouncement today with any degree of precision concerning the situation on the housing market in this country as per January 31, 1980, against the background of a lack of reliable statistics from a period of time when Iran was in the throes of the revolutionary process. Moreover, access to people and experts who were then actively engaged in the construction industry is limited, which does not facilitate an enquiry of this type."

Further, the Respondents contended that the price range of Rials 50,000 to 150,000 per square meter for Tehran was almost impossible to substantiate. They advanced a range of Rials 30,000 to 70,000 per square meter, based on affidavits by experts actively engaged in the housing industry in Tehran at the time. These affidavits attested that the most luxurious and best-equipped apartments in the best areas of Tehran could not have been sold for more than Rials 70,000 per square meter in January 1980. The Expert also chose the wrong average apartment area to calculate his average price per square meter by including the planting terraces to arrive at 233,000 square meters, instead of excluding the terraces to arrive at 224,000 square meters. The Expert did not apply any discounting factor to account for the incomplete status of the Shah Goli buildings at 31 January 1980. The uplift by 15 percent to account for "effects of expropriation" deprived the thus adjusted Gartoft figures of their character as general market prices.

129. Coopers & Lybrand stated that the Expert overestimated the future price of unsold/resold apartments. They considered that a reasonable businessman, recognizing the uncertainties about the future investment climate in Iran on 31 January 1980 and also the recent decline in prices as illustrated by the Home Owners Costs Index, would not have been optimistic about the increase in future apartment prices over the remaining period of the Project. They believed that a realistic estimate of the future average apartment price at the time would have been Rials 12 million, i.e. 20 percent above the average prices pertaining when the apartments were initially available for sale.

130. At the Hearing, Mr. Lemar explained that Coopers & Lybrand's estimate of future revenues was approximately $50 million lower than the Expert's estimate. They estimated that the additional apartments assumed by the Expert to become available for resale accounted for $15 million, that

the uplift of the price for apartments available for resale in order to eliminate the effects that depressed the prices before 31 January 1980 accounted for $27 million, and that the application of the escalation clause accounted for $8 million. After discounting, Coopers & Lybrand's estimate resulted in approximately $38 million less future revenues than the Expert's estimate.

6. Indices

131. As explained above, the Expert's "main line" approach in assessing the price level of Shah Goli apartments as of the estimated sales date was to apply an inflation rate to the April 1978 prices. See supra para. 110. The Expert explained that he "relate[d his] subjective assessments concerning the expected price increase to the general price trend as expressed in the Consumer Price Index." He concluded that apartment prices would increase at approximately the same rate as the Consumer Price Index, and in this manner he sought to eliminate the negative effects of Government actions on price levels in the housing market. The Expert chose to "apply this index as the best available yardstick by which to evaluate the erosion of the purchasing power which afflicts an inflated economy," such as Iran's. In this context, he pointed to a document entitled "Note on Sources of Economic Data and Financial Statistics in Iran" which was contained in a Statement of Opinion, which is not before the Tribunal, given to him by Mr. Manochehr Farhang, one of the experts consulted by the Expert. This Note, according to the Expert, stated that a report prepared by the Economic Statistics Department of the Central Bank of Iran referred to the Consumer Price Index as "[t]he most significant measure to be used in . . . bilateral agreements and international legal disputes." The Expert calculated a Consumer Price Index rise of 31 percent from April 1978 to October 1980, based partly on information

on the actual outcome and partly on a forecast of subsequent trends and developments.

132. Before deciding to use the Consumer Price Index in his valuation, the Expert studied price trends in Iran according to different indices, based on official statistics. He considered two other indices, since each of the Parties had suggested during the valuation proceedings one of these as better reflecting the changes in apartment prices. The Claimants proposed the rental component of the Housing Price Index, while the Respondents proposed the Home Owners Costs Index. The Expert explained that his choice of the Consumer Price Index, 15 percent of which is accounted for by the Home Owners Costs Index, was largely due to the fact that, compared to the other indices, it was less affected by the events whose effects he had to eliminate according to his preconditions. Moreover, although the Home Owners Costs Index showed a greater decline, in general, of the prices before the valuation date, the Expert's assessment was that the apartment market subsequently showed an upward turn, which had already been reflected in the Consumer Price Index. In the Expert's final analysis all other specialized indices would have been far more open to criticism than was directed against his use of the Consumer Price Index.

133. The Claimants accepted the Expert's use of the Consumer Price Index.

134. The Respondents asserted that the Home Owners Costs Index reflected more accurately the actual housing market which started to decline in 1978. By applying a Consumer Price Index rise of 31 percent for the period starting April 1978, the Expert added back the decline of prices in three periods up to the valuation date, contrary to his own basic premise of not excluding the effects of the

Revolution on prices both before and after the establishment of the new Government.

135. The Respondents pointed out that even the Expert's own figures showed that between November 1975 and April 1978 the percentage increase in the Consumer Price Index never matched the increase in Shah Goli apartment prices, but was twice as much (63 percent) as the increase in Shah Goli prices (30 percent). Therefore, the most optimistic expectation could not have been for any higher increase than 15 percent indicated by that relation.

136. Coopers & Lybrand also stated in this connection that "the index of home owners costs, which although not in itself perfect, is more relevant for reflecting the movements in house prices." Further, from their review of Bank Markazi Bulletins on price trends for the period 1976-1980, they concluded that "the basic prices of the apartments would be similar in January 1980 to those prevailing in 1976-1977." At the Hearing, Mr. Chilvers repeated that it was inappropriate to use the Consumer Price Index, which was only a general index, to determine trends in the housing market. Similarly, Mr. Raiisdana stated in his affidavit as well as at the Hearing that due to the general nature of the Consumer Price Index, which represents only an average of all price trends some components of which may be moving in opposite directions, it was the better (and the usual) practice for investors in a given sector to use the index for that sector, in this case the Home Owners Costs Index, which relates directly to the cost of housing.

7. Extra parking spaces

137. The Expert also considered whether there would be any extra parking spaces in the two basements of the buildings of the Project (i.e., any parking spaces not

assigned to apartment owners), and, if so, how such extra parking spaces would affect the future revenue of the Project. In this regard, the Expert addressed three basic questions: (i) would extra parking spaces be available for sale, (ii) if so, what was the number of such extra parking spaces, and (iii) what was the price of such extra parking spaces. The Expert concluded that all extra parking spaces would be available for sale; however, he referred this issue to the Tribunal for decision. Based on Shah Goli's summary of revenues and list of 99 closings that showed that four "extra parking spaces" had been sold by the Claimants, the Expert concluded that parking spaces had actually been sold before the valuation date. He also concluded from the Respondents' translation of the standard purchase agreement submitted to him by the Claimants that extra parking spaces would be available for sale.

138. Having had no access to the original sales contracts (see supra para. 100), and in the absence of information from the Respondents which he repeatedly requested in order to ascertain the availability of such parking spaces, the Expert derived the number of extra parking spaces from a statistical summary that was used by Mr. Radice and Mr. Neghabat for their calculations in 1979. Each apartment being assigned one parking space, the Expert arrived at a total figure of 433 extra parking spaces available for sale. This took into account his view that outside the buildings parking spaces were available for guests.

139. The Expert stated that he could not take into account a letter of 20 February 1986 from the Tehran municipality to Shah Goli, concerning the application of regulations on the required number of parking spaces in residential complexes, because it had been submitted too late.

140. According to the Expert the documentation about prices for extra parking spaces had been "very limited." He only found an indication about actual prices in Shah Goli's list of closings, which showed four sales of extra parking spaces in November and December 1979 for Rials 400,000 each. However, in the translation of the standard purchase agreement submitted to him by the Respondents, the price for parking spaces was stated as Rials 490,000 each. He therefore used the Rials 490,000 price as the sales price of parking spaces. As to the dispute about the applicability of the standard purchase agreement from which the Expert derived this price, he stated at the Hearing that he presumed that this was a version on which both Parties had agreed, since the Claimants had submitted it to him in Farsi and the Respondents had provided him with an English translation thereof.

141. According to the Respondents, the Expert's decision on extra parking spaces "hinges upon a 'distorted' incompatible English and Farsi format of so-called 'standard apartment sale agreement' submitted to the Tribunal by the Claimants." In order to provide an undistorted English version, the Respondents submitted to the Expert "an official translation" of the Farsi version of the purchase agreement which the Claimants had filed. From this translation it appeared that there were major differences between the Claimants' Farsi version and the English version they had submitted, as well as between those two versions and the actual contracts. Whereas the Respondents argued that they never suggested that any of those versions was reliable, the Expert relied on the Respondents' English translation as if it had been submitted by them as "their" text of the standard purchase agreement actually used. The Respondents insisted, however, that the Expert should have based his decision on "actual contracts," copies of which they had produced to the Expert. Even when one compares the Respondents' English translation of the Farsi version

submitted by the Claimants with the English version submitted by the Claimants, the Respondents submitted, one finds that the sentence about "additional parking spaces" being available for sale, on which the Expert relies, does not appear in the English version submitted by the Claimants. Considering these discrepancies, the Respondents not only objected to the Expert's price per parking space, which he derived from that particular purchase agreement, but were also of the opinion that the Expert's assumption of extra parking spaces being available for sale cannot be based on such an inconclusive basis.

142. The Respondents further argued that individual sales of parking spaces are not legally possible because they are part of the "common area" and under Iranian law cannot be sold to individual buyers. Therefore, in the Respondents' opinion the Claimants' sale of four parking spaces in 1979 was illegal. In this context, they noted that the Expert's allocation of one parking space per apartment unit was not only in contradiction to the purchase agreements, but also violated pertinent Tehran municipality regulations. They argued that, in any event, there could only be 20 extra parking spaces available rather than the 433 that the Expert suggests.

143. The Respondents also argued that any extra parking spaces could only have been allocated within the respective building, because the Project did not provide for any spaces in the vicinity for guests, and that no revenue from extra parking spaces was included in the Claimants' or Mr. Neghabat's forecasts. They asserted that, in any case, proceeds from sales of extra parking spaces could only be collected on the same basis as the collection of proceeds from the apartment sales, rather than at the time of sale in October 1980, as assumed by the Expert (i.e., that 30 percent of the base price would be paid in cash upon signing of purchase agreement; 14 percent would be paid through 24

monthly promissory notes; and 56 percent would be paid upon delivery of the apartment, together with escalation). They stated in this regard, that "[h]ad the Expert adopted the same assumption as receiving the remaining sale price of apartments upon their completion, the net present value of the Project would have been reduced by approximately $400,000 in this regard alone." With regard to the price of those parking spaces, they asserted that the Expert used an unsigned blank form containing a price which was not agreed upon with any particular customer. They therefore requested the Tribunal to eliminate any income from parking spaces from the valuation.

144. Coopers & Lybrand confirmed the points raised by the Respondents and believed that given the circumstances, a reasonable businessman would have excluded any potential revenue from the sale of extra parking spaces from his revenue forecasts. They also stated that, in view of the past delays in completing the Project, a buyer would be unwilling to commit himself until it was clear that the Project would be completed. Any revenue from the sale of parking spaces should therefore be included at a later date in the cash flow streams for the realization of apartment revenues.

8. Heavy duty construction equipment

145. With regard to the heavy duty construction equipment, the Expert concluded that the equipment in question belonged to Shah Goli. The Parties did not dispute this. The Expert then reviewed the Parties' comments on his original assessment of the value of that equipment. While noting great differences in the Parties' views on this item, the Expert determined that the equipment would be sold for Rials 122 million in January 1982 at the end of the estimated construction period.

146. The Respondents regarded the Expert's figure for the value of the construction equipment as too high, due to lack of proper maintenance of the equipment and the low demand for it resulting form the lack of construction of high-rise buildings in Tehran. Further, on the basis of the Radice/Neghabat estimate of completion time, they asserted that the date of the sale of such equipment would be 12 months later (i.e., January 1983) than that assumed by the Expert. They therefore asked the Tribunal to "adjust the Expert's assessment in this regard."

9. Summary

147. The Expert calculated that future revenues would total Rials 14,804 million, consisting of:

	(Rials million)
Remaining revenues from contracted apartments	4,451
Revenues from sale of free apartments	2,768
Revenues from resale of cancelled apartments	9,600
Repayment for cancelled apartments less uncollected notes receivables	(2,349)
Revenues from sale of extra parking spaces	212
Sale of equipment	122
	14,804

148. The Respondents estimated future revenue at Rials 9,134 million. Coopers and Lybrand estimated that future revenue would total Rials 10,414 million, consisting of:

	(Rials million)
Remaining revenue from contracted apartments	4,950
Revenue from sale of free apartments	2,076

Revenue from resale of cancelled apartments	4,716
Repayments for cancelled apartments	(1,450)
Revenue from sale of extra parking spaces	0
Revenue from sale of equipment	122
	10,414

IX. Remaining Costs

149. As the next step in determining the Project's fair market value, the Expert estimated the remaining costs of the Project.

1. The Expert's approach

150. The Expert stated that in estimating the Project's remaining costs "[t]he lack of reliable and relevant information and the difficulties to obtain certain essential documents have drastically affected my way of evaluating the project." He felt "obliged to establish that the Parties have not, in essential respects, provided me with such original documents as would have been able to constitute a reliable point of departure for my assessments of the remaining costs as per Jan. 31, 1980, despite the fact that it is, in my opinion, obvious that such documents should be made available."

151. In particular, despite the Expert's repeated requests, the Respondents did not make available the estimate of remaining revenues and costs that he believed had been made by Mr. Erfan, Shah Goli's Temporary Manager appointed by the Ministry of Housing in January 1980. Instead, the Respondents, as well as the Claimants, submitted other projections of remaining costs to the Expert. The Expert, however, felt that each Party's cost

projections raised problems of verification, reliability, and conformity to his valuation premises. Thus, the Expert informed the Parties in preparation for a meeting in August 1985 that:

> "the following methodology, given the circumstances, was planned to be used:
>
> - The cost would be assessed trade by trade.
>
> - If the Parties were in agreement, this amount would be employed.
>
> - If the Parties were not in agreement, an attempt would be made to verify the Parties' statements, int. al. by an analysis of contracts with subcontractors and suppliers. However, these contracts would only be assumed to be valid on the date of valuation if a Party had been able to substantiate this assertion.
>
> - If verification would not be possible, an examination would be effected of the Parties' statements according to such criteria as objectivity, validity and relevance.
>
> - If the above-mentioned examination would not lead to a satisfactory result, Radice/Neghabat's estimate from Sept. 1979 would be used as a point of departure for the final prognosis. Necessary adjustments would be carried out on the basis of available relevant information."

152. After reviewing the information submitted to him by both Parties, the Expert concluded that he would not be able to use such information due, inter alia, to their lack of "objectivity, validity and relevance." In particular, the Expert was unable to verify whether and to what extent Shah Goli had been able to bind subcontractors and suppliers with fixed price contracts that were valid on the date of valuation. The Expert considered this significant because, if the subcontractors and suppliers were not so bound, the costs would be higher due to inflation.

153. Thus, in accordance with his methodology quoted immediately above, the Expert concluded that "the most reliable point of departure for my calculations has been the Radice/Neghabat calculations from the Summer and Autumn of 1979." The Expert based this conclusion on several grounds. He first noted that "Mr. Neghabat made his estimate on the commission of Alavi Foundation in conjunction with Shah Goli's application for financial support so as to complete its Project." Furthermore, Mr. Neghabat based his estimate on information from Mr. Davis, the representative of the Claimants in Tehran and managing director of Shah Goli at the time. Apparently having worked from June to September 1979, Mr. Neghabat produced a work schedule and a cash flow analysis. His final forecast was dated 4 September 1979 and was approved by Mr. Davis. According to the Expert, Mr. Neghabat's estimate, after certain adjustments, was the same as a 27 July 1979 cost estimate prepared by Mr. Radice, Shah Goli's manager at the time. Despite minor uncertainties as to Mr. Neghabat's estimate, the Expert concluded that:

> "the assessments of the Project which have been put into expression in Mr. Neghabat's work schedule and cash flow analysis were, in principle, current even in January 1980, although they were dated September 1979. Consequently, Mr. Neghabat's projection is the most updated assessment of the remaining costs of the Project in January 1980. Since it has been worked out, checked, and approved by both Starrett and Mr. Neghabat representing Alavi Foundation and Bank Omran, I find it to be the most reliable projection which has been made available to me from this time."

154. The Respondents argued that when the Expert set out, in October 1984, to establish the remaining construction costs on a trade by trade basis, and requested them to furnish him with estimates allegedly made by Mr. Erfan, they informed him that no attempt had been made at that time to update or otherwise establish the remaining costs. They thus denied having refused to provide the

Expert with any such estimates. They asserted that they provided the Expert with all the information he had asked for insofar as the facts and records up to the valuation date are concerned, and that the shortcomings in the Claimants' back-up materials for their own projections were compensated for by the extensive information provided by the Respondents on cost ledgers, sub-contracts, and on the matching of sub-contracts with different construction trades.

155. The Respondents described the documentation they had provided the Expert at different points in time concerning construction costs, particularly: (i) their cost estimates of 22 February 1985, which had been based on "substantive documents, records and evidences [which] have either been provided to you or are available at Shah Goli for your inspection"; (ii) their cost estimates of 1 August 1985 which dealt with taxes, municipal levies, and other additional items; (iii) full texts of sub-contracts many of which had been copied by the Expert's colleagues on their visit to Tehran in November-December 1984; (iv) documents submitted at the Malmö meeting of August 1985; and finally, (v) documents submitted in October 1985, which included their amended cost calculations. Throughout this process, the Respondents asserted, they reiterated their invitation to the Expert to visit Tehran for the purpose of inspecting the originals of back-up documents which formed the basis of their various submissions, because those back-up documents were voluminous and they had only been able to copy samples of them for submission.

156. The Respondents further asserted that the information they provided the Expert was sufficient to enable him to perform the trade by trade verification of construction costs that he undertook to do, but that he abandoned that approach mainly because of the Claimants' "attempts to steer the Expert away from his previously

selected course," as well as for the complexity of information and verification problems cited by him. They asserted that the Expert's abandonment of the trade by trade analysis for the reasons he cited "is an unacceptable approach to be adopted on the part of the Expert who was assigned by the Tribunal exactly for the purpose of making an assessment in view of these complexities and not for ignoring them." Finally, the Respondents objected to the Expert's treatment of the Radice/Neghabat estimate which he preferred to use as his point of departure, pointing to a number of incorrect assumptions made by the Expert in this connection. See infra paras. 159-71.

157. Coopers & Lybrand confirmed the Respondents' argument that the Expert had not taken sufficient account of weaknesses in the Radice/Neghabat cost projections. Pointing to the fact that the Radice/Neghabat figures were not up to date as at January 1980 and had indeed been criticized by Mr. Davis who had replaced Mr. Radice as the Claimants' representative in Iran, they stated that a reasonable businessman would have had to make suitable adjustments to those projections to cover the risk of errors in the forecasts as well as for inflation and other costs.

2. Land cost

158. In estimating the Project's remaining costs, the Expert first calculated the Project's "land cost." Land cost consisted of amortization of the debt owed the Alavi Foundation from whom the land had been purchased and compensation for Bank Omran's services in relation to the land purchase and the Project. Based on the provisions of the Basic Project Agreement and an adjustment in his projection of cost to complete, the Expert calculated that land cost amounted to Rials 2,248 million.

3. Construction costs

159. As described above, the Expert based his estimate of the Project's construction costs on Mr. Neghabat's estimate. Assuming that due accounts, customs, freight and storage costs had not been counted twice, he made four adjustments to Mr. Neghabat's estimate. First, the Expert assumed that "Mr. Neghabat must reasonably have taken account of the inflation which, on the preparation of the projection, was expected during the calculated Project time." The Expert interpreted Mr. Neghabat's statement in 1982 that "the inflation index [had] not been taken into account" as referring only to the inflation which occurred during the period from September 1979 to January 1980, after the forecast had been drawn up. The Expert found it "unreasonable to assume that Mr. Neghabat submitted a costs projection and cash flow analysis to his principal which contained conscious underestimation of the costs." However, in view of the change in the expectations concerning inflationary trends after January 1980, he increased Mr. Neghabat's estimate of remaining cash construction costs by 15 percent from September 1979 through January 1980.

160. Second, as a contingency reserve for unforeseen cost increases, or miscalculation risk, the Expert adjusted Mr. Neghabat's calculation upward by 3 percent.

161. Third, for guarantee costs, which Shah Goli would be obliged to bear according to the apartment purchase agreements, the Expert made an upward adjustment of 5 percent.

162. Finally, for remobilization costs, the Expert estimated a monthly figure approximately corresponding to the amount spent during construction activity in August 1979.

163. The Expert employed a distribution model for construction costs whereby 9 months are estimated for remobilization time, 15 months for construction time (full operation), and 12 months for guarantee time, i.e., until Shah Goli's guarantee to apartment purchasers would expire. The total calculated time for completing the Project was thus 36 months. Realizing that this constituted a simplification of typical construction practice, the Expert was nevertheless satisfied that the difference in influence on Shah Goli's value as compared with a more sophisticated distribution model, for which he lacked the necessary information, "is negligible in particular in comparison with other factors which have an influence on this value." The Expert emphasized the impact that the completion period as such had on the other factors assessed in the valuation.

164. In view of the fact that certain goods or services would need to be imported, the Expert presupposed that Mr. Neghabat took into account the risk of fluctuations in the rate of exchange when he assessed the remaining costs of the Project. By increasing Mr. Neghabat's cost estimate by 15 percent as mentioned above, the Expert also considered that he had taken into account expected changes in the exchange rate after January 1980. The Expert's estimate of remaining construction costs, including costs of remobilization and guarantee costs, as per 31 January 1980 thus totalled Rials 5,488 million.

165. The Respondents contended that the Radice/Neghabat estimate was drawn up in the particular circumstances of Shah Goli's application for financial support, and that it was subsequently criticized by Mr. Davis as substantially understated, despite his initial approval of those estimates. They pointed to a "Speedgram" which Mr. Davis sent to the Claimants' head office in New York on 31 October 1979, in which he stated, inter alia:

> "I am concerned about the overall estimate to complete the Project. Radice indicates that $88.2 million was spent to date for construction with [$] 54.6 [m] to spend. This means he has spent 62% and I believe the Project is not more than 50% complete and to make matters worse I expect the costs will increase over the next 2½ years."

166. The Respondents cited the Expert's lack of consideration of these facts as a reason why they "feel there is a considerable gap in the Expert's investigations in this regard which need to be bridged by the Tribunal by making necessary adjustments to the cost estimate arrived at by the Expert." They discussed a number of specific cost items which should be included or adjusted in this regard (see following subsections).

167. The Respondents asserted that even in September 1979 Mr. Neghabat's cash-flow analysis indicated that Shah Goli was a "loss-maker." Similarly, Mr. Radice's estimates of 27 July 1979, as well as Mr. Bayat's audit of Shah Goli's accounts for 1978, had forecast losses for the Company.

168. Furthermore, the Respondents asserted that when adjusting Mr. Neghabat's estimate, the Expert did not sufficiently account for additional inflation. They submitted that Mr. Neghabat had clearly stated in his affidavit and oral testimony before the Tribunal that he did not take account of inflation to any extent, and further, that:

> "[t]he Expert's failure to adequately tackle this issue has resulted in a fundamental gap in his assessment amounting to an understatement of cost by as much as Rls. 3546 million (or $50 million). The size of this gap calls for serious reconsideration of the Expert's assessment by the Tribunal. This issue assumes further significance if the Tribunal also takes into account the fact that the Projection given to Neghabat was based on certain sub-contracts which were no longer valid at the valuation date".

169. The Respondents also asserted that one could not use the Radice/Neghabat estimates without, first of all, adopting a clear position on the validity of the subcontracts upon which they were based — an issue on which the Expert had been unable to form an opinion and had referred to the Tribunal. Second, it was also illogical to adopt those estimates and at the same time ignore the construction schedule on which they were based. Thus, the Expert's "mov[ing] away from the 27-month construction time included in the so-called Radice/Neghabat estimate (which is the cornerstone of his model)" to 15 months demonstrated an inconsistent and contradictory approach. The Respondents regarded the Expert's estimate of remaining construction time as too low, considering much higher estimates submitted by senior Starrett personnel in 1979.

170. Coopers & Lybrand opined that the Expert's basic cost estimates should be uplifted by an additional construction risk premium, which they estimated should be at least 27.5 percent. Like the Expert, they assumed that the construction period would recommence in October 1980, but unlike the Expert they considered the construction period to be at least 24 months, not 15 months. Coopers & Lybrand agreed that it would have been wrong for Mr. Neghabat to have ignored inflation, but they were not convinced that he ignored only September 1979 to January 1980 but included inflation for the period thereafter. They considered that the Expert was wrong to draw such an important conclusion without further evidence. Given the impact that inflation would have had on the cost estimates, they believed that a reasonable businessman would have also uplifted the cost estimate for his perception of future inflation for the period after January 1980.

171. At the Hearing, Mr. Chilvers stated that comparing the cost of Rials 9,000 million incurred for 5 years up to the valuation date with the percentage of completion (50-60

percent) by that date, it would require a further amount of Rials 6,000 million to 9,000 million, plus inflation, to complete the Project. Even using the lesser of these two figures on the assumption that the Project was 60 percent complete, that amount, equivalent to $85 million, compares "woefully" with the amount allowed by the Expert. It was thus "derisory" for the Expert to have added only 3 percent to the Neghabat estimate of Rials 4,500 million (approximately $65 million). Rather, in his estimation, an amount of $17 million must be added to the Neghabat estimate of completion costs.

4. General and administrative costs

172. With respect to general and administrative costs ("G&A" costs), the Expert did not accept either Party's projection because of the accounting methods they had followed in calculating those costs. In particular, some G&A costs had been booked in Shah Goli's accounts, while others had been shown in Starrett Housing's accounts in the United States without corresponding notes in Shah Goli's accounts. The Expert therefore calculated such costs as follows. He first assumed that G&A costs had been incurred by the Claimants in the United States and would, to some extent, continue to be incurred in Iran by the new owner of the Project. He next assumed that inflation would affect costs to a greater degree after the valuation date. Based on these two assumptions, he then made an estimate of G&A costs during a "normal" working month. To estimate such costs during the construction period, he adjusted this monthly figure for cost increases. To estimate such costs for the remobilization and guarantee periods, he halved this monthly figure. Based on these calculations, the Expert determined that G&A costs totalled Rials 108 million.

173. The Respondents requested the Tribunal to make necessary adjustments to the Expert's estimate of Shah

Goli's G&A costs. To begin with, they asserted that the United States expenditures of Starrett's four subsidiaries in Iran should be offset against Starrett's fees, instead of being charged against Shah Goli. They referred to previous submissions to the Expert in which they suggested that he adopt a "time-related" or "direct construction-cost related" method of determining the G&A costs. They asserted that the Expert's estimate in this regard failed to take account of an appropriate completion period as well as an appropriate level of inflation. Instead, they suggested an estimate based on an average monthly G&A cost of $102,500 prior to the valuation date, uplifted by 106 percent for inflation, and applied to a construction period of 27, 30 or 36 months (as estimated by Radice, Davis and Johnson respectively). They stated that this yielded an amount of $5.7 million, $6.4 million and $7.6 million respectively.

174. Coopers & Lybrand stated that an amount of $540,000 should be added to the Expert's estimate of G&A costs, i.e., nine additional months of construction time at $60,000 per month.

5. Closing costs and utility charges

175. Under the heading "closing costs," the Expert treated costs which, pursuant to the purchase agreements, would arise in conjunction with the delivery of apartments. On the basis of the information made available to him, the Expert decided to use a standard purchase agreement submitted by the Respondents to determine who was to bear such costs. From the text of this purchase agreement, the Expert concluded that Shah Goli was, in principle, to bear all taxes in connection with the closing of an apartment. This also includes subdivision charges, which, according to the Expert, "have in principle been treated as taxes which are to be paid by the seller." The Expert calculated that in

total the closing costs, including notary charges, would aggregate Rials 441 million.

176. The Expert stated that as to utility charges (i.e., connection charges for water, electricity, telephone, sewerage and gas supply), the available information did not provide sufficient guidance to decide which of the Parties' divergent views on this item was correct. He therefore did not include any costs for utility charges in his cost projection. The Expert explicitly submitted these positions to the Tribunal for consideration and ruling.

177. The Claimants concurred with the Expert's estimation of closing costs. At the Hearing, they asserted that none of the apartment purchase agreements imposed utility charges on Shah Goli. In their view, the Minutes of a meeting of Shah Goli's board of directors on 8 August 1978 showed that at that time the company in fact expected to collect those charges from the apartment purchasers.

178. The Respondents submitted that various cost estimates made by Shah Goli under the Claimants' management, including the "Specifications for Zomorod" signed by Mr. Benach in 1976, demonstrated that Shah Goli was to bear utility charges. Mr. Radice's cost estimates of March 1979 had included an amount of $4.7 million for utility charges, which, as they had set forth in their February 1985 submission of Estimated Total Cost, should be increased to $10.9 million (Rials 767 million). They also asserted that a letter from Mr. Azarnia to Mr. Radice dated 5 July 1978 had warned that the collection of escalation and utility charges "will be a mammoth task in its own, as the buyers don't expect such additional charges", and further that a memorandum from Mr. Hovanessian (then Sales and Marketing Manager of Shah Goli) to Mr. Radice and Mr. Bleecker, dated 14 July 1979, had stated that the apartment purchase agreements did not provide for the payment of utility

charges by the buyers. Finally, they pointed out that the utility charges for the apartments already closed before the valuation date were paid by Shah Goli, and that this contradicts the Expert's position that the available information was inconclusive as to who was to bear those charges.

179. The Respondents also disagreed with the Expert's interpretation and application of Article 10 of the apartment purchase agreements, regarding the "other expenses" applicable to the conveyance and payable by the purchaser, to cover the utility charges. They argued that utility charges would be incurred long before the conveyance and would be paid to the water, electricity, and telephone authorities rather than to the Notary Public.

180. Coopers & Lybrand also argued that the Expert should have recognized an amount of Rials 515.38 million ($4.7 million estimated by Mr. Radice in March 1979, plus Rials 184 million for telephone lines) for utility charges, because "we have been advised that in Iran such charges are normally borne by the seller." They pointed out that this was in fact recognized by Starrett in May 1978.

6. Sales expenses

181. The Expert concluded that Shah Goli's agreements with the Azarnia companies concerning a sales fee of 8.25 percent "must be considered as having ceased to be valid at the latest on the date of valuation;" however, he referred this to the Tribunal for decision. Consequently, the Expert did not recognize the Azarnia fees in respect of the post-valuation period. Rather, he considered that the fair market value of the sales services that would have been rendered would be 2 percent of cash revenue on sales of apartments and parking spaces after the valuation date. The Expert determined that the 2 percent sales fee would,

pursuant to the Apartment Purchase Agreements, be recovered by deduction from refunds due to the former purchasers of the apartments available for resale. Considering that Shah Goli (or the reasonable businessman) would incur this cost as a sales expense for that period, he calculated the total amount at Rials 294 million.

182. The Respondents objected to the Expert's termination of the Azarnia contracts for the sales expenses and related services, as to which Azarnia was to be paid 8.25 percent of sales proceeds throughout the Project. They therefore requested the Tribunal to recognize Azarnia fees on future proceeds from apartments sold as at 31 January 1980, as well as from those sold after that date.

7. Developer's costs

183. The Expert concluded that Shah Goli's contract with Starrett Construction would cease to be valid as of 31 January 1980. To calculate developer's costs beyond this date, the Expert first rejected both Parties' estimations because they were not in accordance with his valuation premises. Instead, he based his calculation on the Radice/Neghabat projection for developer's costs. The Expert adjusted this projection on a monthly basis by 15 percent for expected cost increases. This amount was then charged to the Project for the 24 months subsequent to the valuation date. The Expert thus estimated that developer's costs would total Rials 110 million.

184. The Respondents objected to the Expert's assessment of developer's costs for the post-valuation period. They argued that the Expert's asssessment failed to take account of an appropriate completion period as well as an appropriate level of inflation. Instead, they suggested an estimate based on Radice/Neghabat's estimate of $55,328 monthly developer's costs, uplifted by 106 percent for

inflation, and applied to a completion period of 27, 30 or 36 months (as estimated by Radice, Davis and Johnson respectively). This yielded an amount of approximately $3 million, $3.4 million, and $ 4.1 million respectively.

185. Coopers & Lybrand stated that the Expert included a cost item of $65,000 per month "to cover developers' costs for architects, soil testing, legal fees, audit and insurance." However, they believed that "an additional U.S. $585,000 should be included for the extra nine months of construction which . . . will be necessary to complete the project."

8. Other cost items discussed by the Respondents

186. The Respondents asserted that the Expert disregarded various cost items, including certain requirements of Iranian law and regulations, in the valuation of Shah Goli. A number of these items are discussed under the Respondents' requests concerning adjustments to Shah Goli's Trial Balance as at 31 January 1980 (see supra paras. 55-76), some of which also entail future costs for the completion of the Project. The Respondents made the following requests with regard to the remaining items under this heading:

a) Municipality renovation levies, Barren Land Tax, and penalty for lack of building permit for site 1175:

187. In addition to the accrued cost as at 31 January 1980, the Tribunal should recognize the future cost in respect of these items, amounting to Rials 237,721,249.

b) Bank Omran's collection fee:

188. The Tribunal should recognize a future collection fee of 1.5 percent amounting to Rials 120 million due to Bank Omran under Article 8(h) of the Basic Project Agreement, in connection with the collection of customers' Promissory Notes.

9. Distribution of remaining costs in time

189. The Expert stated that there was a mutual relationship in the Project between revenues and costs and their distribution in time. In this regard, he stated that "costs which are contractually dependent upon revenues involve no investigatory problems. In cases where grounds for distribution are absent, I have made my own assumptions." He then determined for each remaining cost item the time within which it would be distributed.

190. The Respondents objected to the Expert's distribution of costs over time. They asserted that the Expert's distribution model contained gross inconsistencies and did not reflect the actual costs incurred at given stages of the projected completion period. For instance, while the Expert assumed that buildings 1 and 2 would be completed in the remobilization period, they argued that he did not allocate the corresponding construction or completion costs to that period, but rather to the subsequent periods. Furthermore, they asserted, his monthly distribution of direct construction costs over the completion period was inconsistent with the Radice/Neghabat estimate which he otherwise relied upon. The Expert also adopted the Claimants' over-optimistic distribution model to the detriment of the Respondents. The Expert's method has thus resulted in an overstatement of the Project's net present value, which the Respondents requested the Tribunal to reject.

191. Coopers & Lybrand also disagreed with the Expert's timing of revenues and costs. They stated that given the uncertain conditions and the Project's history of delays, Shah Goli would be unlikely to be able to sell any more apartments until they were completed, that is, at a substantially later date than that assumed by the Expert. With regard to costs, they stated that "[h]ad he allowed a more realistic completion time, costs would have been correspondingly greater."

10. Summary

192. The Expert calculated that remaining costs would thus total Rials 8,689 million, consisting of:

	(Rials million)
Land Cost	2,248
Construction costs	4,924
Remobilization costs	318
Guaranty costs	246
G&A costs	108
Closing costs	441
Sales expenses	294
Developer's costs	110
	8,689

193. The Respondents disputed the Expert's estimation of remaining costs. According to their revised estimate of remaining costs, these costs would total Rials 27,586 million.

X. The Project's Fair Market Value

194. Having thus calculated the Project's future revenues (see supra Section A.VIII) and remaining costs (see supra Section A.IX), and in accordance with his valuation method for determining the Project's fair market value (see supra Section A.V), the Expert next calculated the discount rate to be applied to the Project's projected revenues and costs. The application of this discount rate to the Project's revenues and costs would, in accordance with the Discounted Cash Flow method of valuation employed by the Expert (see supra Section A.V), yield the Project's fair market value as of 31 January 1980.

1. The discount rate

195. According to the Expert, a discount rate would be applied by a reasonable businessman in order to account for three basic items: (i) the rate of inflation, (ii) the rate of real interest, and (iii) the rate of risk. With respect to the rate of inflation, the Expert tried to estimate the expected rate of inflation in Iran since he assumed in his valuation that the Project would be purchased in Rials and that any surplus would be repaid in Rials. In order to determine this rate, the Expert used as a basis the official Consumer Price Index which, as discussed above, he regarded "as the best available yardstick by which to evaluate the erosion of the purchasing power which afflicts an inflated economy." He then made certain assumptions regarding expectations of inflation in Iran in January 1980, including, inter alia, that actual statistics regarding inflation after the valuation date had no importance for the estimate; that up to the valuation date conditions in Iran had no appreciable effect on the yearly indices of general prices and the rate of interest; and that a reasonable businessman would expect a higher level of inflation in Iran in 1980-1981 than that prevailing in 1978-1979. Also, the

Expert eliminated subsequent political events and their effects, which caused inflation actually to rise at approximately 25 percent, from his estimation because they would not have been reasonably foreseeable on the valuation date. Based on the above, the Expert estimated that the expected rate of inflation for the two years following the valuation date would be 17 percent.

196. Next, the Expert decided to express the rate of real interest and the rate of risk as a single value. With respect to the rate of real interest, the Expert explained that this rate reflected the value of money taking into account inflation. He concluded that "[i]n Iran the real interest rates were negative for money held at banks in January 1980." With respect to the rate of risk, the Expert decided that this rate would only cover the risk of forecasted cash flows being wrong. He felt that it was unnecessary to cover all other risks in the discount rate because these other risks were taken into account in his calculations of the Project's revenues, costs, and remaining project time. The Expert determined that together the rate of real interest and rate of risk amounted to 11 percent. The Expert pointed out, however, that this percentage would be higher if it were found, contrary to his opinion, that a reasonable businessman could not rely on the force majeure clause of the Basic Project Agreement.

197. Thus, combining the rate of inflation (17 percent) with the rate of real interest and the rate of risk (11 percent), the Expert calculated the discount rate to be 28 percent.

198. The Respondents regarded the discount rate of 28 percent as too low "[c]onsidering the prevailing situation of 30 January, 1980." They asserted that a potential buyer of the Project "would have [required] an extremely high rate of return as a sensible businessman does when he faces such

considerable risks and uncertainties as those prevailing at the valuation date." Given the technical nature of the issue, they "rely on the views of Coopers & Lybrand and Dr. Raiis Dana and request the Tribunal to adjust the discount rate applied in the valuation accordingly."

199. Coopers & Lybrand asserted that the risk of cash flow forecasts being wrong should have been dealt with in the forecasts themselves rather than in the discount rate; the latter method, which was adopted by the Expert, had the effect of lowering some of the net costs. In their opinion, the forecast costs and revenue streams should first be adjusted to take account of the risk that there are errors in them and only then discounted back to net present value. While expressing general agreement with the Expert's discount rate, they stated however that the 8 percent which they believed the Expert allows for the risk of errors in the projections, fluctuations in exchange rates, and political risk, was too low to cover all those factors. They stated instead that "it is essential to add 10% for political risk alone." They therefore suggested an overall discount rate of 30 percent. At the Hearing, they explained that the political risk factor was meant to account for a "medium risk" return that an average investor would expect over and above real interest, but that if Iran were to be considered as a high-risk country at the time, the political risk factor would be much higher.

200. Mr. Raiisdana submitted that the Expert's model for forecasting inflation was not applicable where, as in the present Case, there were erratic fluctuations and periodic changes in trends. He suggested an inflation rate of 22 percent, and a real rate of interest of 3 percent. He also suggested a risk factor of 20 percent, stating that the Expert's figure had no empirical basis and could only apply under the most normal circumstances, which was not the situation in the present Case. He finally suggested an

overall discount rate of 45 percent, which "does not include the risk of errors in the revenue and cost projections and is only to be applied for DCF method in its final stage."

2. The Project's fair market value

201. Discounting the Project's cash flow at the rate of 28 percent on a monthly basis, the Expert calculated the fair market value of the Project as of 31 January 1980 to be Rials 4,754 million.

202. The Respondents disagreed with the Expert's estimate of the Project's fair market value, arguing that this value was negative as at the valuation date. The same conclusion was reached by the alternative valuation done by Coopers & Lybrand. Using the Expert's own model but substituting those variables where they considered that a different view should be taken, the Coopers & Lybrand valuation resulted in a "negative net present value for the Project of Rials 219.36 million." Mr. Raiisdana's calculations also resulted in a negative value of Rials 1,624 million. Both experts reached these results, even though they treated the loans as venture capital.

XI. The Claimant's Share of the Value of Shah Goli and Starrett Construction as of 31 January 1980

203. Having thus determined the Project's fair market value as of 31 January 1980, the Expert then made certain further adjustments in order to ascertain the Claimant's share of Shah Goli and Starrett Construction as of 31 January 1980. These adjustments, discussed immediately below, related to the profit Shah Goli would realize from the sale of the Project, any costs of liquidation, taxes, return of share capital, and the value of Starrett Construction.

1. The value of Shah Goli

a) Profit from the sale of the Project

204. In determining the Claimant's share of the value of Shah Goli, the Expert first calculated the pre-tax profit Shah Goli would realize from the sale of the Project. He did so by subtracting the Project's adjusted net book value as of 31 January 1980 (see supra para. 51) from the Project's fair market value on the same date (see supra para. 201).

205. With respect to the Project's adjusted net book value, the Expert first made certain further adjustments for amortization of debt, repayment of downpayments made on apartments, and unpaid notes receivable. In total, these further adjustments reduced the Expert's initial calculation of the Project's adjusted net book value (i.e., Rials 4,661 million) by Rials 284 million to Rials 4,377 million. Subtracting this value from the Project's fair market value (i.e., Rials 4,754 million) yielded a surplus, or profit, of Rials 377 million. Thus, according to the Expert, Shah Goli's profit before taxes from the sale of the Project would be Rials 377 million.

b) Costs of liquidation

206. The Expert next determined the costs of liquidating Shah Goli. As explained above, this step was necessary because, as a one-project company, Shah Goli would cease to have any further function after the Project was completed and would thus have to be liquidated. The Expert concluded, however, that the cost of liquidation "would probably be negligible in comparison with the rest of the scope of the Project." Consequently, he did not include any costs of liquidation in the valuation.

c) Taxes

207. The Expert prefaced his analysis of the applicability of taxes by stating that "tax law is one of the most complex juridical areas in any country's legislation, and, on this point, the tax law of Iran is no exception." He therefore referred his decision regarding the applicability of taxes to both Shah Goli and Starrett Construction to the Tribunal for confirmation.

208. The Expert considered that two types of tax were relevant to his valuation: tax on the company's profit and withholding tax on the dividend paid to the Claimants. With respect to the tax on the company's profit, the Expert first considered whether Shah Goli was exempt from corporate tax under Article 110 (Bis) of the Iranian Direct Taxation Act. This Article provides:

> "Natural or juridical persons who, within a period of five years from the date of approval of this Amendment (March 5, 1974), erect ten-storey residential units within the limits of cities, shall be exempt from the taxation on the incomes derived from the sale or lease of the said residential units for a period of 10 years from the date the construction is completed."

209. The Expert concluded that Shah Goli was not exempt under this Article because it did not have a tax clearance certificate establishing its tax-exempt status. Even if such a certificate could not be obtained because of the Revolution and unrest in Iran, the Expert found that, consistent with his valuation premises, such a consequence must be borne by the Claimants. Thus, according to the Expert, Shah Goli was subject to tax on its profit. As to the appropriate rate of tax, the Expert concluded that because Shah Goli was owned by one of the Claimants' German subsidiaries, the Double Taxation Treaty between the Federal Republic of Germany and Iran was applicable. The Expert noted that "[t]he validity of the treaty has not been called

into doubt." This treaty provides for a corporate income tax rate of 10 percent, which the Expert applied.

210. With respect to withholding tax, the Expert again applied the German-Iranian tax treaty. Based on this treaty, the Expert applied a withholding tax of 15 percent on the Claimants' share (i.e., 80 percent)[16] of Shah Goli's after-tax profit.

211. Thus, after deducting from Shah Goli's pre-tax profit (i) corporate income tax, (ii) the value of the minority share (i.e., 20 percent) of Shah Goli not owned by the Claimants, and (iii) withholding tax, the Expert determined that the Claimants would receive a dividend of Rials 230 million upon the sale of Shah Goli. This result can be summarized as follows:

Shah Goli	Rials millions
Profit	377
Corporate income tax (10%)	(38)
	339
Minority share (20%)	(68)
	271
Withholding tax (15%)	(41)
	230

212. The Claimants chose not to reargue the Expert's decisions regarding taxes. They pointed out, however, that the Expert should have refrained from interpreting or applying tax laws because of their complexity. In any

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[16] Starrett Housing GmbH owned 79.7 percent of the shares of Shah Goli. A further 0.3 percent of the shares was owned by directors of Shah Goli. The Expert took the view that under the circumstances, Starrett Housing GmbH could be considered as owning 80 percent of Shah Goli.

event, they argued that Shah Goli was exempt from Iranian income tax. They pointed out that Shah Goli's auditor, Mr. Bayat, stated in the audit report submitted by the Respondents that:

> "In accordance with Article 110, repeated, of the Taxation Code, the Company was exempted for 10 years to pay tax for the revenue earned as a result of sale or rent of the apartments. This Article was invalidated by the Revolutionary Council from July 10, 1980."

The Claimants also argued that the Expert misinterpreted Article 110 (Bis) and that he based his decision to deny Shah Goli tax-exempt status on "formalistic reasons" by relying on the absence of a tax clearance certificate.

213. The Respondents agreed with the Expert that Shah Goli was subject to tax. They asserted, however, that the Project did not fall within the scope of the tax exemption provided under Article 110 (Bis) of the Direct Taxation Act of 5 March 1974, as demonstrated by Circular No. 3062/20 of 20 June 1974 issued by the Ministry of Finance, which stated as follows:

> "Provisions of this Article apply to ten storey residential units or more which are constructed in city limits within five years from March 5, 1974. Therefore, the residential units of said type the construction thereof have been already started and completed within five years shall enjoy the privileges set forth in this Article with due observation of other requirements."

214. The Respondents further stated that the Expert was inconsistent when, on the one hand, he reduced the discount rate and thereby increased the value of the Project by assuming that the reasonable businessman would be an Iranian, but, on the other hand, applied the German-Iranian tax treaty which would not be available to an Iranian. They asserted that it was incorrect to treat for tax purposes the

Iranian reasonable businessman and the Claimants as one entity, thereby ignoring potential tax owed by the purchaser.

d) Share capital

215. The Expert determined that after Shah Goli had received payment for all its assets, paid all its liabilities, including taxes, and paid dividends to its shareholders, there would remain Rials 1 million to distribute to Starrett Housing GmbH as its share (i.e., 80 percent) of the remaining share capital.

e) Summary

216. Based on the above, the Expert determined that as of 31 January 1980 the Claimants' share of Shah Goli would be Rials 231 million. This result can be summarized as follows:

Shah Goli	Rials millions
Profit	377
Taxes and minority share (20%)	(147)
	230
Share capital (80%)	1
	231

2. The value of Starrett Construction

217. The Expert also calculated the value of Starrett Construction in the same manner as Shah Goli. He remarked that:

> "[t]he figures in Starrett Construction are not of the same magnitude as those of Shah Goli, and the company has therefore not been dealt with more deeply in the proceedings with the Parties. The major interests concerning Starrett Construction

refer to the consultancy agreement with Shah Goli and to the fact that the company is wholly owned by Claimants."

218. The Expert concluded that Shah Goli's contract with Starrett Construction would cease to be valid as of 31 January 1980. He stated that Starrett Construction's most important asset is the amount of Rials 336 million charged against Shah Goli for the 11.75 percent fee. He calculated that as of 31 January 1980, Starrett Construction would yield a profit of Rials 262 million. After deductions for corporate income tax and withholding tax, determined on the same basis as with Shah Goli, the Expert calculated that the parent company would receive a dividend of Rials 201 million. Thus, the Expert concluded that Starrett Construction's value as of 31 January 1980 was Rials 201 million. This result can be summarized as follows:

Starrett Construction	Rials millions
Profit	262
Corporate Income tax (10%)	(26)
Withholding tax (15%)	(35)
	201

3. The total value of the Claimants' share of Shah Goli and Starrett Construction

219. Thus, according to the Expert, the value of the Claimants' share of Shah Goli (Rials 231 million) and Starrett Construction (Rials 201 million) totalled Rials 432 million.

4. The exchange rate

220. The Expert applied the official exchange rate prevailing on 31 January 1980 to convert Rials into Dollars. He determined this rate to be Rials 70.6 to $1. On this basis, he calculated that the total value of the Claimants' share of Shah Goli and Starrett Construction was $6,119,000. However, he referred his decision in this regard to the Tribunal for its consideration.

221. The Claimants agreed with the Expert's use of this exchange rate and argued that any award they might receive should be paid in Dollars. They stated at the Hearing that under Article VII, paragraph 2, of the Treaty of Amity as well as under international law, compensation must be made in an effectively realizable form and that conversion must be made as of the date of taking at the official rate.

222. The Respondents stated that the Expert did not account for the risk of fluctuations in the exchange rate which an Iranian investor would have faced, nor did he explain how, if at all, he took this into account. They further stated that the Expert should have applied the unofficial exchange rate prevailing at the valuation date, while the Tribunal should, in case any compensation is awarded, apply the exchange rate prevailing at the date of the Award, if not the payment date. They also asserted that, pursuant to Bank Markazi regulations, no one, including any owner of Shah Goli, would have been able to obtain and repatriate foreign currency at the official rate at the time. A reasonable businessman would therefore have used the unofficial rate and made adjustments for future fluctuations. This would be a business judgment and does not involve legal implications, the Respondents stated.

223. Coopers & Lybrand disagreed with the Expert's use of an exchange rate of Rials 70.6 to US$ 1, because it was

"not appropriate to this valuation [and] does not realistically reflect an outside investor's perception of the foreign investment required to purchase the Project." Pointing to the fact recognized by the Expert that "payments were made in US$ in US to Iranians in exchange for Rials in Iran" by the Claimants when they were in control of the Project, Coopers & Lybrand stated that it would be more realistic, as well as legal, for the reasonable businessman to use the unofficial rather than official rate to establish the dollar value of the Project. They accordingly suggested the rate of Rials 133 to US$1 for this purpose, as the simple average of the various unofficial rates prevailing at the time of taking.

5. Summary

224. Based on the above, the Expert determined that as of 31 January 1980 the Claimants' share of Shah Goli and Starrett Construction totalled Rials 432 million or $6,119,000.

XII. Loans

225. With respect to the loans at issue in this Case, the Expert's terms of reference were as follows:

> "The expert shall also give his opinion as of 31 January 1980 on the proper method for taking into account loans made to Shah Goli for the purposes of the Project, as defined in the Basic Project Agreement. In this connection, his report shall include:
>
> a) The amount of principal and accrued interest of each such loan, identifying as to each the lender and the borrower;

b) The extent to which the proceeds of each such loan were expended for the purposes of the Project."[17]

226. The Expert described his task as "to decide the amount of principal and accrued interest disbursed for the Project, and to show how this indebtedness is treated in our valuation." Based on his investigation, he concluded that in total "$39,703,188" in loans were expended for the purposes of the Project. These loans are listed in para. 38, supra. Out of this total amount, the Expert determined that the Claimants had made loans to Shah Goli totalling $34,256,044, which amount they were entitled to be repaid. He also concluded that "Starrett Construction, because of accrued remuneration, has a claim of [$]5,503,046." Accordingly, the Expert factored these amounts into the Project's adjusted net book value. Thus, pursuant to the valuation method employed by the Expert, the Project's value as of 31 January 1980 takes into account these loans as liabilities which would be repaid prior to paying any dividends to shareholders.

227. In this connection, the Expert stated at the Hearing that he could not verify at the time a number of items in his Notes. While this was not the case for one of these items, a loan amount of $215,000 which the Respondents stated he accounted for twice, he saw with respect to this item, according to the Minutes "for formal reasons, no possibility for adjustments in his Final Report."[18]

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[17] Interlocutory Award, p. 57.

[18] Note 7 to Article 25 of the Tribunal Rules provides that the Tribunal "shall draft minutes of each hearing . . . . The arbitrating parties in the case, or their authorized representatives, shall be permitted to read such minutes". The Minutes were filed on 13 March 1987.

228. The Expert further concluded that interest on these loans should not be charged. Because the interest clauses of the loan agreements were not, as he deemed required under Article 129 of the Iranian Commercial Code of 1969, approved at an ordinary general meeting of the shareholders, the Expert has "not found the agreements valid in this respect." In the event that the Tribunal decided that interest should accrue on these loans, however, the Expert provided an "alternative computation of interest".

229. The Expert determined that the loans made by the Claimants to Shah Goli were loans, not share capital. The Expert based his conclusion on the grounds that, inter alia, the funds in question were treated as loans in Shah Goli's books and that no new shares were issued with respect to such funds.

230. With respect to the Claimants' loans to Shah Goli, the Expert noted that approximately $28,292,932 were recorded in Shah Goli's books. Disbursements of approximately $5,900,000 effected by the Claimants in the United States, which the Expert found to have been spent for Shah Goli and which were recorded only in the Claimants' books in New York, were also treated as loans to Shah Goli. Of these disbursements, $596,507 was paid after 31 January 1980. The Expert excluded disbursements sought by the Claimants which were not sufficiently substantiated by underlying documents. The Expert also stated that he increased the amount of some disbursements treated as loans beyond what the Claimants requested when it was in accordance with his valuation premises.

231. With respect to Starrett Construction, the Expert noted that under a Construction Services Agreement between Shah Goli and Starrett Construction, the latter was to receive a fee of 11.75 percent of the cash proceeds from apartment purchasers for certain services. Part of this fee

was paid to Starrett Construction for costs incurred. The Expert calculated that the balance of fees accrued up to 31 January 1980 and not offset by outlays totalled $5,503,046, and he treated this amount as a loan from Starrett Construction to Shah Goli.

232. The Claimants accepted the Expert's calculation and treatment of the loans in question. As stated above, in addition to seeking $6,119,000 as their share of the value of Shah Goli and Starrett Construction, they also seek (i) $34,256,044 as loans from the Claimants to Shah Goli, and (ii) $684,297 as the loan from Starrett Housing Corporation to Starrett Construction. The Claimants also accepted the Expert's decision not to charge interest on these loans.

233. The Respondents asserted that, as regards the $28 million of loans recorded in agreements or reflected in Shah Goli's books, no installments had fallen due as at 31 January 1980 or up to 19 January 1981. Consequently, there was no outstanding claim as at 19 January 1981, as required by the Claims Settlement Declaration, over which the Tribunal could assert jurisdiction. They thus requested the Tribunal "to dismiss the allegations for loans and restrict the case to the issues concerning the shares of Starrett in Shah Goli."

234. They also requested the Tribunal to eliminate the $5.9 million of alleged disbursements in the United States, which are not reflected in Shah Goli's records or correspondence, nor supported by any loan agreements. These included the $596,507 of alleged disbursements made after 31 January 1980 through September 1981, (of which $236,473 was disbursed after January 19, 1981) without Shah Goli's knowledge or authorization and which, they argued, fall outside the Expert's terms of reference. Given the fact that Starrett and Shah Goli not only had common directors but also certain common officers, these amounts should have

been reflected in Shah Goli's records and balance sheets, and minutes of board and annual general meetings, and if not, would have been discovered and rectified by their common auditors, Deloitte Haskins & Sells. They further asserted that some of those expenditures related to Starrett affiliates, including Starrett Construction, which have already been given a fee of 11.75 percent to cover such costs. To recognize those expenditures as loans to Shah Goli would thus amount to double-counting. Moreover, Starrett Construction was neither expropriated nor a Claimant in this Case, nor was its ownership by the Claimants established. Besides, Shah Goli, against which these loans are being charged, is not a Respondent in this Case.

235. With respect to the alleged disbursements in the United States the Respondents asserted that, apart from the problem of verification, a substantial portion of these must be charged to Starrett Construction rather than to Shah Goli. Since there were indications that all these had been settled and that Shah Goli's books reflected reality in this regard, the Respondents requested the Tribunal to eliminate the whole amount of these disbursements.

236. As regards the Starrett Construction fee treated as a loan by the Expert, the Respondents asserted that in the absence of a loan agreement between Shah Goli and Starrett Construction or the approval by all shareholders of such a loan, that amount could not be deemed a loan to Shah Goli. Since no expropriation claim has been brought in respect of Starrett Construction, the Respondents saw no possibility for the Claimants to recover the amount of the management fee in this Case. Because they regarded the loans as venture capital, and for the other reasons given by the Expert, the Respondents requested that in any case no interest should be charged on the loans.

237. Coopers & Lybrand were of the opinion that finance introduced to Shah Goli by the Claimants "constitutes . . ., in effect, venture capital which is often made available either as share capital or subordinated loans, and therefore should be treated as such for the purposes of this valuation exercise." They agreed that no interest should be accrued on the loans, adding that it is not uncommon for international companies to fund projects in other countries through intercompany loans on which interest is charged at a nominal rate or not at all.

XIII. Counterclaims

238. The Tribunal also asked the Expert to consider, to the extent appropriate, the counterclaims filed by the Respondents. These counterclaims are discussed in the Interlocutory Award at pages 26-31. In the Expert's Report and in this Final Award the counterclaims are identified by the same numbers as appear in the Interlocutory Award. The Expert's terms of reference in this regard were as follows:

> "The expert shall mention in his report as he deems appropriate the items, if any, referred to in the counter-claims which his investigation shows are liabilities of Shah Goli or the Project.
>
> Any substantial items relating to the claims or counter-claims which require further substantiation or determination by the Tribunal of legal issues shall be noted in the report by footnote or other suitable means.
>
> The expert shall examine the counter-claims with a view to including in his valuation such liabilities mentioned therein which are related to Shah Goli or the Project, recognizing that the Tribunal has not yet made any legal determinations concerning the counter-claims."[19]

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[19] Interlocutory Award, p. 56

239. The Expert examined the counterclaims and reflected them in the valuation to the extent that he considered that the matters to which they related were liabilities of Shah Goli or the Project. In so doing, he calculated the amount of such liabilities as at the valuation date. The Expert concluded that counterclaims 1, 2, 4-7, and 11 were liabilities of Shah Goli or the Project. The Expert therefore made appropriate adjustments, in accordance with his valuation premises, to either Shah Goli's trial balance or to the remaining costs of the Project. Thus, amounts with respect to these counterclaims have been factored into the Expert's valuation of the Project. These counterclaims concern (i) unrecovered loans to Shah Goli from Bank Omran (counterclaim 1); (ii) the balance of the price of land owed to Bank Omran (counterclaim 2); (iii) Shah Goli's liabilities to certain subcontractors (counterclaim 4); (iv) unreasonable project costs resulting from overpricing of intercompany services to the Project (counterclaim 5); (v) employer's insurance premiums and termination fees (counterclaim 6); (vi) corporate income tax and withholding taxes (counterclaim 7); and (vii) damages due to the delay in delivery of the apartments (counterclaim 11). With respect to counterclaim 2, the Expert stated that the 12 percent interest on the Rials 2,202 million land price did not accrue as at the valuation date, because the grace period of 5 years and 9 months provided for in one of the land purchase agreements ends on 13 December 1981. However, in his opinion the interest may affect the value of the Project for the buyer, although he did not take account of this in the valuation.

240. The Expert, however, also concluded that counterclaims 3 and 8-10 could not be considered to be liabilities of Shah Goli or the Project. He therefore did not make any adjustments to his valuation in respect of these counterclaims. With respect to counterclaim 3, concerning liabilities to apartment purchasers arising from

the delay in the Project's completion, the Expert determined that the Respondents had not proved that such claims had actually been raised by the apartment purchasers. With respect to counterclaim 8, concerning rent for a plot of land on which excavated soil had been left by Shah Goli and transportation costs to remove that soil, the Expert determined that Shah Goli had been permitted by the landowner to place the soil on the site and that it therefore had no liability for the claimed amounts. With respect to counterclaim 9, concerning space rents and demolition charges in respect of concrete production workshops and construction material warehouses, the Expert determined that this counterclaim could not be considered a debt on Shah Goli's balance sheet on 31 January 1980. Finally, with respect to counterclaim 10, concerning compensation for amounts spent by the Respondents in providing infrastructure and installations, the Expert determined that neither Shah Goli nor Starrett Construction had any responsibility under the Basic Project Agreement for such costs. To the extent that the Expert considered that interest was payable with respect to a matter covered by a counterclaim, he included interest costs only up to 31 January 1980, the date of taking.

241. Finally, with respect to the Respondents' counterclaim for specific performance by Starrett Housing of its guarantee of Shah Goli's performance under the Basic Project Agreement, the Expert concluded that because this counterclaim was directed against the Claimants themselves, rather than against Shah Goli or the Project, it was outside his terms of reference established by the Tribunal. He therefore did not include this counterclaim into his valuation.

242. The Claimants stated that "[a]ll of the Respondents' counterclaims were fully examined and considered by the Expert, and his determinations and

conclusions concerning them clearly warrant confirmation by the Tribunal as part of the confirmation of his Reports and recommendations."

243. The Respondents maintained their position with regard to counterclaims as described in the Interlocutory Award and explained in their previous submissions to the Tribunal. They reiterated those counterclaims which the Expert has not included as costs in the valuation.

XIV. Interest

1. The Claimants' request

244. The Claimants requested interest on the total amount they seek (i.e., $41,059,341) on a compound basis at the average annual interest rate charged by banks to the Claimants from 31 January 1980. They argued that such an award of compound interest should be made in this Case for several reasons. First, because the Claimants have been deprived of the compensation they were entitled to since 31 January 1980, they have been forced to borrow money from banks since that date at compound interest rates. Thus, an award of compound interest at the rates requested would compensate the Claimants for the actual loss and damage they suffered. Second, such an award of interest is recognized under the Treaty of Amity and international law. In particular, the Claimants argued at the Hearing that case law evidenced a trend to award compound interest in circumstances such as exist in this Case in order to compensate for actual and direct losses. Finally, the Expert in several instances employed compound interest in his valuation of the Project. In particular, the Expert determined the Project's fair market value using a discount rate (i.e., 28 percent) on a monthly compounded basis.

2. The Respondents' request

245. The Respondents requested that no interest be awarded in this Case. Alternatively, if any interest were awarded, they submited that it should be interest at a simple rate of not more than six percent, calculated from the date of the Award. The Respondents stated that "[t]here are few rules in international law that are better settled than the one that compound interest is not allowable in claims of damages."

XV. Costs

1. The Claimants' request

246. The Claimants requested an Award of reasonable attorneys' fees in the amount of $250,000. They also sought reimbursement of their deposit on the Expert's fees.

2. The Respondents' request

247. The Respondents submitted that each Party should bear its own costs, including its share of the Expert's fees.

B. THE TRIBUNAL'S DECISIONS ON PROCEDURAL AND OTHER PRELIMINARY ISSUES

248. Before deciding on the compensation due the Claimants, the Tribunal first decides a number of procedural and other preliminary issues.

I. The Respondents' Documents Filed on 15 October 1985

249. As noted above in paras. 8-10, the Expert did not consider in his valuation certain materials submitted by the Respondents on 15 October 1985 relating principally to calculations of remaining costs of the Project ("the Materials"). The Expert disregarded the Materials for a number of reasons, including his view that they were not relevant to his valuation premises. In an Order filed on 22 December 1986, the Tribunal rejected the Respondents' request, made after the submission of the Expert's Report, to take the Materials into account, and it decided not to consider them. The Tribunal further held in this Order that, in the event that it "determines not to accept the expert's valuation premises, it may determine that various additional data should be considered, which might include some or all of the Materials [in issue]." Because the Tribunal accepts the Expert's valuation premises in this respect (see infra paras. 324-35), it reaffirms its decision not to consider the Materials.

II. The Respondents' Documents Filed on 15 December 1986

250. On 15 December 1986 -- one month before the Hearing -- the Respondents filed, as part of their Comments on the Expert's Report, a number of Exhibits, a Memorial on Sale with Exhibits, as well as several affidavits and three reports by accountants. At the Hearing, the Claimants objected to the admissibility of those among these documents which had not previously been submitted to the Tribunal or the Expert, while the Respondents insisted that they be allowed to refer to all documents they had submitted in order to substantiate their Comments. The Tribunal joined with the merits its decision on the question of whether to admit in evidence those documents which the Claimants

requested to be excluded from consideration. See supra para. 11.

251. The Tribunal notes that in its Orders filed after the submission of the Expert's Report it invited the Parties to "comment" on that Report. In doing so, the Tribunal was acting in accordance with Article 27, paragraph 3, of the Tribunal Rules, which provides in pertinent part:

> "Upon receipt of the expert's report, the arbitral tribunal shall communicate a copy of the report to the parties who shall be given the opportunity to express, in writing, their opinion on the report." (emphasis added.)

Based on this Rule and the invitation to the Parties to comment on the Expert's Report, the Tribunal decides that among the documents in question, those documents expressing opinions are admissible, but those which constitute new evidence or contain new facts are inadmissible. In making this decision, the Tribunal notes that the new material was submitted shortly before the Hearing, that extensive opportunities had been provided by the Expert for timely submission, and that no plausible explanation was given for the late filing. The Tribunal's decision allows the Parties to express an opinion on the Expert's Report, thereby assisting the Tribunal in considering the Expert's valuation, while it also ensures that the other Party will not be unfairly prejudiced by untimely filed documents not previously submitted to the Parties and the Expert. Similarly, the Tribunal decides that an affidavit or report based on evidence or facts presented for the first time raises the same problem as new evidence or facts, and therefore such affidavits or reports are not admissible. Accordingly, the Tribunal determines that six affidavits expressing opinions concerning housing market conditions in

Iran are admissible.[20] The Tribunal also takes judicial notice of the "Act on the Reduction of Rental Housing Units." All other documents filed by the Respondents on 15 December 1986 to which the Claimants have objected are not admitted as evidence.

III. The Respondents' Document Filed on 8 June 1987

252. On 8 June 1987 -- more than four months after the Hearing -- the Respondents filed with the Tribunal a document concerning an adjustment that they had requested the Expert to make with regard to Shah Goli's trial balance. The document included copies of checks, and the Respondents requested the Tribunal "to take them into consideration as further support" for an adjustment that was contained in the Expert's Notes submitted at the beginning of the Hearing. The Respondents stated that this filing was made in response to the Expert's statement at the Hearing that no copies of the checks had been previously submitted to him by them. They asserted that after checking their own records they reminded the Expert after the Hearing of the matter and that he, after checking his own records, acknowledged to them that he had received the documents in September 1984. In a letter received at the Tribunal on 26 June 1987, the Claimants requested that the Tribunal not consider the material filed by the Respondents on 8 June 1987, or any further submissions. In light of its decision on the merits of the issue to which the document relates (see infra para. 299), the Tribunal does not need to reach the question of its admissibility.

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[20] Affidavits of M. R. Jowdat, B. Daftari, S. Abtin, S. Entezari, M. Ehteshami, and M. Pooya.

IV. The Respondents' Request for the Expert to Make Another Visit to Tehran

253. In connection with the Expert's calculation of the prices at which Shah Goli apartments would be sold or resold after 31 January 1980, the Respondents requested, inter alia, that the Expert make another trip to Tehran in order to inspect the original sales contracts of Shah Goli apartments. In view of its finding on this aspect of the Expert's Report (see infra paras. 309-19), the Tribunal determines that it is unnecessary for the Expert to make another visit to Tehran.

V. The Expert's Adjustments at the Hearing

254. Following an invitation by the Tribunal, the Expert, at the start of the Hearing, submitted to the Tribunal and the Parties a document entitled "Expert's Notes after reading the Parties' Comments on Final report" ("Expert's Notes"). Of the possible adjustments that he mentioned in those Notes, the Expert, later in the Hearing, maintained that only one adjustment should be made. That adjustment concerned a loan from Starrett Housing Corporation. See supra para. 38 n. 12. The Tribunal accepts the Expert's determination and considers the Report modified in this respect. As noted above (see supra para. 38), this adjustment does not affect the total value of the loans claimed by the Claimants. See also infra para. 359. Further, as discussed below (see infra paras. 289, 357), the Tribunal decides to make an adjustment which the Expert had verified but could not recommend be adjusted because the Claimants had not commented on it. The Tribunal makes this decision on the grounds that the Claimants had an opportunity to comment on this matter at the Hearing but did not do so and that the Expert had verified this matter. With respect to the other items considered in the Expert's Notes, the Tribunal decides not to make any adjustments in the

light of the fact that, inter alia, the Expert stated that while these seemed "reasonable" he could not verify them at the time and therefore excluded them in accordance with his basic valuation premises.

VI. The Respondents' Request With Regard to Related Cases

255. The Respondents requested that the Tribunal defer the Award in the present Case pending the decisions in Cases Nos. 224, 262, 288, and 819 which, they asserted, are related to the Project.[21] Alternatively, the Respondents requested the Tribunal to "take any sufficient measures as the Tribunal finds appropriate" in order to provide that "necessary precautions should be made to make sure that due consideration is given to the above cases," and to ensure that compensation, if any, is not paid twice.

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[21] Case No. 224 involves, inter alia, a claim by Chase Manhattan Bank, N.A. against Bank Omran for reimbursement of loans to the Claimants in connection with the Project, whose repayment was allegedly guaranteed by Bank Omran under the so-called Bank Omran Guarantee.

Case No. 262 involves, inter alia, a claim by Chemical Bank against Bank Omran for reimbursement of another loan, based on the same kind of arrangements as at issue in Case No. 224. It appears that this claim relates to the claim against Bank Omran in Case No. 224.

Case No. 288 involves, inter alia, a claim by Otis Elevator Company against the Government of Iran and Shah Goli for unpaid invoices under two contracts with Shah Goli for the sale and installation of elevators into the Project. Shah Goli has brought a counterclaim for breach of contract.

Case No. 819 involves, inter alia, claims by H & F Kornfeld, Inc. and other companies against the Government of Iran and Shah Goli for breach of contracts in connection with the Project. Shah Goli has brought counterclaims for breach of

(Footnote Continued)

256. The Tribunal notes that the Expert has taken into account certain items involved in the above cases as costs of the Project, thereby decreasing the Project's and Shah Goli's value. In any event, those cases, which are all before Chamber One, will be decided on their own merits, and, no doubt, due consideration will be given to their relationship with the Project.[22] Therefore, the Tribunal sees no need to postpone the issuance of the Award in the present Case until Cases Nos. 224, 262, 288, and 819 are decided.

VII. The Claimants' Alternative Claims

257. Initially, the Claimants asserted three alternative claims in this Case.[23] First, they sought compensation from the Government of Iran for the expropriation of their property rights in Shah Goli and the Project. Alternatively, they sought to recover costs incurred for the Project from the Government, Bank Markazi, and Bank Mellat as successors to Bank Omran, based on the force majeure provisions of the Basic Project Agreement. As a further alternative, they sought to recover costs expended for the Project and loans to the Project from the Government, Bank Markazi, and Bank Mellat as successors to Bank Omran, based on the so-called Bank Omran Guarantee. Later, the Claimants only requested to be awarded compensation for the

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(Footnote Continued)
contract.

[22] In this respect, the Tribunal notes that the Claimants stated in their Reply Memorial that "we repeat the assurance given by Starrett's counsel . . . that under no circumstances will there be any double recovery with respect to the amount of the loans by the Chase Manhattan and Chemical Banks to Starrett, which, in turn, loaned those funds to Shah Goli . . . ."

[23] Interlocutory Award, pp. 13-14.

expropriation of their property rights and no longer pursued their two alternative claims. The Tribunal accepts this determination by the Claimants, and consequently will decide the claims on the basis of expropriation.

VIII. The Proper Parties

258. As explained immediately above, the Tribunal determines that the claims as they are made at this stage of the proceedings are based solely on expropriation of the Claimants' property rights as defined in para. 3, supra. The only proper Respondent for such an expropriation claim is the Government of the Islamic Republic of Iran, and consequently the Tribunal dismisses Bank Markazi Iran, Bank Omran, and Bank Mellat as Respondents.

259. As far as the proper Claimants for the various claims are concerned, the Tribunal determines that the claim for expropriation of the Claimants' share of the value of Shah Goli is properly brought by Starrett Housing International, Inc. This is the United States company in the Starrett group of Claimants which directly owns 100 percent of Starrett Housing GmbH, the German subsidiary, on behalf of which Starrett Housing International, Inc. claims, and which in turn owned 79.7 percent of the shares of Shah Goli. As far as the claim relating to the Starrett Construction management fee is concerned, the Tribunal determines that the proper Claimant is also Starrett Housing International, Inc. since it owned 100 percent of N&B Unternehmensberatung GmbH, a company incorporated in the Federal Republic of Germany, which in turn owned 100 percent of Starrett Construction. As far as the claims relating to each of the loans are concerned, the Tribunal determines that the proper Claimant is the respective lender, as detailed more fully below (see infra para. 359), except that Starrett Housing International, Inc. properly brings an indirect claim with regard to the loan made by Starrett

Housing GmbH, its wholly-owned German subsidiary. See infra para. 262.

C. THE TRIBUNAL'S DECISIONS ON VALUATION

I. Introduction

260. In the Interlocutory Award, the Tribunal found that the Government took the Claimants' property rights in Shah Goli and the Project, and that it owed the Claimants compensation for this expropriation. In approaching the present Award, the Tribunal must at the outset determine (i) the appropriate standard of compensation in the light of the applicable law, and (ii) the principles that will guide it in deciding upon the weight that it should give to the Expert's opinions.

1. The standard of compensation

261. As to the first question, the Tribunal finds that, pursuant to the Treaty of Amity between Iran and the United States,[24] the Claimants are entitled to receive compensation which shall be "just" and "shall represent the full equivalent of the property taken"[25] as of the date of taking. As

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[24] Treaty of Amity, Economic Relations and Consular Rights between the United States of America and Iran, signed 15 August 1955, entered into force 16 June 1957, 284 U.N.T.S. 93.

[25] Id. art. IV, para. 2. Article IV, paragraph 2, of the Treaty provides:

> "Property of nationals and companies of either High Contracting Party, including interests in property, shall receive the most constant protection and security within the territories of the other High Contracting Party, in no case less than that required by international law. Such property shall not be taken except for a public purpose, nor shall it be taken

(Footnote Continued)

the Tribunal has previously held, the Treaty is "clearly applicable" and thus a "relevant source of law on which the Tribunal is justified in drawing." Phelps Dodge Corp. and Islamic Republic of Iran, Award No. 217-99-2, paras. 27-28 (19 March 1986). See also Amoco International Finance Corporation and Government of the Islamic Republic of Iran, Partial Award No. 310-56-3, paras. 88-103 (14 July 1987).

262. In reaching the conclusion that the Treaty of Amity governs in this Case, the Tribunal is mindful that part of the property taken was owned by Starrett Housing GmbH, a company incorporated in the Federal Republic of Germany, which is a wholly-owned subsidiary of the Claimant Starrett Housing International, Inc., incorporated in the United States. Further, with respect to the claim relating to the Starrett Construction management fee, the Tribunal notes that Starrett Construction was a wholly-owned subsidiary of N&B Unternehmensberatung, a company incorporated in the Federal Republic of Germany, which was in turn wholly-owned by Starrett Housing International, Inc. The Treaty of Amity, by its express terms, governs not only "property" of nationals, i.e. property owned directly, but also "interests in property,"[26] a phrase sufficiently broad to include indirect ownership of property rights held through a subsidiary that is not a United States national.[27]

(Footnote Continued)
without the prompt payment of just compensation. Such compensation shall be in an effectively realizable form and shall represent the full equivalent of the property taken; and adequate provision shall have been made at or prior to the time of taking for the determination and payment thereof."

[26] Id.

[27] Accord Amoco International Finance Corporation and Government of the Islamic Republic of Iran, Partial Award No. 310-56-3, paras. 110-11 (14 July 1987).

2. The weight to be given by the Tribunal to the Expert's opinions

263. A second question that the Tribunal must consider at this stage of the proceedings is the weight that it should give to the Expert's opinions in determining the value of the property that was taken.

264. Faced with complex accounting problems, the Tribunal was in this Case impelled by the same considerations that motivated the International Court of Justice to appoint experts in the Corfu Channel Case: "to obtain any technical information that might guide it in the search for the truth."[28] While in some expropriation cases tribunals do not consider it necessary to appoint valuation experts because there is sufficiently clear evidence on which to base a decision on compensation, there is also a long history of international tribunals appointing experts where they believe that advice on technical matters is needed. Thus, the Tribunal in this Case exercised its discretion in the same manner as the Permanent Court of International Justice had done in the Chorzow Factory Case when it designated experts to ascertain "the estimated value of the undertaking . . . at the moment of taking possession by the Polish Government."[29] Such use of experts is foreseen by Article 27, paragraph 1, of the Tribunal Rules which empowers the Tribunal to "appoint one or more experts to report to it, in writing, on specific issues to be determined by the tribunal."[30]

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[28] Corfu Channel Case (U.K. v. Alb.), 1949 I.C.J. 4, 20

[29] Chorzow Factory Case (Ger. v. Pol.), 1927 P.C.I.J. ser. A, No. 7 at 44 (Judgment of 25 May 1926).

[30] In accordance with this authority, other Chambers
(Footnote Continued)

265. In determining the weight to be given to the Expert's Report, the Tribunal must first consider his qualifications. It is noteworthy that no issue arose between the Parties on this point. While the Respondents contested a number of aspects of the Expert's investigation and Report, none of the Parties questioned his qualifications. The Tribunal, which had reviewed the Expert's background and experience before appointing him, finds that its initial impressions have been fully confirmed by the high professional quality and impartiality evident in his work.

266. No matter how well qualified an expert may be, however, it is fundamental that an arbitral tribunal cannot delegate to him the duty of deciding the case. Rather, the Expert's Report is simply one element to be considered and weighed by the Tribunal along with all of the other circumstances of the Case.[31]

267. The Tribunal has considered a number of factors in determining the weight to be given to the Report. First, the Tribunal has observed the painstaking procedures that the Expert followed. The Tribunal finds that the Expert's procedures were, on the whole, meticulous and comprehensive.

(Footnote Continued)
of this Tribunal also have appointed experts to report on technical questions. See, e.g, Harza and Islamic Republic of Iran, Award No. 232-97-2 (2 May 1986); Chas T. Main International, Inc. and Khuzestan Water and Power Authority, Award No. 239-120-2 (20 June 1986). See also Straus, The Practice of the Iran-U.S. Claims Tribunal in Receiving Evidence from Parties and from Experts, 3 J. Int'l Arb. 57, 63-69 (1986).

[31] Article 26, paragraph 6, of the Tribunal Rules (taken verbatim from the UNCITRAL Arbitration Rules) provides that:

> "The arbitral tribunal shall determine the admissibility, relevance, materiality and weight of the evidence offered." (emphasis added)

These qualities have led to the substantial value of the Report. Although the specific steps that the Expert took are described in some detail in paras. 6-10, supra, it is worthwhile to recall his overall approach as described in his own words. He explained that his basic principle was to give "the Parties an opportunity to put forward their opinions within all crucial sectors of the valuation." To accomplish this, at various stages "of the valuation process both Parties have been given a fair opportunity of presenting their views." The Expert affirmed that he "has given careful consideration" to the suggestions of the Parties and has reflected in his Report those suggestions that he "found to be motivated on the basis of relevant and factual arguments." Where his opinions differed from the views of a Party he "sought to account for the Parties' opinions and motivations therefore as correctly as possible." He noted, particularly, that both Parties had access to "qualified advisors of different disciplines and fields of expertise" and that he "examined" their views and "attempted to clarify the reasons for the identified differences of opinion." He submitted a draft of his Report to the Parties and received and reflected their comments before submitting his Report to the Tribunal. The Tribunal finds that the written evidence in the record confirms that the Expert fully carried out the procedures that he described.[32]

268. The substantial weight that the Tribunal gives to the Report is also influenced by the thoroughness of the process by which the Expert sought to verify all information

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[32] Similar procedures in which an expert made "the results of his researches [] available in full both to the tribunal and to the parties, so that they have the opportunity to suggest differing inferences and conclusions from the data . . . [were] followed in the Corfu Channel Case . . . ." G. White, The Use of Experts by International Tribunals 179 (1965).

presented to him by the Parties. Members of his staff visited Tehran twice, and he and his staff visited New York once for inspections and auditing of records, a process which representatives of both Parties were invited to observe. He reviewed a huge amount of material which the Parties submitted to him, and held three meetings with them. The only data submitted to him by a Party that he did not consider is discussed above at paras. 139 and 249, and the Tribunal finds that he acted correctly in rejecting that material. Additionally, the Expert consulted other experts in specialized fields and carefully identified and reflected their views in his Report.

269. The material submitted by the Expert to the Tribunal is literally "weighty." It consists of 12 volumes, together with a descriptive transmittal letter summarizing his views. In this massive submission, the Expert set forth not only his conclusions but also cited the evidentiary support for them and described the positions of the Parties on each significant issue. He included full texts or quotations of relevant portions of the documents upon which he relied.[33] His credibility is enhanced by his candor. Thus, where he drew inferences or made subjective judgments, he pointed them out and explained his reasons. Where he considered that he may have made a judicial interpretation, he identified the point and referred it to the Tribunal for

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[33] The Report in this respect meets the standard enunciated by the International Court of Justice in the Corfu Channel Case:

> "The Experts shall not limit themselves to stating their findings; they will also, as far as possible, give the reasons for these findings in order to make their true significance apparent to the Court."

Corfu Channel Case (U.K. V. Alb.), 1947-48 I.C.J. 124, 126-27 (Order of 17 December 1948).

final decision. Where he considered a matter beyond his terms of reference, he specifically called attention to it.

270. Moreover, the Tribunal had the opportunity to question the Expert and receive clarifications from him at the Hearing held pursuant to Article 27, paragraph 4, of the Tribunal Rules.[34] At the same time, the Tribunal was able to test the Expert's views in the light of testimony of expert witnesses presented by the Respondents on various points at issue.

271. In considering its function vis-à-vis the Expert, the Tribunal has followed the same principles as were enunciated by the Franco-Italian Conciliation Commission:

> "It is certain that the opinion of the expert does not bind the Commission which must decide according to its own conviction. But taking account of the facts and evaluation techniques, there is no reason for the court not adopting as its own the conclusion of the expert, unless his argumentation is in contradiction with the facts of record, with the legal provisions or the rules of logic."

Heretiers de Sar Mgr. le Duc de Guise Case, Franco-Italian Conciliation Comm., Dec. No. 162 (20 November 1953), 13 R. Int'l Arb. Awards 162, 168 (1963) (translation). See also I.V.E.M. Claim, Franco-Italian Conciliation Comm., 1955 Int'l L. Rep. 875.

272. Commenting on this approach, the author of a leading treatise states:

> "It is submitted that these principles, so clearly expressed by the [Franco-Italian] Commission, are susceptible of application by any international tribunal, and further that it is desirable that they should be so applied. This is not to suggest

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[34] See supra para. 11 n. 9.

> that in practice they are not applied; indeed, the cases examined in this study indicate that this awareness of the relative functions of the experts and the court is common to all international tribunals. The decision [of the Franco-Italian Commission] is remarkable rather for the explicit statement of these principles than for any uniqueness in their application."

G. White, The Use of Experts by International Tribunals 143 (1965).

273. The Tribunal has followed these recognized principles in considering the Expert's Report. Thus, the Tribunal adopts as its own the conclusions of the Expert on matters within his area of expertise when it is satisfied that sufficient reasons have not been shown that the Expert's view is contrary to the evidence, the governing law, or common sense. On the other hand, the Tribunal does not hesitate to substitute its own judgment of what is reasonable with respect to matters that do not require expertise as to accounting or valuation methodology.

274. In this connection, it will be recalled that the Expert's valuation method based on the concept of fair market value requires, inter alia, determinations as to various forecasts that a hypothetical reasonable businessman who was a willing buyer of the Project would have made on 31 January 1980. See supra paras. 18, 27. By definition, such assessments by a reasonable businessman are the conclusions of a layman, albeit one who is likely to have had the advice of a technical expert -- a position analogous to that of the Tribunal itself. Thus, for example, the hypothetical reasonable businessman would have to make forecasts on such matters as (i) how many apartments and parking spaces would be likely to be available for sale or resale, and (ii) whether it would, as a practical business matter, be possible in all sales to collect the additional amount provided by the escalation clause of the Apartment Purchase Agreements, as well as various utility charges. The answers

to such questions are not to be found solely by accounting analysis or by the application of technical valuation methods. As to such matters, the Tribunal, like the hypothetical willing buyer, must make a reasonable forecast of future events. Judgments on such matters may well differ; and in this Case the Tribunal's judgment differs to some extent from that of the Expert on certain subjects. As more fully explained below, the Tribunal makes its own judgment of how a reasonable businessman would be likely to evaluate these matters, and this requires a downward adjustment of Rials 350 million in the Expert's assessment of the gross profit of Shah Goli. See infra paras. 337-42. Also, the Tribunal on the basis of its analysis of the evidence, makes certain adjustments with respect to particular loans and other matters. See infra paras. 337, 356-57.

275. In other respects, the Tribunal largely adopts the views of the Expert. In accepting various conclusions of the Expert, the Tribunal also approves the procedures he followed in reaching his conclusions, including his decisions not to accept certain documents. Further, the Tribunal notes that in reaching certain conclusions the Expert had to determine questions of a legal nature in order to proceed with the valuation. To the extent that the Tribunal approves conclusions of the Expert involving legal issues, it also approves, for the purpose of this Case, his provisional determinations of such legal issues.

3. The decisions to be made by the Tribunal

276. In determining the value of the property taken, the Tribunal will consider the different elements of the valuation as defined by the Expert and described above in Section A. The Tribunal will discuss these elements in the same logical order in which they were addressed by the

Expert and as they are summarized above, and assess their impact on the valuation. The Tribunal will then take up the special issues related to Starrett Construction, the loans, the counterclaims, and interest.

II. Decisions on the Expert's Valuation Concept and Methods

277. The Tribunal agrees with the Expert's valuation concept, methods and approach. He set out to determine the fair market value of Shah Goli at the date of taking and to provide data that would be helpful to the Tribunal in determining the compensation to be awarded in this Case. He correctly defined fair market value as the price that a willing buyer would pay to a willing seller in circumstances in which each had good information, each desired to maximize his financial gain, and neither was under duress or threat. He appropriately assumed that the willing buyer was a reasonable businessman. In reaching its conclusion to adopt the Expert's approach in this respect, the Tribunal notes that neither Party was opposed to it. Indeed, the Respondent's expert, Coopers & Lybrand, also based its conclusions on the concept of the price that a reasonable businessman would pay for the Project on 31 January 1980.

278. For purposes of the valuation, the Expert assumed that the willing buyer would be an Iranian national. By doing so, the Expert eliminated conjecture as to varying degrees of risk that might be anticipated by buyers of different nationalities, which under conditions prevailing in Iran might vary depending on the nationality of the buyer. The Tribunal considers that this assumption is reasonable, and in making this finding notes that at the Hearing Mr. Chilvers, an expert witness presented by the Respondents, generally concurred with the Expert on this point.

279. As noted, the Expert made his valuation in three stages. First, he determined Shah Goli's adjusted book value on the date of taking. Then, recognizing that this book value does not represent fair market value, he determined the price a reasonable buyer would pay for the Project. To do this the Expert employed the DCF method, a well-known valuation technique based on discounted cash flow. See supra para. 32. The use of the DCF method had been foreseen in the Interlocutory Award, in which the Tribunal instructed the Expert to give his opinion "considering as he deems appropriate the discounted cash flow method of valuation."[35] Finally, the Expert determined the Claimants' share of Shah Goli as of the valuation date.

280. The steps that the Expert took at each stage of his valuation are described in paras. 31-33, supra. The Tribunal finds that the methods employed by the Expert and the stages by which he made his valuation were logical and appropriate. In reaching this conclusion, the Tribunal notes that the Respondents did not in principle oppose the Expert's concept of fair market value or his approach to the stages of the valuation, although they disagreed with the way the Expert applied his method and, consequently, with the result he reached.

281. In a portion of the Report that the Respondents contest, the Expert referred to a number of governmental measures that, in his view, "possibly had a negative influence on Shah Goli." According to his valuation premises, the effects of such measures should not be taken into account in determining the value of property that has been taken. See supra paras. 22-25. The Tribunal considers it highly problematical that all the measures the Expert listed fall within the category of acts of taking or threats

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35 Interlocutory Award, p. 56.

of taking, the effects of which must, under international law, be excluded in determining compensation for expropriated property. This issue is relevant in this Case, however, only with respect to the determination of future prices for apartments which were or became available for sale after 31 January 1980. As explained below, the Tribunal decides the question of future prices on the basis of the Expert's "main line" approach in which he, in essence, eliminated the effects of certain exceptional circumstances that he saw as temporarily depressing apartment prices, rather than upon the legal character of particular governmental acts that may have contributed to creating those circumstances. See infra paras. 313-19. Therefore, the Tribunal does not need to reach a decision concerning the legal character of any of the governmental acts referred to in the Report.

III. Decisions on the Expert's Determination of Shah Goli's Financial Position on 31 January 1980

282. As the first stage in the valuation process, the Expert prepared a balance sheet representing the financial position of Shah Goli on the taking date. Observing that it had been the regular business practice of Shah Goli to prepare so-called "trial balance sheets" each month, he used as his starting point the "trial balance sheet" of 31 January 1980 and then made a number of adjustments which he deemed necessary in accordance with generally accepted accounting principles. Similarly, the Expert prepared an adjusted balance sheet of Starrett Construction as of 31 January 1980.

283. In his Report, the Expert explained in detail each of the adjustments that he had made. He pointed out where he had drawn inferences due to lack of documents. Also, he indicated where it had been necessary for him to make

certain legal assessments in order to proceed with the valuation, and he referred those to the Tribunal for final decision. The Respondents, as described in paras. 55-76, supra, objected to a number of the adjustments that the Expert made and argued that certain additional adjustments should be made. The Tribunal must therefore decide a number of separate questions in this regard.

284. The Tribunal observes that these questions involve many complicated issues of accounting and valuation. In making its decision, the Tribunal has thoroughly reviewed the entire record before it, including the Expert's Report and the extensive submissions of the Parties.

1. Azarnia affiliates' fees

285. There is no dispute that there were contracts between Shah Goli and the Azarnia companies that provided for the Azarnia companies to receive a sales fee of 8.25 per cent of the cash proceeds received by Shah Goli in respect of apartments sold by Azarnia. The issues in dispute are whether those contracts came to an end, as assumed by the Expert, and whether, even if they did, the Azarnia companies are nonetheless entitled to receive fees based on the proceeds from apartment sales made as a result of their efforts before the contracts ended. The Expert concluded that the contracts came to an end no later than 31 January 1980. He based this conclusion, inter alia, on the fact that Shah Goli on 18 June 1979 gave written notice of default to the Azarnia companies, and that they did not respond during the thirty-day period for correcting defaults provided in the contracts. The Respondents argued that even if the contracts came to an end, the Azarnia companies had earned their fees before the valuation date, and the obligation to pay those fees should, therefore, be accounted for as a "deferred cost" on Shah Goli's adjusted balance sheet of 31 January 1980. The Expert did not agree, and

included fees based on cash proceeds only up to 19 July 1979. He referred to the Tribunal the question of whether the Azarnia companies were entitled to fees on proceeds received from 19 July 1979 through 31 January 1980. The Tribunal accepts the Expert's determinations on this matter and finds that, for the purpose of the valuation, the Azarnia companies were not entitled to fees on proceeds received after 19 July 1979. In this connection, the Tribunal considers that a reasonable businessman who was purchasing the Project on 31 January 1980 would not continue paying fees on such proceeds. The Tribunal also considers that it was reasonable for the Expert to have concluded that, in the light of the circumstances, the contract with the Azarnia companies would have come to an end no later than 31 January 1980 when the Project was expropriated.

2. Starrett affiliates' fees

286. The Expert concluded that Shah Goli's contract with Starrett Construction would cease to be valid as of 31 January 1980. He therefore credited Starrett Construction with its developer's fee of 11.75 percent through that date. The Respondents, however, argued that Starrett Construction was entitled to its fee only up to July 1979 when its personnel left Iran, and it ceased to perform its contractual functions. See supra paras. 57-58. The Respondents also argued that the Expert should have considered all of Starrett Construction's costs, not just those reflected in its books, in determining its profit. Finally, they contended that the Expert wrongly included incomes from related companies in determining Starrett Construction's income.

287. The Tribunal cannot accept these arguments to make adjustments to Starrett Construction's fees. In the circumstances of this Case, the Tribunal considers it reasonable for the Expert to have concluded that the

Starrett Construction contract would cease to be valid as of 31 January 1980 when the Claimants' property rights were taken. Consequently, Starrett Construction must be credited for the fees through that date. Further, the Tribunal is satisfied that the Expert reasonably and fairly determined Starrett Construction's costs and income in his valuation.

3. Loans by Starrett in the form of disbursements outside Iran

288. The Expert reflected various loans to Shah Goli on the balance sheet that he prepared. These included not only amounts for which written loan agreements were made, but also advances of funds to pay expenses of Shah Goli incurred outside Iran in connection with the Project. The Respondents objected to the Expert including as loans any such disbursements that were not covered by written loan agreements. See supra paras. 59-62. The Tribunal, however, is persuaded that the Expert's treatment of such disbursements as loans is correct and was the accounting practice consistently followed before the taking. See supra paras. 229-30 and infra para. 356. Further, the Tribunal notes that, except as the Tribunal otherwise holds in para. 356, infra, the Expert verified that such disbursements had been expended for purposes of the Project, a process that included inspection of books and records at which all Parties had full opportunity to be present.

289. As to the Respondents' assertion that $995,000 of the amount that the Expert recognized as loans were in fact personal advances to Azarnia or Azgara Co., of which $935,000 had been repaid by Azgara through Starrett Construction and Shah Goli, the Tribunal finds that the Respondents have not sufficiently explained or substantiated this assertion. The Tribunal also notes that the Expert stated at the Hearing that he was unable to verify the Respondents' position in this respect. However, as

discussed in detail below (see infra para. 357), the Tribunal finds that an adjustment should be made for the $215,000 which the Expert verified had been taken into account both as loans and as liabilities on the trial balance sheets.

4. Escalation clause

290. In preparing the balance sheet, the Expert assumed that the purchase price of apartments in the Project, including the 99 apartments closed prior to 31 January 1980, would be increased pursuant to a 10 percent escalation clause contained in the Apartment Purchase Agreements. He considered that the so-called "Procès-Verbal" waiving Shah Goli's contractual right to a price escalation was not valid because of the circumstances in which it had been signed. Since the escalation would be paid only upon delivery of the apartments and since this issue relates generally to the price of apartments, it is discussed in the section below which deals with that subject. See infra paras. 310-12. The Tribunal notes here, however, that even if the escalation clause were considered as a binding obligation that was not waived by the "Procès-Verbal," a reasonable businessman familiar with conditions in Iran might expect that it would not be feasible, as a business matter, to collect the 10 percent escalation on the sales of all apartments, particularly, in view of the fact that it had not been collected in the sales of 99 apartments that had been closed before 31 January 1980.

5. Correction of Chase Manhattan Bank account

291. As discussed in para. 64, supra, the Respondents contended that the Expert did not adequately explain his adjustment to the trial balance sheet with respect to an

account with the Chase Manhattan Bank. The Tribunal first notes that the Expert made many adjustments to the trial balance sheet and that he discussed what he termed "the most essential adjustments" in the text of his Report. The other adjustments made by the Expert are discussed and analyzed in the appendices following the text. The Chase Manhattan Bank account adjustment is one of those adjustments discussed in the appendices. In this respect, the Expert stated that he made this adjustment because the difference between the amount recorded in the trial balance and the amount indicated in a bank statement was probably covered by a separate expense of Starrett. The Tribunal is satisfied with this assessment and sees no reason to reject it.

6. Debts to Aranco

292. The Respondents, as discussed in para. 65, supra, objected to the Expert's conclusion not to include Rials 54,565,354 as a debt to Aranco for invoices for concrete. The Expert based his decision in this respect on the Bayat audit report for 1979 which did not recognize such a debt. The Tribunal finds that the Respondents have failed to substantiate their argument that such a debt should be recognized. In the absence of convincing arguments to the contrary, the Tribunal sees no reason to reject the Expert's conclusion.

7. Payments to suppliers and contractors

293. The Tribunal does not accept the Respondents' argument that the Expert was incorrect in including among Starrett's loans to Shah Goli an amount of Rials 120 million on account of payments made in the United States to suppliers and contractors. See supra para. 66. The Tribunal notes that the Expert has verified that these payments were made and that the proceeds were used for

purposes of the Project. See infra para. 353. This question was raised by the Respondents during the course of the Expert's investigation, and he found no basis to change his view. The correctness of accounting for payments as loans in the absence of written loan agreements is discussed in paras. 288-89, supra. See also infra para. 356. The Tribunal finds no reason to reject the Expert's view on this accounting matter.

8. Liabilities arising from operation of law

294. The Tribunal does not accept the Respondents' arguments that the Expert ignored certain statutory liabilities of Shah Goli, in particular a Municipality Renovation Levy, Barren Land Tax, and a penalty for failing to obtain a building permit for site 1175. In fact, the Expert carefully considered each of these items and in each instance decided that they should not be considered liabilities of Shah Goli. With respect to the Municipality Renovation Levy, the Expert concluded that this was not a liability of Shah Goli as of 31 January 1980 because transfers of title to some apartments had taken place which could not have occurred if the levy had not already been paid. In addition, the Expert assumed that Mr. Neghabat would have taken this levy into account if it had been applicable. With respect to the Barren Land Tax and the missing permit penalty, the Expert noted that the Respondents raised these alleged liabilities very late in the valuation process without any documentary evidence to support a claim as of the valuation date. Also, the Expert noted that the notice of court action against Shah Goli in this respect was dated July 1985, well after the valuation date. The Tribunal sees no reason to disturb the Expert's conclusions in these respects.

9. Tax assessments for 1978 and 1979

295. The Respondents requested the Tribunal to recognize tax assessments for 1978 and 1979 which the Expert allegedly ignored. See supra paras. 68-70. The Tribunal notes that the Expert was aware of the tax assessments for 1978 and 1979, but determined that they should not be reflected in the trial balance. The Tribunal determines that the Respondents have not sufficiently explained or substantiated their requests in this respect.

10. Certain adjustments on which the Expert is silent

296. The Respondents asserted that the Expert had failed to investigate or recognize certain other liabilities of Shah Goli. The Tribunal, after reviewing these items, concludes that the Respondents have failed to substantiate sufficiently their arguments that these items should be included in the valuation. As stated above, the Expert considered many items when adjusting the trial balance sheet and included those items in his valuation which he considered to be necessary. The Tribunal sees no justification to add further such adjustments in the absence of compelling grounds to do so. Thus, the Tribunal rejects the Respondents' request in this respect.

11. Azgara collateral

297. The Tribunal does not accept the Respondents' assertion, made in para. 72, supra, that Shah Goli reduced the balance of a loan to it from Bank Omran with Azgara collateral. Again, the Tribunal sees no reason to modify the Expert's treatment of this item in the absence of sufficient evidence supporting the Respondents' request or any other compelling grounds to do so.

12. Adjustments to notes receivable

298. The Respondents base their request to decrease the value of outstanding notes in the trial balance sheet on an analysis of notes for each building submitted by them to the Expert. The Expert did not recognize such an adjustment, and the Tribunal has seen no evidence which would lead it to alter his view.

13. Bank Omran overdraft

299. The Respondents asserted that the Expert failed to recognize certain checks shown in Shah Goli's books to have been issued in August and September 1978. The Expert stated at the Hearing that, although the Respondents' position seemed reasonable, he had not been able to verify this item, and therefore he excluded the checks. In the absence of sufficient evidence to the contrary, the Tribunal rejects the Respondents' request to revise the Expert's determination. The Tribunal observes that the copies of checks (all bearing the stamp "bounced back") submitted by the Respondents to the Tribunal on 8 June 1987 (see supra para. 252) relate to this request for adjustment.

14. Future collections

300. The Respondents request elimination of approximately Rials 74 million from the valuation on the ground that a reasonable businessman could not expect to collect this amount from apartment purchasers in the future, in respect of the 99 apartments closed before the valuation date. The Tribunal finds that the Respondents have not sufficiently explained or substantiated this request. Therefore, the Tribunal rejects the Respondents' request.

15. Soil removal and related land rental

301. Finally, with respect to the Respondents' request to make adjustments for soil removal and related land rental, the Tribunal notes that this request is similar to the Respondents' counterclaim 8. After carefully considering this counterclaim, the Expert concluded that it could not be deemed a liability of Shah Goli or the Project for the reason discussed in para. 240, supra, in connection with this counterclaim. The Tribunal sees no reason to reject the Expert's opinion in this respect.

IV. Decisions on the Amount of Future Revenues

302. The valuation method adopted by the Expert requires a determination of the total amount of revenues that a reasonable businessman purchasing the Project on 31 January 1980 would expect to receive from the completed Project. These revenues would be derived from sales and resales of apartments, sales of extra parking spaces, and sales of heavy duty construction equipment. Each of the sources of revenue is considered below.

1. Revenues from sales of apartments

a) Number of apartments available for sale or resale after 31 January 1980

303. The first key element in determining the revenue from sales of apartments is the number of apartments that would be available for sale after 31 January 1980. The Parties were largely in agreement as to the total number of apartments in the Project and the number which had been sold before the taking date. Major disagreements arose, however, as to the number of apartments which, although they had

initially been sold, would become available for resale because, inter alia, the persons who had bought them were among those who had left Iran permanently following the Islamic Revolution. That there were such persons is not disputed, but whether among them were Shah Goli apartment purchasers, and the number of apartments affected is in dispute, as is the question of whether those who left were in a position to complete their transactions from abroad or to assign their rights under the Apartment Purchase Agreements to others who remained in Iran. The significance of these questions is that it was expected that apartments which had not yet been sold and those that would become available for resale would be sold for more than the original amount due to rising price levels in an inflationary economy.

304. The reasons of the Expert, the Parties, and Coopers & Lybrand supporting their differing views on these questions are described in paras. 80-93, supra, and have been fully considered by the Tribunal. In the Tribunal's view, the precise total number of apartments that would be available for resale cannot be determined by accounting analysis or other valuation techniques. Rather, an assessment must be made concerning what various buyers of apartments would be likely to do in the light of the different social, economic, and political circumstances of each of those individuals.

305. In these uncertain circumstances, the Tribunal must step into the shoes of the hypothetical reasonable businessman who wished to buy the Project in January 1980 and make the assessment that it believes he would have been most likely to have made. After reviewing the entire record and the reasons advanced in support of various suggestions as to the number of apartments available for resale, ranging from zero to 600, the Tribunal concludes that a reasonable businessman purchasing the Project on 31 January 1980 would

consider that there would be a substantial number of apartments available for resale. However, in the light of the unresolved legal questions concerning the rights of all departing buyers to assign their apartment purchase agreements, and various other risks and uncertainties, the reasonable businessman would expect that the number would be less than the 600 used by the Expert in his valuation. Accordingly, the Tribunal finds that a downward adjustment must be made in the Expert's valuation with respect to future revenues from apartment sales. This adjustment, which results in fewer apartments being available for resale, requires a corresponding downward adjustment in costs because lower total sales fees and developer's costs and less refunds (see infra para. 307) would have to be paid.

306. Because this decision is based on the Tribunal's view of what a hypothetical buyer of the Project would likely have done, the Tribunal does not need to reach the question of whether the Respondents withheld evidence within their control and whether, if that occurred, the Expert was justified in accepting the figures suggested by the Claimant.

b) Refunds to purchasers whose apartments are resold

307. The Expert correctly recognized that Shah Goli had an obligation to make certain refunds to original buyers who did not complete their purchases. While noting the objection of the Respondents to the method by which the Expert calculated the total of these refunds (see supra para. 95), the Tribunal finds no reason for not accepting the Expert's accounting analysis of this matter. The Expert calculated the refunds, however, on the basis of the 600 apartments that he assumed would be available for resale. Inasmuch as the Tribunal has concluded that fewer than 600

apartments would be available, the Tribunal finds that the amount of the refund obligation must be correspondingly reduced.

c) Time of sale of apartments

308. The Expert assumed that a reasonable businessman who purchased the Project on 31 January 1980 would not immediately offer the apartments for sale, but, anticipating an upward price trend, would withhold them from the market until October 1980 when actual construction would begin after a nine-month period for remobilizing the necessary work force, equipment, and supplies. The Expert further assumed that, given the housing shortage in Tehran, purchasers would buy all available apartments in October 1980, when construction of the Project is resumed. Coopers & Lybrand agreed that construction could reasonably have been expected to resume in October 1980, but they considered that buyers would not come forward at that time and that, therefore, the Expert in his valuation had taken revenue from these sales into the income stream too soon. See supra para. 99. While it may be correct, as the Respondents argued, that there is no "concrete" evidence on this point (see supra para. 98), the Tribunal accepts that it was necessary to make an assessment and that the Expert's conclusion on this point was reasonable.

d) Price of apartments sold before 31 January 1980

309. The Expert, not having access to the original sales contracts for the apartments sold before 31 January 1980, calculated their prices on the basis of his assessment of a revenue analysis prepared by the Claimants' outside auditors for its 31 December 1978 audit and also on a revenue forecast by the Respondents, as of 31 January 1980. See supra para. 101. He decided not to base these prices on

copies of Apartment Purchase Agreements submitted to him by the Respondents because he was unable to verify them. His insistence upon relying only on data that he could verify was one of his basic valuation principles because, as he explained in his Report, he felt it necessary to base his conclusions on "information which the Parties have not had any possibility to edit or doctor to suit their own purpose." See supra para. 7. The Tribunal holds that the Expert was justified in following this principle.

310. The Expert added 10 percent to the prices of apartments sold before 31 January 1980 by applying an escalation clause in the Apartment Purchase Agreements which was triggered by a rise in construction costs that he found had actually occurred. He considered that a so-called Procès-Verbal, dated 28 June 1979, cancelling the 10 percent escalation clause, was not binding on Shah Goli because of the circumstances in which it was signed. See supra paras. 102-03. The Respondents, however, took the position that the Procès-Verbal was a valid waiver by Shah Goli of its right to receive the 10 percent escalation. See supra paras. 106-07.

311. Coopers & Lybrand took a realistic view of the issue, considering that the final outcome of the legal issue of whether the escalation clause was valid could not have been known on 31 January 1980, and, therefore, a reasonable businessman would have been "wary" of counting on collecting the 10 percent escalation.

312. This is not a question capable of precise determination by accounting analysis, because it is dependent on various factors, including the possible outcome of future legal proceedings that might be instituted, future housing market conditions and political conditions. In these circumstances, the Tribunal again places itself in the shoes of the reasonable businessman and considers that he

would have expected to collect the 10 percent escalation amount on some, but not all, sales. The Tribunal therefore finds that the amount of revenue from apartments sold before 31 January 1980 must be reduced accordingly.

e) Price of apartments sold after 31 January 1980

313. To carry out his valuation, the Expert had to consider not only revenues to be received from apartments sold before 31 January 1980, but also what a reasonable businessman would expect to receive from sales of apartments that remained unsold at that time as well as from those apartments that became available for resale. To calculate the total revenues from such sales the Expert adopted what he called his "main line" method. Then he applied a different method to "cross-check" the results he had reached.

314. Upon analysis and stripped to its essentials, the Expert's "main line" method was quite simple. The Tribunal now summarizes what it considers to be the principal elements of this aspect of the Expert's valuation process. First, he looked for the last sales before 31 January 1980 that were representative and for which he was able to establish the prices. Then he adjusted the price of those sales upward to reflect inflation until October 1980, when, according to his premises, the apartments would be offered for sale. The last sales before 31 January 1980 for which he was able to establish the prices were in the Fall of 1979, but he considered that those prices had been depressed by exceptional circumstances of a temporary nature and, therefore, were not representative. He found that Fall 1979 prices were significantly lower than the last previous sales for which he could establish prices, which were in April 1978. He attributed this drop in price to several factors that he found had affected apartment buyers in the Fall of

1979. He identified these factors as including, inter alia, (i) "unrest" that diminished investor confidence due to "uncertainty concerning the intentions and ambitions of those newly in power;" (ii) buyer fear that construction might be delayed by Shah Goli's problems with Iranian banks and "the American owner's disinclination to supply additional capital" in the prevailing circumstances; and (iii) buyer uncertainty because completion of the Project was "heavily dependent on the authorities who basically were unfavorably disposed toward American companies."

315. Another major element of the Expert's "main line" method is his conclusion that the particular factors which had depressed Shah Goli apartment prices in the Fall of 1979 would not be faced after 31 January 1980 by an Iranian buyer, who, according to the Expert's valuation premises, would purchase the Project from the Claimants. Thus, the Expert observed that although the "upheaval in Tehran and the chaotic situation during the revolutionary year forced the construction industry to slow down," various new "economic and political steps [had been] taken for the revival of the housing industry." He noted, in particular, that the Government's actions to nationalize and reorganize the banks "came into effect in October 1979 and helped to restore public confidence in the banking system and to create a gradual return of economic stability and funding facilities for the construction sector." He based this conclusion on a 1980 report by Bank Markazi, the Iranian central bank, that described "the gradual return of economic stability and public confidence in the banking system" following nationalization of the banks, and also on a report by Mr. Manochehr Farhang,[36] that provided statistical data

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[36] The report prepared by Mr. Farhang was entitled "Economic and Investment Climate in Iran, 1977-1980, With Special Emphasis on Housing and Construction Industry."

demonstrating improving economic conditions in the housing market in the relevant period. He concluded that the gradual resurgence of investor confidence, coupled with the increasing demand and short supply in the housing market which he noted in his Report, would result in higher prices for Shah Goli apartments after January 1980.

316. The Expert, having eliminated the sales made in the Fall of 1979 as being unrepresentative, chose as a base the price of sales in April 1978. He found that these sales were "the best available yardstick," in light of the fact that he had been unable to establish prices of sales from that date until the Fall of 1979.[37] Then, noting a history of consistently rising prices for Shah Goli apartments (except for the sales made in the abnormal conditions of the Fall of 1979) and considering that apartment prices were "on the upturn," he adjusted the prices upward from April 1978 to October 1980 on the basis of "expected price movements in the general price trend as expressed in the Consumer Price Index." See supra paras. 109-12.

317. The Expert explained his reasons for choosing to utilize the Consumer Price Index (see supra paras. 131-32), although the Claimants had urged a different index (see supra para. 132), and the Respondents and their experts suggested that yet a third index was more appropriate (see supra paras. 134-36).

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[37] The procedure of using a "valuation reference period antedating the vesting date" is similar to that approved in a nationalization case by the European Court of Human Rights (in plenary session) in its Judgment of 8 July 1986 in the Case of Lithgow and Others where, in order to avoid distortion, the valuation was based on average prices in "a period [of six months] which was as recent as possible and was also not untypical." (Paras. 133, 131)

318. The Claimants accepted the Expert's view, although they considered that it reflected "undue conservatism." The Respondents and Coopers & Lybrand objected vigorously on a number of grounds which are summarized above. See supra paras. 116-30.

319. The Tribunal has considered all sides of this contested issue, reviewing in detail the Report, the submissions of the Parties and their expert advisors, as well as the arguments advanced at the Hearing. The Tribunal concludes that the valuation premises employed by the Expert in this connection were professional and reasonable. In particular, the Tribunal agrees with the Expert's use of sales in 1978 as a base because Fall 1979 sales were unrepresentative, in view of the fact that the prices paid for Shah Goli apartments at that time were influenced by exceptional circumstances that were not expected to continue after 31 January 1980. While it is recognized that the general changes in social, political, and economic conditions created by the Islamic Revolution would endure following 31 January 1980, these must be distinguished from the temporarily uncertain circumstances that affected buyers in the unsettled wake of the Revolution. The Tribunal further notes that both the Expert and Bank Markazi stated that the return of economic stability that followed the bank nationalization which became fully effective in October 1979 was "gradual"; thus, it appears that, while the effects of these improvements could be foreseen by the end of January 1980, their impact would not be broadly reflected in prices until some months later. Moreover, the Tribunal agrees with the Expert's conclusion that certain subsequent events after January 1980 "could not have been foreseen by a potential investor" at the taking date (e.g., the U.S. Embassy crisis lasted longer than could have been expected, the outbreak of the Iraqi war, and greater inflation than could have been foreseen). The Tribunal also agrees with the Expert's use of the Consumer Price Index, a choice in which his own

analysis was supported by a report from Mr. Farhang. Accordingly, the Tribunal adopts the Expert's calculation of the prices of apartments to be sold after 31 January 1980, except for his application of the 10 percent escalation clause (see supra para. 312). In view of this conclusion, the Tribunal need not reach the issues raised by the Expert's alternative "cross-check" method.

2. Revenues from sales of extra parking spaces

320. There is also much disagreement over whether the future revenues of the Project should include amounts to be received from the sale of parking spaces in excess of those assigned to each apartment purchaser. The disagreements stemmed from conflicting versions of the apartment purchase agreements submitted by the Parties, uncertainties as to the number of extra parking spaces, and as to whether municipal regulations permitted sale of any extra parking spaces, as well as whether the Claimants' past conduct indicated that it was contemplated that extra parking spaces could be sold. See supra paras. 141-44.

321. The Expert explained that the issue could have been definitively resolved if he had been given access to the actual apartment purchase agreements as he had requested. He noted that in the absence of the agreements, the documentary evidence was "very limited." Basing his calculations on 1979 estimates, and extrapolating his conclusion from four apartment sales which had included sales of extra parking spaces, he concluded that all extra parking spaces would be sold and added the revenue from such sales to the total future revenues used in his valuation model. The Respondents advanced a number of reasons in opposition to the Expert's conclusion on this point. See supra paras. 141-43. Coopers & Lybrand agreed with the

Respondents, and, additionally, expressed the opinion that, in view of all the circumstances, a reasonable businessman would have excluded any potential revenue from the sale of extra parking spaces.

322. The Tribunal accepts the Expert's determination, based on probative evidence, that extra parking spaces could be sold, and his accounting method for calculating the value of extra parking spaces. The Tribunal considers, however, that a reasonable businessman, recognizing the uncertainties in the situation, would have prudently expected fewer sales of extra parking spaces than indicated in the Expert's calculation. The Tribunal therefore finds that the Expert's valuation should be adjusted accordingly. This adjustment, which results in fewer extra parking spaces being available for sale, requires a corresponding downward adjustment in costs because lower total sales fees and developer's costs would have to be paid.

3. Revenues from sales of heavy duty construction equipment

323. There is no dispute that heavy duty construction equipment used in the Project was owned by Shah Goli on 31 January 1980 and was intended to be sold when the buildings had been completed. The Expert determined the amount of proceeds of such expected sales. The Respondents considered that the figure arrived at by the Expert was too high, largely due to allegedly improper maintenance of the equipment and lack of market demand for such equipment in Tehran. The Report addressed the quality of maintenance and stated that members of the Expert's staff actually saw some of the equipment in operation during their visit to Tehran. The Tribunal gives preponderant weight to the Expert's determination on this subject, in view not only of the careful accounting methods that he employed in verifying the existence of the equipment and in calculating its

depreciated value, but also because of the fact that his staff observed it on the construction site. As the International Court of Justice said in the Corfu Channel Case we "cannot fail to give great weight to the opinion of the Experts who examined the locality in a manner giving every guarantee of correct and impartial information."[38] Accordingly, the Tribunal accepts the value of the heavy duty construction equipment calculated by the Expert.

V. Decisions on the Amount of Future Costs

324. The Expert's valuation method properly requires that, in addition to determining the future revenues of the Project, it is also necessary to calculate the future costs to complete it. The principal element of these future costs is the expense of construction which must be considered along with the related factor of the amount of time needed to complete the work. These factors will be considered first in this Section, followed by discussion of several other, but comparatively smaller, cost components.

1. Costs of construction

325. The Expert encountered great difficulties in attempting to arrive at the amount of the future construction costs to complete the Project. Contemporaneous cost information that he believed Shah Goli's temporary manager would have compiled was not made available to him despite repeated requests. The information that he received from both Parties could not, in his opinion, be verified and much of it related to matters extraneous to his ultimate valuation premises. Finding that information submitted to him lacked "objectivity, validity and relevance," he sought

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[38] Corfu Channel Case (U.K. v. Alb.), 1949 I.C.J. 4, 20.

other data upon which he could rely. Consequently, he used as his starting point a report on costs to complete the Project that had been prepared in September 1979 by Mr. Neghabat, an Iranian professional who had been retained by the Alavi Foundation in connection with an effort to secure financing for the Project from Bank Omran. Mr. Neghabat had worked closely with executives of Starrett in preparing his report.

326. The Tribunal considers that the Expert exercised sound judgment in basing his cost projections on Mr. Neghabat's report. In reaching this decision the Tribunal is fully mindful of the position of the Respondents (see supra paras. 154-57, 165-71), but considers the Expert's opinion on this subject to be more persuasive. As the Expert observed, Mr. Neghabat's report was prepared before the taking date but in reasonably close proximity to it so that it reflected conditions existing on 31 January 1980. Also, as the Expert noted, its preparation was undertaken for serious financial reasons entirely unrelated to the present litigation. Moreover, the Expert considered that Mr. Neghabat's report was comprehensive and reliable, and noted that Mr. Neghabat had "devoted a good deal of work to producing a realistic basis for the assessments of future costs to complete the Project." The Tribunal finds that the Expert by virtue of his professional background and experience was particularly well-qualified to judge the quality of Mr. Neghabat's work. (For a full exposition of the Expert's reasons, see supra paras. 150-53.) In this context, the Tribunal accepts the Expert's view that Mr. Neghabat necessarily included an inflation factor in his cost projections after 31 January 1980. The Tribunal also concludes, as did the Expert, that Mr. Neghabat was aware of the extent to which contracts with subcontrators and suppliers were binding and took that factor into account in assessing future costs. In this connection, the Tribunal observes that the Expert stated that he relied on Mr.

Neghabat because he was, inter alia, "well-informed as to Shah Goli's subcontractors and suppliers" and "was cognizant of the cost situation of those services and materials which were to be put into the Project."

327. The Expert, having decided to use the Neghabat report as the "most reliable point of departure," correctly considered that it was necessary to make several adjustments in accordance with his valuation premises. The Tribunal finds that these adjustments were appropriate and reasonable in amount. The adjustments consisted of (i) a 15 percent upward adjustment for inflation from September 1979 through January 1980, (ii) a 3 percent upward adjustment as a contingency reserve for unforeseen expenses or miscalculations, and (iii) a 5 percent upward adjustment as a reserve for costs to fulfill Shah Goli's guarantees to apartment purchasers that their apartments would meet quality specifications.

2. The time required to complete construction

328. There was general agreement that the first step necessary in completing the Project would be to remobilize the labor force and supervisory staff which had largely disbanded when work stopped in 1979, and to collect whatever needed equipment and supplies were no longer at the building site. The Expert, after receiving the comments of the Parties, determined that 9 months would be needed for such remobilization, although he had suggested a shorter period earlier in his investigation. Coopers & Lybrand agreed with this figure.

329. While there was no dispute as to the length of the remobilization period, the Expert, the Respondents, and Coopers & Lybrand did not agree on the time needed for actual construction. The Expert, on the basis of his own

analysis and an interview with a Starrett construction executive familiar with the Project, reached the opinion that construction would require 15 months, following the 9-month remobilization period. It appears that earlier estimates by the Claimants of 27 months, or more, were made in the light of the financing problems with Bank Omran and Alavi Foundation and other unusual operating problems existing in 1979, which the Expert considered would no longer prevail in October 1980 when he anticipated that construction would recommence. In the opinion of Coopers & Lybrand, at least 24 months would be required for construction following the 9-month remobilization period.

330. The Tribunal shares the view that construction often takes longer than predicted, but the Tribunal believes -- with certain hesitation -- that the Expert has sufficiently taken into account the possibility of delay. First, he allowed 9 months for remobilization, a phase in which delays are likely to occur. These 9 months, as he emphasized at the Hearing, must be considered in conjunction with the 15 months he estimated for construction time. Second, the possibility of unforeseen delay is one of the risks that the Expert took into account in his valuation calculations and in the rate of risk element of the discount rate that he established for use in applying the discounted cash flow method. Accordingly, there is no need for the Tribunal to lengthen the period to complete construction, thereby duplicating protections that the Expert has already built into his valuation.

3. Other costs

331. The Expert's valuation took account of a number of other categories of cost. As to land costs, there appeared to be no difference of views. See supra para. 158. While there was disagreement as to general and administrative costs (see supra paras. 173-74), the Tribunal adopts the

Expert's accounting assessment as set forth in para. 172, supra.

332. The Expert expressly referred to the Tribunal the question of whether the future costs of the Project should be increased on account of certain utility charges related to water, electricity, telephone, sewerage, and gas supply. See supra para. 176. On this question the Expert stated that, in his opinion, "the available information does not provide sufficient guidance to enable me to decide on which of the Parties' understandings on this question is correct. Against this background, I have not included any costs for utility charges in my cost projection." In this circumstance, the Tribunal must again step into the shoes of the reasonable businessman, and consider whether he would have expected to collect these utility charges from the apartment purchasers or whether the Project would have had to bear those costs. The Tribunal finds that a reasonable businessman purchasing the Project on 31 January 1980 would have expected to collect the utility charges from the purchasers of some, but not all, of the apartments. The remaining Project costs must be increased accordingly. As to other closing costs, there was no dispute.

333. The Expert considered the question of what expense for sales fees should be included in the remaining costs of the Project after 31 January 1980. First, he determined to include no costs for fees to the Azarnia companies for the same reasons as he decided that such fees should not be reflected as "deferred costs" on Shah Goli's balance sheet of 31 January 1980. See supra para. 285. The Tribunal agrees with the Expert for the reasons set forth in its decision with respect to the balance sheet. Id. Second, the Expert concluded that the new buyer of Shah Goli would after 31 January 1980 require services of a sales company, which he considered would cost 2 percent of cash revenue from sales of apartments and parking spaces after 31 January

1980. See supra para. 181. The Tribunal finds no basis for rejecting the Expert's determination.

334. Similarly, with respect to developer's costs (see supra para. 183) and a future collection fee to Bank Omran (see supra para. 188), the Tribunal, while recognizing the positions of the Respondents, finds that the Expert's decisions with respect to these items were reasonable and sees no compelling ground on which to alter them.

335. Finally, the Tribunal adopts the Expert's distribution of remaining costs over time. In determining this issue, the Expert made various valuation assumptions for reasons which he explained. While the Respondents asserted that those assumptions were incorrect and pointed to certain items which they considered inconsistent in the Expert's approach, the Tribunal does not find sufficient basis to overturn the Expert's judgment on a matter within his area of expertise.

VI. Decisions on the Discount Rate

336. In order to apply the DCF method, it is necessary to determine the discount rate to be used to account for (i) the expected rate of inflation, (ii) the so-called "real rate of interest" which, inter alia, reflects the value of money in hand as compared with receipts in the future, and (iii) the rate of risk involved in the transaction in the light of all relevant circumstances. The Expert explained his basis for arriving at a discount rate of 28 percent (see supra paras. 195-97). The Tribunal has considered the views of the Expert as well as those of the expert witnesses presented by the Respondents who, for varying reasons, suggested discount rates of 30 percent and 45 percent and also proposed different methods for applying other additional risks in the valuation. The Tribunal finds that this is a matter involving complex aspects of valuation.

According to the principles which the Tribunal adopts for determining the weight to be given to the Report (see supra paras. 263-75), the Tribunal adopts the 28 percent discount rate proposed by the Expert, since this is within his area of expertise and sufficient reasons have not been shown that his opinion is contrary to the evidence in the record or to generally recognized valuation practices.

VII. Decisions on the Valuation of Shah Goli

337. Summarizing the decisions on valuation thus far, it can be seen that the Tribunal largely accepts the positions of the Expert, except that it finds that a reasonable businessman purchasing the Project on 31 January 1980 would have expected that revenues would be lower because (i) there would have been fewer than 600 apartments available for resale, but this reduction in revenues would be partially offset by a lower obligation to pay refunds to the original purchasers of resold apartments (see supra para. 307); (ii) the 10 percent escalation of the purchase price would be collected in some, but not all, apartment sales (see supra paras. 290, 312); and (iii) there would be fewer extra parking spaces sold than assumed in the Expert's valuation (see supra para. 322). These lower revenues would be partially offset by lower costs for sales fees and developer's costs. See supra paras. 305, 322. Also, the Tribunal finds that the reasonable businessman would have expected that costs would be higher because utility charges would not be collected in all apartment sales, but only in some. See supra para. 332. Additionally, Shah Goli must be considered to have less liabilities chargeable against it, thereby increasing its value, in light of the Tribunal's decision in paras. 356, 357, infra, that certain amounts considered by the Expert to be loans to Shah Goli did not in fact constitute loans as of the taking date.

338. These matters are not capable of precise quantification because they depend on the exercise of judgmental factors that are better expressed in approximations or ranges. In these circumstances, the Tribunal must make an overall determination of a global amount, taking account of the nature of the forecasts involved and the various interrelationships between them. This is, indeed, what reasonable businessmen typically do when finally determining the price they are willing to pay in a complex transaction. Therefore, the Tribunal again steps into the shoes of the hypothetical reasonable businessman, and will consider what he would have done, faced with inevitable uncertainties yet wanting to conclude a purchase.

339. In this respect, the practice of the Tribunal supports the principle that when the circumstances militate against calculation of a precise figure, the Tribunal is obliged to exercise its discretion to "determine equitably" the amount involved. Economy Forms Corp. and Islamic Republic of Iran, Award No. 55-165-1, p. 21 (14 June 1983), reprinted in 3 Iran-U.S. C.T.R. 42, 52. See also Sola Tiles, Inc. and Government of the Islamic Republic of Iran, Award No. 298-317-1, para. 65 (22 April 1987); William J. Levitt and Islamic Republic of Iran, Award No. 297-209-1, para. 48 (22 April 1987); Thomas Earl Payne and Government of the Islamic Republic of Iran, Award No. 245-335-2, para. 37 (8 August 1986). It is generally recognized that international tribunals have a wide margin of appreciation to make reasonable approximations in such circumstances.

340. The Tribunal recognizes that both the Expert and Coopers & Lybrand indicated that they have available computer programs that could be used to recalculate the value of Shah Goli in the event the Tribunal modifies certain of the Expert's underlying assumptions. The Tribunal considers, however, that there are two reasons not to refer the matter back to the Expert for further

calculation. First, it appears doubtful that the existing computer model could readily accommodate a global assessment such as the Tribunal has made. Second, and most significantly, any reference of this matter back to the Expert at this late stage of the proceedings would require an additional report from him. Fairness would demand that the comments of the Parties be invited, and they would probably wish the opportunity to consult their own expert advisers. Such prolongation of the already long proceedings in this Case is unwise and unwarranted.[39]

341. Also, the Tribunal is mindful that at the Hearing the Claimants, while accepting the Report "in its entirety," requested that in the event the Tribunal determined to reduce any elements of the valuation that the Expert had resolved in their favor, the Tribunal should in fairness reconsider at least six matters that the Expert had decided against them for reasons that the Claimants believed to have been mistaken. The Tribunal is loath, however, to re-open and evaluate points that the Claimants had unreservedly accepted prior to the Hearing. The Tribunal finds merit in the Respondents' position that they believed that matters which the Expert had decided against the Claimants were no longer issues in the Case in view of the Claimants' overall acceptance of the Report, and consequently the Respondents were unprepared to argue them orally at the Hearing. While the Tribunal does not accept the Claimants' request on this point, it observes that the Claimants' presentation at the Hearing on issues as to which the Expert rejected their views was helpful in demonstrating his even-handed approach to the valuation and thereby added to the weight that the Tribunal gives to the Report.

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[39] Cf. Gruen Associates, Inc. and Iran Housing Company, Award No. 61-188-2, p. 19 (27 July 1983), reprinted in 3 Iran-U.S. C.T.R. 97, 107 ("the cost of [referring to an

(Footnote Continued)

342. Based on the foregoing, the Tribunal determines that the combined effect of the items referred to in para. 337, supra, requires that the gross profit of Shah Goli be reduced by a global amount of Rials 350 million. Accordingly, the Tribunal finds that Shah Goli's gross profit should, for purposes of the valuation, be considered to be Rials 27 million, rather than Rials 377 million as the Expert determined.

343. In converting from one currency to another, the Tribunal agrees with the Expert's use of the official exchange rate prevailing on 31 January 1980 of Rials 70.6 to $1. See supra para. 220. The Tribunal notes that its practice in this respect is to apply the official exchange rate prevailing on the date of taking, provided it is satisfied, as it is in this Case, that the claimant would, in the normal course of events, have repatriated the funds if they had been received on the date they were due. See, e.g., Tippetts, Abbett, McCarthy, Stratton and TAMS-AFFA Consulting Engineers of Iran, Award No. 141-7-2, p. 17 (29 June 1984). See also Blount Brothers Corp. and Government of the Islamic Republic of Iran, Award No. 215-52-1, p. 31 (6 March 1986).

344. The Tribunal's next task is to modify the valuation to take into account the adjustments that the Tribunal determines should be made in order to determine the value of Shah Goli in the Claimants' hands. To do this, the Tribunal adopts the valuation methodology employed by the Expert as described in paras. 203-16, supra. Only one aspect of this methodology is in dispute, namely, the Expert's application of the corporate income tax rate and withholding tax rate established by the Double Taxation

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(Footnote Continued)
expert] in money and time seems of doubtful wisdom . . . .").

Treaty between Iran and the Federal Republic of Germany. The Expert applied the Treaty because Starrett Housing GmbH, the owner of the majority of the shares of Shah Goli, was a German company. On balance, the Tribunal adopts the Expert's approach on this technical matter.

345. In accordance with the Expert's valuation methodology, from Shah Goli's gross profit the Tribunal must subtract corporate income tax, the value of the minority share not owned by the Claimants,[40] and withholding tax. This results in an amount due to the Claimants of Rials 16,460,000:

Shah Goli	Rials Millions
Gross profit	27
Corporate income tax (10%)	(2.7)
	24.3
Minority share (20.3%)	(4.93)
	19.37
Withholding tax (15%)	(2.91)
Net Profit	16.46

The Tribunal accepts the Expert's calculation in which he rounded the Claimants' share of the remaining share capital to Rials 1 million. See supra para. 215. Thus, the Tribunal determines that as of 31 January 1980 the Claimants' share of the value of Shah Goli would be Rials 17.46 million, or $247,308.

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40 In this respect, the Tribunal finds that the minority shares of Shah Goli totalled 20.3 percent since this was the percentage of the shares of the company not owned by Starrett Housing GmbH. See supra para. 211.

VIII. Decisions on Starrett Construction

346. As discussed above, the Claimants organized Starrett Construction in Iran to perform certain management functions relating to the Project. Starrett Housing International, Inc. owned 100 percent of Starrett Construction through its wholly-owned subsidiary N&B Unternehmensberatung GmbH, a company incorporated in the Federal Republic of Germany. Under the terms of a contract with Shah Goli, Starrett Construction was to receive 11.75 percent of the cash proceeds from the sales of the apartments as a management fee. The Claimants intended that part of their profit on the Project would be received through this management fee.

347. The Expert first determined that Starrett Construction was entitled to receive this fee from Shah Goli until 31 January 1980. The Expert calculated the value of Starrett Construction in the Claimants' hands in the same manner as he had done for Shah Goli. See supra paras. 217-18. He apparently did so on the basis that the value of Starrett Construction in the Claimants' hands was equivalent to the net profit the Claimants would have received from the management fee since the management fee was Starrett Construction's only income producing asset.

348. The Respondents argued that the Claimants were not entitled to recover the value of Starrett Construction since no expropriation claim had been brought in respect of Starrett Construction. See supra para. 236. Thus, since the Expert had not specifically calculated the Claimants' net profit from the management fee, the Respondents contended that the Claimants could not receive an award in this respect.

349. At the outset, the Tribunal notes that the Starrett Construction management fee related to the

Claimants' "right to manage the Project" which the Tribunal held in the Interlocutory Award had been taken by the Government of Iran. See supra para. 3. In particular, the Tribunal instructed the Expert to "give his opinion as of 31 January 1980 on the net profit of the Project, if any, [the Claimants] would reasonably have received through the management fees pa[i]d to Starrett Construction." See supra para. 4. The Tribunal must decide, however, on what basis the Claimants may be compensated for this net profit. In this respect, the Tribunal agrees with the Respondents to the extent that the Claimants are not entitled to compensation for their share of the value of Starrett Construction as such. The Tribunal makes this decision, inter alia, on the ground that the value of Starrett Construction is not necessarily equivalent to the net profit that the Claimants would have received through the management fee paid to Starrett Construction by Shah Goli.

350. The Tribunal agrees with the Expert, however, that the unpaid portion of the management fee not yet offset by outlays, which the Expert calculated to be $4,762,847,[41] must be considered to be a loan from Starrett Construction to Shah Goli. See supra para. 231. Shah Goli was contractually obligated to pay this amount to Starrett Construction for services rendered by Starrett Construction for the purposes of the Project. Under these circumstances, the Tribunal decides that the Expert was correct to treat

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[41] The Tribunal notes that the chart summarizing the loans in para. 38, supra, which was taken from the cover letter accompanying the Expert's Report, indicates in item a.4. that Shah Goli owed Starrett Construction a loan of $4,762,847. This amount was apparently taken from Starrett Construction's adjusted balance sheet and represents the amount that the Expert determined Starrett Construction was currently owed by Shah Goli as of 31 January 1980. In other sections of his Report dealing with loans, however, the Expert stated that the amount owed by Shah Goli to Starrett Construction was $5,503,046.

this amount, which had in fact not been paid to Starrett Construction as of 31 January 1980, as a loan for which Shah Goli was responsible on that date. The Tribunal notes that according to the Expert's valuation this loan was booked as a liability of Shah Goli. The Tribunal also notes that according to the Expert's valuation there would be sufficient funds to pay this loan, along with Shah Goli's other loans, after the sale of the Project before distributing any equity to the Claimants. The global assessment made in para. 337, supra, does not change this result.

351. The Tribunal further decides that the Claimants are entitled to receive compensation for the net profit they would have received from this amount. Included in the Claimants' property rights in Shah Goli and the Project that the Government took was the Claimants' right to the net profit they would have received as a result of this amount being paid to Starrett Construction. In other words, the Claimants are not entitled to the loan amount itself, but rather only to the net profit they would have received after Starrett Construction had been paid this amount.

352. As to the particular amount to which the Claimants are entitled, it can be seen from the Expert's calculations that the Claimants' net profit from the fee would be less than the total amount of the loan. This is so because after Starrett Construction would have received this amount, various costs, taxes, etc. would have to be deducted from the total amount before the Claimants would receive any payment. Thus, in his valuation of Starrett Construction, the Expert offset against the management fee he determined Starrett Construction was entitled to receive from Shah Goli certain Project costs incurred by Starrett Construction, as well as the corporate income tax and withholding tax it would have had to pay. He determined that the resulting net amount was the amount that the Claimants would have received

from Starrett Construction. The Claimants agreed with the Expert in this respect, and they did not seek the total amount of the management fee owed by Shah Goli to Starrett Construction. Rather, they sought only the net amount of Starrett Construction's value upon liquidation as determined by the Expert, namely Rials 201 million. The Tribunal thus considers it reasonable under the circumstances to award the Claimants Rials 201 million. The Tribunal therefore concludes that Starrett Housing International, Inc.[42] is entitled to receive $2,847,025 (Rials 201 million) as the net profit it would have received after payment of the loan to Starrett Construction.

IX. Decisions on Loans

353. The Tribunal also asked the Expert to determine how to take into account certain loans made for the purposes of the Project. After a careful and in-depth study of this subject, the Expert in his Report concluded that the Claimants had made loans, the proceeds of which had been expended for the purposes of the Project, to Shah Goli totalling $34,256,044 and that Starrett Housing Corporation had made a loan to Starrett Construction of $684,297. See supra paras. 38, 225-31. While the Claimants accepted the Expert's calculation and treatment of the loans in question (see supra para. 232), the Respondents for various reasons asked the Tribunal to reject the Expert's conclusions on loans (see supra paras. 233-36).

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[42] As discussed above, Starrett Housing International, Inc. is the proper Claimant in this respect since it owned 100 percent of N&B Unternehmensberatung GmbH, a company incorporated in the Federal Republic of Germany, which in turn owned 100 percent of Starrett Construction. See supra paras. 258, 262. See also SeaCo, Inc. and Islamic Republic of Iran, Interlocutory Award No. ITL 61-260-2, para. 11 (20 June 1986); Blount Brothers Corp. and Government of the Islamic Republic of Iran, Award No. 215-52-1, p. 9 (6 March 1986).

354. In approaching this aspect of the valuation, the Tribunal must address three basic questions: (i) whether the Claimants made loans for the purposes of the Project, (ii) if so, what was the amount of such loans, and (iii) whether the Claimants are entitled to compensation for such loans. The first two questions are discussed in this Section B.IX and the third is included in the analysis in Section B.X immediately below.

355. In his valuation, the Expert examined two types of loans -- those based on written loan agreements and those based on disbursements effected by the Claimants in the United States for purposes of the Project. As to both types of loans, the Expert conducted a thorough study and recognized those loans which he concluded had been spent for purposes of the Project. The Expert was quite rigorous in this regard. With respect to the loan agreements, for example, he recognized only those amounts which he could verify had been spent on the Project regardless of the stated amount of the written loan agreement. With respect to disbursements, he recognized only those disbursements he could verify or reasonably infer had been made for costs related to the Project. These disbursements were made for items such as payments to suppliers and subcontractors and salaries for expatriate employees. Such disbursements, he concluded, had been made for the benefit of the Project and should be accounted for as loans. Finally, the Expert determined that all the loans he recognized were loans and not share capital because, inter alia, the funds in question were treated as loans for accounting purposes and no new shares had been issued with respect to such funds.

356. Based on the record before it, the Tribunal agrees with the Expert that the Claimants made certain loans for the purposes of the Project. With respect to the written loan agreements, the Tribunal is satisfied that the Expert's scrutiny revealed those loans which had actually been

expended on the Project. With respect to the disbursements made in the United States on behalf of the Project, the Tribunal generally agrees with the Expert's reasons for treating such disbursements as loans and concludes that they gave rise to an obligation of repayment. The Tribunal, however, finds that such disbursements constituted loans only to the extent that they (i) are reasonably verifiable as having been made for the purposes of the Project, and (ii) were on or before 31 January 1980 foreseeable as loans. Concerning the loan of Rials 77,700,000 granted to Starrett Construction, but included by the Expert in his Report in the liabilities of Shah Goli (see supra para. 38 n. 12), the Tribunal can reach no conclusion other than that the loan was, in reality, referable to the Project and was adequately verified by the Expert. With respect to the verifiability of the remaining loans, the Tribunal is satisfied that such disbursements have been sufficiently verified by the Expert as having been made for the purposes of the Project, except that the Tribunal is not persuaded that the disbursement from Starrett Housing Corporation to Starrett Construction of $684,297 has been sufficiently explained or substantiated as having been made for the purposes of the Project. In particular, the Tribunal notes that the Expert did not attach to his Report any documentation supporting this amount, as he had done for the other disbursements. With respect to foreseeability, the Tribunal notes that a total of $596,507 out of the remaining disbursements were made after 31 January 1980, and the Tribunal finds that it has not been sufficiently demonstrated that such disbursements were foreseeable as loans as of that date.

357. With respect to the loans from Starrett Housing Corporation to both Shah Goli and Starrett Construction totalling $215,000 which are referred to in para. 227, supra, the Expert addressed this matter in his Notes which he distributed at the beginning of the Hearing. In his Notes, he stated that, after reviewing the Respondents'

Comments filed on 15 December 1986, he verified that the amounts in question had been taken into account both in the trial balance sheets of the two companies and as loans and correspondingly as liabilities on their adjusted balance sheets. Thus, he said, if an adjustment were to be made, these amounts would no longer be considered loans from Starrett Housing Corporation to each company, and each company's liabilities would be correspondingly reduced. The Expert stated, however, that he could not then recommend that such an adjustment be made because, in accordance with his valuation premises, the Claimants had not yet had an opportunity to comment on this matter. After reviewing the record before it, the Tribunal finds that an adjustment must be made in this respect. The Tribunal makes this decision in light of the fact that the Claimants had an opportunity at the six-day Hearing to comment on this matter, but did not do so, and that the Expert verified that these amounts had been taken into account both as loans and as liabilities on the trial balance sheets. The Tribunal finds, however, that the portion of the $215,000 amount attributable to Starrett Construction must be deemed to be included in the $684,297 disbursement which the Tribunal has found in para. 356, supra, does not constitute a loan from Starrett Housing Corporation; thus, no further adjustment need be made with respect to this portion.[43] With respect to the portion attributable to Shah Goli, the Tribunal decides that this amount, namely $64,528, may not be considered a loan from Starrett Housing Corporation.

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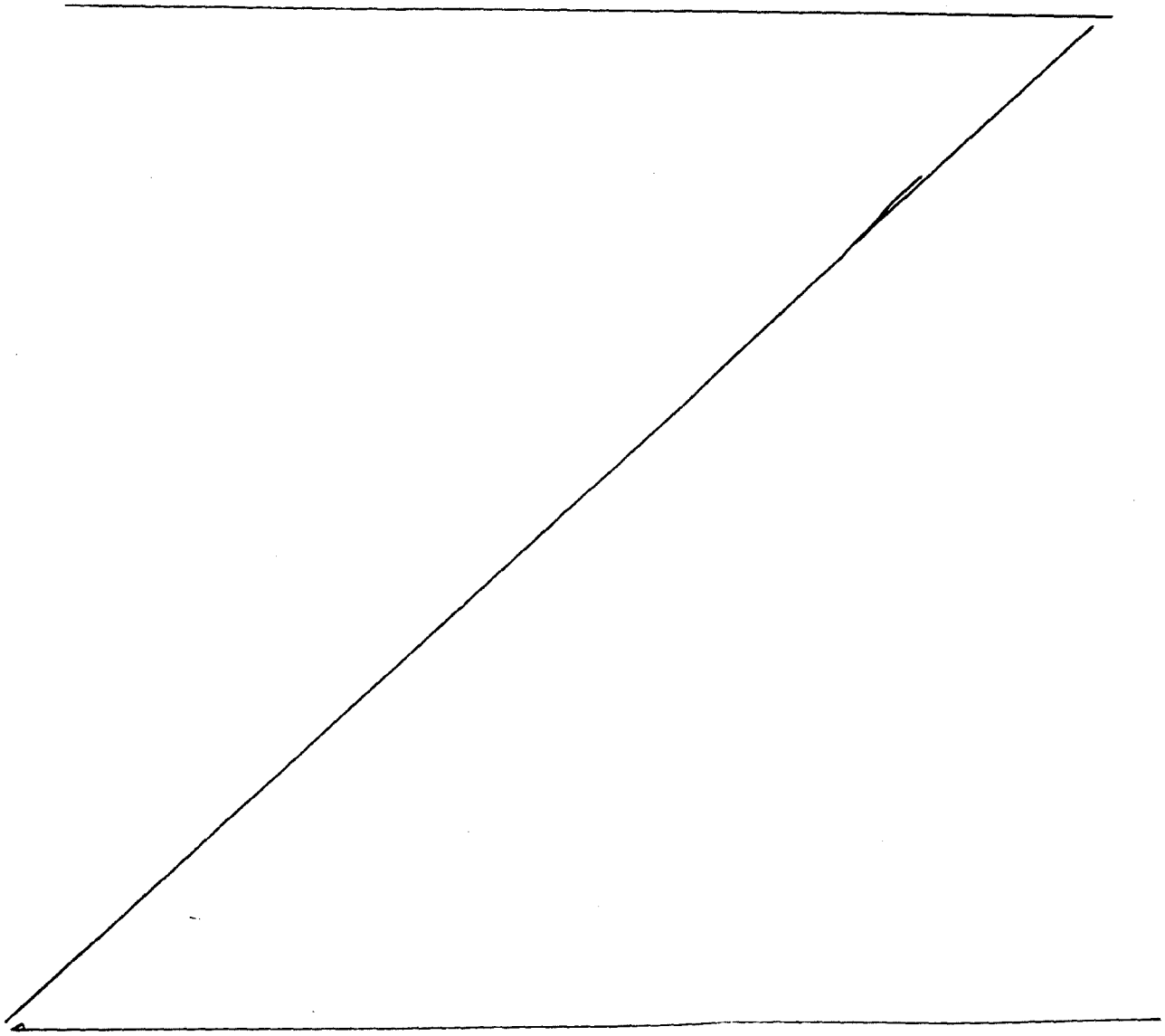
[43] The Tribunal bases this decision on the ground that since the portion of the $215,000 amount attributable to Starrett Construction does not correspond to the relevant disbursements made by Starrett Housing Corporation for Starrett Construction which the Tribunal has found to be a loan (see supra para. 38 n. 12; see infra para. 359 n. 42), this portion must be deemed to be included in the disbursement of $684,297 which the Tribunal has found was not sufficiently explained or substantiated as having been made for the purposes of the Project (see supra para. 356).

358. Further, the Tribunal agrees with the Expert that the funds in question were indeed loans, and not share capital, especially in the complete absence of any indication in the record of this Case which evidenced a treatment of such funds as anything other than loans. Also, the Tribunal sees no reason to disturb the Expert's conclusion that interest should not be charged on these loans because such interest had not been approved by the shareholders of Shah Goli as required by Iranian law. The Tribunal notes that, although Coopers & Lybrand considered that the loans in this Case should be treated as equity, even they acknowledged that "it is not uncommon for many international companies to fund projects in other countries through intercompany loans on which interest is charged at a nominal rate or not at all."



359. Based on the above, the Tribunal finds that as of 31 January 1980 the following Claimants had made loans for the purposes of the Project in the following amounts:

	Claimant	Dollars
1.	Starrett Housing International, Inc.	12,942,044 (238,670)[44]
		12,703,374
2.	Starrett Systems, Inc.	196,700
3.	Starrett Housing Corp.	1,916,734[45] 1,100,566[46] (357,837)[47] (64,528)[48]
		2,594,935
4.	Starrett Housing GmbH	18,100,000
	TOTAL	33,595,009

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[44] Disbursements not foreseeable as loans on 31 January 1980. See supra para. 356.

[45] Loan from Starrett Housing Corporation to Shah Goli after making the adjustment suggested by the Expert at the Hearing. See supra para. 38 n. 12.

[46] Loan from Starrett Housing Corporation to Starrett Construction after making the adjustment suggested by the Expert at the Hearing. See id.; supra para. 38 n. 12. The Tribunal notes that this amount is distinct from the $684,297 which the Tribunal has held may not be considered a loan. See supra para. 356.

[47] Disbursements not foreseeable as loans on 31 January 1980. See supra para. 356.

[48] Amount already taken into account as a liability to the trial balance sheet of Shah Goli. See supra para. 357.

X. The Claimants' Entitlement to Compensation with Respect to Loans

360. The Tribunal must next determine whether the Claimants are entitled to compensation with respect to the loans. In particular, the Tribunal must decide whether such loans were part of the Claimants' property rights taken by the Government on 31 January 1980.

361. It is a well-settled rule of customary international law that a taking of one property right may also involve a taking of a closely connected ancillary right. See, e.g., R. Higgins, The Taking of Property by the State: Recent Developments in International Law, in 176 Receuil des Cours 259, 323, 340 (1982). For example, in the Chorzow Factory Case[49] the Permanent Court of International Justice held that the expropriation by Poland of a factory also constituted the expropriation of the patents and contracts of the factory's management company because the factory and its management company were so closely interrelated. Further, in the Norwegian Shipowners Claims[50] the tribunal found that a taking of rights ancillary to those formally taken had occurred by holding that the Norwegian shipowners' contracts had been taken in addition to their ships. More generally, international tribunals have also recognized that taking of contract rights, like taking of tangible property, is compensable. See, e.g., Amoco International Finance Corporation and Government of the Islamic Republic of Iran, Partial Award No. 310-56-3, paras. 106-09 (14 July 1987); Rudloff Claim, 9 R. Int'l Arb. Awards 244, 250 ("[T]he taking away or destruction of rights

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[49] Chorzow Factory Case (Ger. v. Pol.), 1927 P.C.I.J. ser. A, No. 7 at 44 (Judgment of 25 May 1926).

[50] Norwegian Shipowners Claims (Nor. v. U.S.), 1 R. Int'l Arb. Awards 307 (1922).

acquired, transmitted and defined by a contract is as much a wrong, entitling the sufferer to redress, as the taking away or destruction of tangible property."); Shufeldt Claim, 2 R. Int'l Arb. Awards 1079, 1097 (1949) ("There cannot be any doubt that property rights are created under and by virtue of a contract.") See also R. Dolzer, Eigentum, Enteignung und Entschädigung im geltenden Völkerrecht 171-72 (1985).

362. In the present Case, the Tribunal broadly defined the Claimants' property rights which were taken by the Government on 31 January 1980. See supra para. 3. The Tribunal finds that these rights include the Claimants' right to be repaid the loans made for the purposes of the Project. The Claimants' property rights in the Project were intimately linked to their rights to be repaid such loans. This conclusion is inescapable in light of the facts that the loans recognized by the Tribunal were made by the Claimants for the purposes of the Project and that they were used for that purpose. At least by the date of the taking it became apparent that the Claimants would not be repaid such loans and that their rights to repayment had been taken by the Government. The Tribunal, therefore, holds that among the property rights taken by the Government on 31 January 1980 were the Claimants' rights to be repaid their loans made on behalf of the Project. Thus, the Claimants are entitled to be compensated for the expropriation of these rights in the amounts listed in para. 359, supra. This includes rights with respect to loans which, according to the relevant contract provisions, were due to be repaid after 31 January 1980; the value of such rights, however, must be discounted to their value as of the date of taking (see infra para. 369).

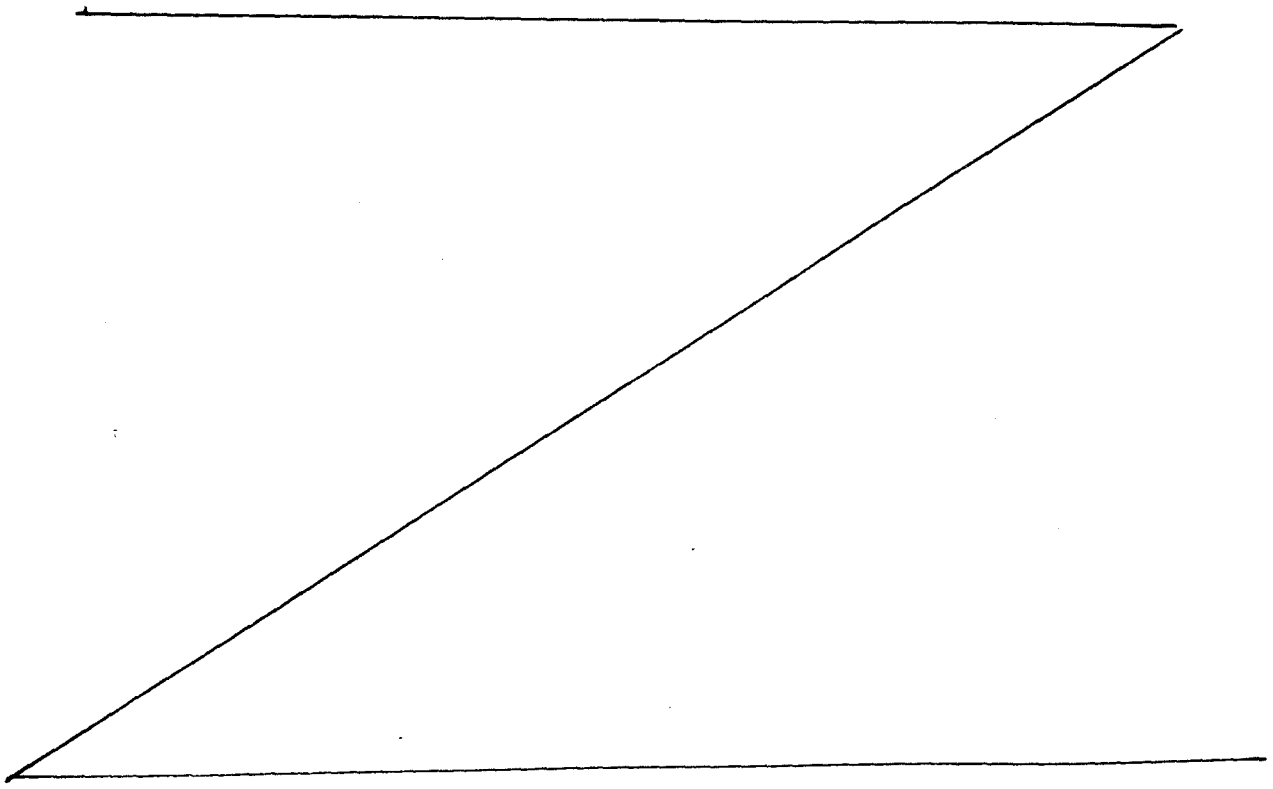
XI. Counterclaims

363. The Respondents brought a counterclaim for specific performance by Starrett Housing Corporation of its guarantee of Shah Goli's performance under the Basic Project Agreement. The Respondents also brought eleven other counterclaims for particular amounts, related to Shah Goli or the Project. As discussed above (see supra paras. 239-41), the Expert examined all these eleven counterclaims. To the extent that he considered that the matters to which they related were liabilities of Shah Goli or the Project, he reflected them in the valuation as adjustments to Shah Goli's trial balance or as remaining costs of the Project, calculating the amounts of such liabilities as at 31 January 1980. The Tribunal accepts this treatment of the counterclaims by the Expert, including his decision to calculate interest costs only up to the date of taking, if found payable with respect to a matter covered by a counterclaim.

364. The Expert did not make, however, any adjustments to his valuation in respect of four of the eleven counterclaims. With respect to counterclaim 3, concerning liabilities to apartment purchasers arising from delays in the Project's completion, the Tribunal agrees with the Expert that, absent any proof of such claims having actually been raised by apartment purchasers, there is no basis for such liabilities. With respect to counterclaim 8, concerning rent for a plot of land on which excavated soil had been left by Shah Goli and transportation costs to remove that soil, the Tribunal concurs with the Expert's conclusion, based on the evidence, that Shah Goli had been permitted by the landowner to place the soil on the land adjacent to the two Project sites, and that the Respondents did not sufficiently demonstrate that Shah Goli had been requested by the landowner or any official authority to remove the soil. See also supra para. 301. With respect to counterclaim 9, concerning space rents and demolition

charges in respect of concrete production workshops and construction material warehouses, the Tribunal notes that a contract existed between Aranco and Shah Goli, according to which the latter would buy concrete from the former. This contract did not impose any other obligation on Shah Goli than payment of the concrete it would buy from Aranco. The Respondents did not present any other basis from which it could be concluded that this counterclaim existed as a debt of Shah Goli or that it was reflected on its balance sheet on the date of taking. Consequently, the Tribunal dismisses this counterclaim. With respect to counterclaim 10, concerning compensation for amounts spent by the Respondents in providing infrastructure and installations, the Tribunal determines that there is insufficient proof that either Shah Goli or Starrett Construction had any responsibility for payment of such costs.

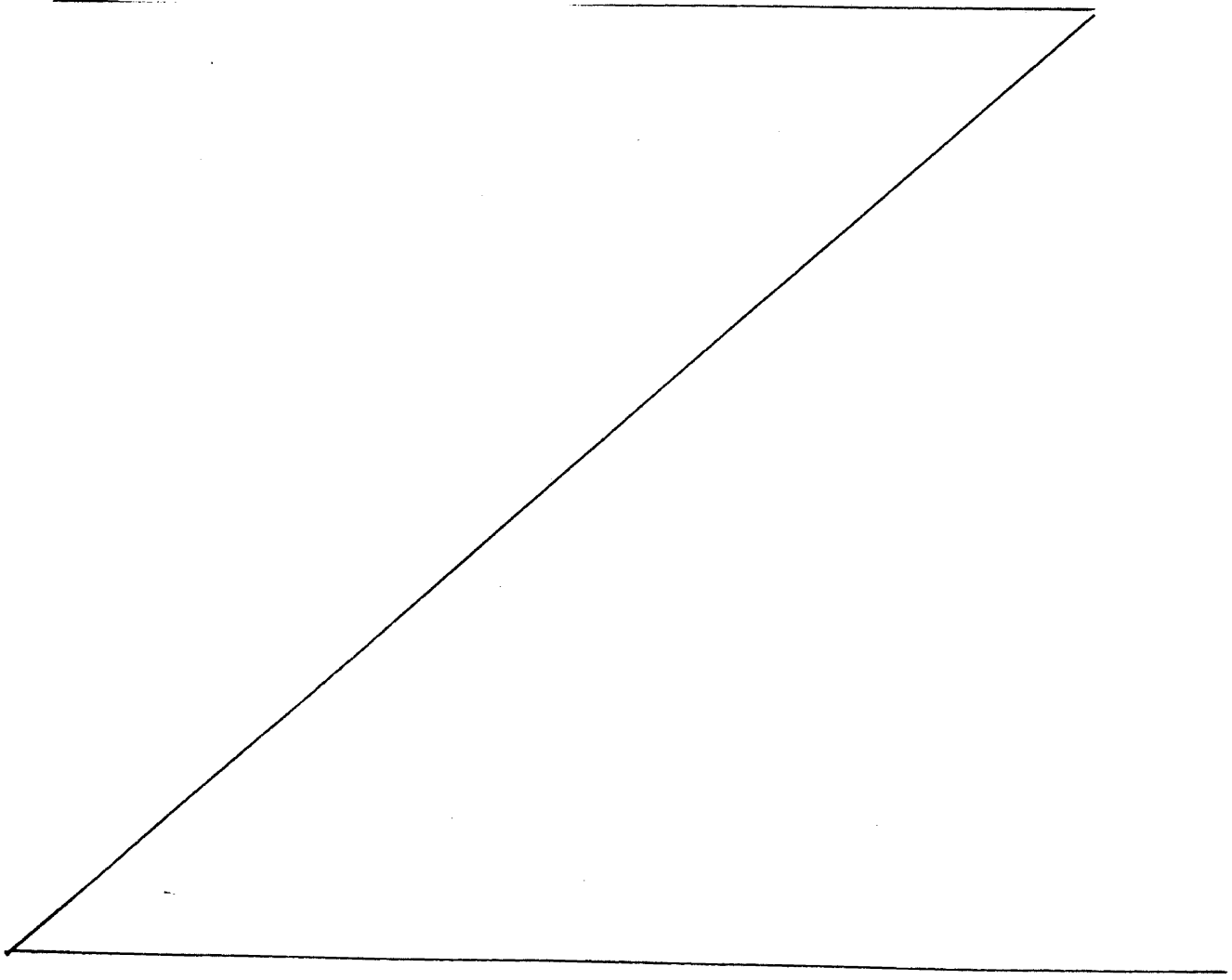
365. The remaining counterclaim is for specific performance by Starrett Housing Corporation of its guarantee of Shah Goli's performance under the Basic Project Agreement. The Tribunal's determination to decide this Case on the basis that Starrett's rights have been taken renders this issue moot.



XII. Summary

366. Based on the above, the Tribunal decides that the value of the property rights taken by the Government for which the Claimants are entitled to compensation is as follows:

		Dollars
1.	Share of the value of Shah Goli	247,308
2.	Net profit from Starrett Construction management fee	2,847,025
3.	Total loans	33,595,009
		36,689,342



367. The amounts that each Claimant is entitled to are as follows (see supra para. 259):

Claimant			Dollars
1.	Starrett Housing International, Inc.		
	a)	Share of the value of Shah Goli	247,308
	b)	Net profit from Starrett Construction management fee	2,847,025
	c)	Loans	
		i) Starrett Housing International, Inc.	12,703,374
		ii) Starrett Housing GmbH	18,100,000
			33,897,707
2.	Starrett Systems, Inc.		
	a)	Loan	196,700
3.	Starrett Housing Corp.		
	a)	Loans	2,594,935

XIII. Interest

368. The Claimants requested interest on the total amount they sought on a compound basis at the average annual interest rate charged by banks to the Claimants from 31 January 1980. See supra para. 244. The Respondents requested that no interest be awarded, or that if interest was awarded that it should be interest at a simple rate of not more than six percent accruing from the date of the Award. See supra para. 245.

369. The Tribunal first determines that the Claimants are entitled to an award of interest on the value of the property rights taken by the Government. See supra para.

367. The Tribunal further determines that such interest shall accrue from 31 January 1980, the date of taking,[51] except with respect to that portion of the loans from Starrett Housing GmbH to Shah Goli which involved installment payments after that date. See supra para. 359. Out of the total loans from Starrett Housing GmbH to Shah Goli, $14,600,000 was made between November 1977 and August 1978 pursuant to a written loan agreement. According to this loan agreement, Shah Goli was to repay this loan in nine equal quarterly installments on the next to last day of January, April, July, and October in each year, beginning on 30 January 1980. Since all but the first of these installments were to be made after the date of taking, Starrett Housing GmbH could not reasonably expect to receive on 31 January 1980 the entire amount of this loan which, together with the other loans in this Case, have been considered free of interest (see supra para. 358). Therefore, the Tribunal determines that, except for the first installment, interest shall accrue on the amount of each installment (i.e., $1,622,222.22) from the date on which each installment was due. It ought to be added that this holding concerns only the calculation of the compensation for the taking of certain loans. This compensation became due on the date of taking and was therefore, in the view of the Tribunal, in

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51 Accord Tippetts, Abbett, McCarthy, Stratton and TAMS-AFFA Consulting Engineers of Iran, Award No. 141-7-2, p. 17 (29 June 1984); INA Corporation and Government of the Islamic Republic of Iran, Award No. 184-161-1, p. 16 (13 August 1985).

Judge Lagergren adds the observation that, while the award of interest from the date of the taking in the present Case is in accordance with the Tribunal's practice, this does not necessarily reflect the existence of any general obligation in current international law to make payment of compensation immediately on the date of taking. Accordingly, it might be reasonable to allow interest to run only from the date or dates (in case of payments in installments) on which the compensation was to be paid.

all respects outstanding as of 19 January 1981 as required by Article II, paragraph 1, of the Claims Settlement Declaration. Thus, the Tribunal is always free to establish a date from which interest on such compensation shall be awarded, even if it were a date after 19 January 1981. The Tribunal also notes that the awarding of interest from the date on which each installment was due has the same general effect of discounting the amounts of such installments to their value as of the taking date. See supra para. 362.

370. With respect to the rate of interest, the Tribunal cannot agree to the Claimants' request to calculating interest on a compound basis. As noted in Sylvania Technical Systems and Government of the Islamic Republic of Iran, Award No. 180-64-1, p. 31 (27 June 1985), the Tribunal has not made any award of interest on a compound basis. The Tribunal is not persuaded to depart from that practice in this Case.

371. As to the rate of interest to be applied, the Tribunal finds that a simple rate of 8.5 percent is reasonable in this Case.

XIV. Costs

372. Taking into account the circumstances of this Case, the Tribunal decides that each Party shall bear its own costs of arbitration, including its one-half share of the Expert's fees.

D. AWARD

373. For the foregoing reasons,

THE TRIBUNAL AWARDS AS FOLLOWS:

a) The Respondent THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF IRAN is obligated to pay the Claimant STARRETT HOUSING INTERNATIONAL, INC. the sum of Thirty-Three Million Eight Hundred Ninety-Seven Thousand Seven Hundred Seven Dollars (U.S. $33,897,707). The Respondent THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF IRAN is also obligated to pay the Claimant STARRETT HOUSING INTERNATIONAL, INC. simple interest at the rate of 8.5 percent per annum (365-day basis) on $20,919,929.24 from 31 January 1980 up to and including the date on which the Escrow Agent instructs the Depositary Bank to effect payment out of the Security Account. The Respondent THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF IRAN is also obligated to pay the Claimant STARRETT HOUSING INTERNATIONAL, INC. simple interest at the rate of 8.5 percent per annum (365-day basis) on:

i) $1,622,222.22 from 29 April 1980;
ii) $1,622,222.22 from 30 July 1980;
iii) $1,622,222.22 from 30 October 1980;
iv) $1,622,222.22 from 30 January 1981;
v) $1,622,222.22 from 29 April 1981;
vi) $1,622,222.22 from 30 July 1981;
vii) $1,622,222.22 from 30 October 1981; and
viii) $1,622,222.22 from 30 January 1982

up to and including the date on which the Escrow Agent instructs the Depositary Bank to effect payment out of the Security Account.

b) The Respondent THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF IRAN is obligated to pay the Claimant STARRETT SYSTEMS, INC. the sum of One Hundred Ninety-Six Thousand Seven Hundred Dollars (U.S. $196,700), plus simple interest at the rate of 8.5 percent per annum (365-day basis) from 31 January 1980 up to and including the date on which the Escrow Agent instructs the Depositary Bank to effect payment out of the Security Account.

c) The Respondent THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF IRAN is obligated to pay the Claimant STARRETT HOUSING CORPORATION the sum of Two Million Five Hundred Ninety-Four Thousand Nine Hundred Thirty-Five Dollars (U.S. $2,594,935), plus simple interest at the rate of 8.5 percent per annum (365-day basis) from 31 January 1980 up to and including the date on which the Escrow Agent instructs the Depositary Bank to effect payment out of the Security Account.

d) These obligations shall be satisfied by payment out of the Security Account established pursuant to paragraph 7 of the Declaration of the Government of the Democratic and Popular Republic of Algeria of 19 January 1981.

e) To the extent that counterclaims 1, 2, 4, 5, 6, 7, and 11 relate to matters that the Tribunal has determined are liabilities of Shah Goli or the Project, they are reflected in the amounts awarded; to the extent they relate to matters that the Tribunal has determined are not liabilities of Shah Goli or the Project, they are dismissed. Counterclaims 3, 8, 9, 10, and the counterclaim for specific performance are dismissed.

f) Each Party shall bear its own costs of arbitration.

g) The Secretary-General of the Tribunal shall dispose as follows of the balance of the amounts advanced by the Parties for the fees of the Expert and presently held in a special account of the Tribunal: (i) one-half jointly to the Claimants STARRETT HOUSING CORPORATION, STARRETT SYSTEMS, INC. and STARRETT HOUSING INTERNATIONAL, INC., and (ii) one-half to the Respondent THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF IRAN.

h) This Award is submitted to the President of the Tribunal for the purpose of notification to the Escrow Agent.

Dated, The Hague
14 August 1987

Gunnar Lagergren
Chairman
Chamber One

In the name of God

Koorosh-Hossein Ameli

Howard M. Holtzmann
Concurring Opinion

Having fully participated in the deliberation of the Case and in the drafting of the Final Award, and having been informed of the time when the Final Award would be signed at the Tribunal, Mr. Ameli failed to sign.

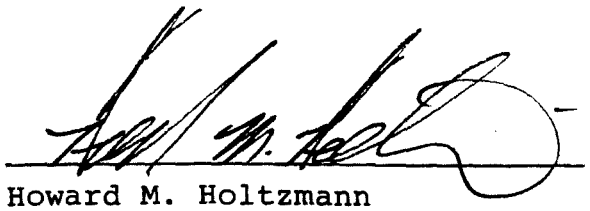
Gunnar Lagergren
Chairman

Howard M. Holtzmann

Additional Statement by Judge Holtzmann Concerning Judge Ameli's Refusal to Sign the Final Award

After the Hearing in this Case on 16-24 January 1987, all three arbitrators met for deliberations at the following times: 24 January, 9-13 March, 29 June-3 July, 20-23 July and 11-14 August 1987. Copies of successive drafts of the Final Award were circulated among all of the arbitrators, and were discussed in detail. The changes in the last draft that resulted in the text of the Final Award, as signed, were also reviewed and discussed by all of the arbitrators.

During the deliberation meetings held on 20-24 July 1987, the time for signing the Final Award was scheduled for 5 p.m. 13 August 1987. The last week of deliberations began on 11 August 1987. During these meetings the time for signing the Final Award was re-scheduled to 4 p.m. on 14 August 1987 in order to permit further time for deliberations. All arbitrators were invited to attend and sign at that time. On the afternoon of 14 August all three arbitrators met and reviewed a few final proposed changes in the last draft. At the conclusion of that meeting, Judge Ameli stated that he refused to sign the Final Award.



Howard M. Holtzmann