PERU
SHELTER SECTOR ASSESSMENT
VOLUME II: TECHNICAL REPORT

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GLOSSARY OF ACRONYMS

BANVIP	Banco de la Vivienda del Peru (Peruvian Housing Bank)
BCH	Banco Central Hipotecario (Central Mortgage Bank)
BCR	Banco Central de Reserva (Central Reserve Bank)
BM	Banco de Materiales (Materials Bank)
CAPECO	Camara Peruana de la Construccion (Peruvian Chamber of Construction)
ENACE	Empresa Nacional de Edificaciones (National Building Company)
FONAVI	Fondo Nacional para la Vivienda (National Housing Fund)
INADUR	Inatituto Nacional de Desarrollo Urbano (National Urban Development Institute)
INE	Instituto Nacional de Estadistica (National Statistics Institute)
ININVI	Instituto Nacional de Investigacion y Normalizacion de la Vivienda (National Institute for Housing Research and Standards)
INP	Instituto Nacional de Planificacion (National Planning Institute)
MEF	Ministerio de Economia y Finanzas (Ministry of Economy and Finance)
SEDAPAL	Servicio de Agua Potable y Alcantarillado de Lima (Lima Water Supply and Sewerage Service)
SENAPA	Servicio Nacional de Agua Potable y Alcantarillado (National Water Supply and Sewerage Service)

INTRODUCTION

This document is the second of two volumes making up the 1985 Peru Shelter Sector Assessment. Volume I, Policy Issues, presents an "agenda" of shelter policies that is to serve as a basis for discussions between AID and the Government of Peru. This document, the Technical Report, contains documentation and analysis to support the policy agenda.

Two years ago, AID prepared a shelter policy document[1] that focused on reducing subsidies, shifting public sector shelter investment to low-cost solutions, improving management of public shelter programs, clarifying institutional roles, strengthening participation of the private sector in housing, and improving infrastructure delivery and financing. The present update shows that all of these are still central issues and that, in general, the problems of the Peruvian shelter sector have worsened. In addition, persistent and growing inflation has pushed "maintenance of value" in housing finance to the forefront of the policy agenda.

For this shelter sector assessment, the key policy issues have been grouped into four categories. These categories reflect broad institutional and financial concerns that touch almost all the organizations and groups involved in housing. The four policy categories are:

- Limiting and focusing public sector shelter programs.
- Facilitating increased private sector efforts in shelter delivery.
- Improving the efficiency of financial intermediation in the shelter sector.
- Establishing an ongoing public-private shelter policy formulation and analysis capability.

A brief review of the principal shelter policy issues follows. A chart summarizing the policy issues and recommendations appears as Appendix I to this document.

A. LIMITING AND FOCUSING PUBLIC SECTOR SHELTER PROGRAMS

1. Nature and Targeting of Public Shelter Programs

- The use of FONAVI funds for construction of single-family houses, apartments, or core units should be terminated.
- Public sector shelter programs should be focused exclusively on low-cost solutions, especially Sites and Services, infrastructure upgrading, and building materials loans.
- The Government should also support a large-scale program of lots without services ("lotes tizados") in principal cities.

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[1] PADCO Inc., Shelter Sector Policy Issues in Peru, Vols. I and II, Agency for International Development, January 1983.

2. Subsidies

- Every effort should be made to reduce subsidies as much as possible. Prospective subsidies in shelter programs should be estimated quantitatively in advance and their feasibility and desirability evaluated.
- Interest rates on shelter loans should be raised as much as possible consistent with maintenance of affordability.
- The true value of land, labor, materials, and cost escalations during execution must be reflected in pricing shelter solutions.

3. ENACE

- The Government should consider terminating ENACE's involvement in housing and folding its contracting and supervision functions in shelter into BANVIP and/or delegate them to other institutions involved in projects.
- As a prelude to the above, studies should be conducted on the best means of liquidating ENACE's housing portfolio.

4. Shelter Cost Reduction

- Feasibility studies are needed to obtain concrete proposals for changing design specifications to lower shelter costs.
- Norms should be changed to legitimize the introduction of progressively increasing levels of services over time in line with affordability.
- Costly construction delays can be reduced by overhauling and streamlining the structure for construction permitting.
- The regulatory system for public construction projects should be reformed to provide incentives to builders for rapid, on-time performance.

5. Urban Infrastructure

- The Government must begin immediately to explore ways of reaching agreement with external donors on new financing for basic infrastructure, especially water supply. This will require a willingness to raise tariffs to more realistic levels and to improve management of infrastructure institutions.
- An investment strategy must be devised for the water supply sector, which has been underfunded and which lacks a coherent set of policies and objectives.

B. FACILITATING INCREASED PRIVATE SECTOR EFFORTS IN SHELTER DELIVERY

1. Mutuales (Mutual Savings and Loan Associations)

- To help the Mutuales survive financially, the Government should consider allowing them to accept savings in dollars and loosening interest rate controls.

- Further assistance to the Mutuales should require implementation of an indexing mechanism (See C.1 below).
- Legislation should be passed permitting the Mutuales to institute management reforms and legitimize their de facto entry into non-housing markets.

2. Tenure Regularization

- Because obtaining legal tenure promotes private investment in house upgrading and opens access to formal credit, stimulating the financial market, the Central Government and municipalities must continue efforts to speed up and extend the legalization of tenure in informal settlements, especially outside Lima.

3. Reduced Public Sector Role

- Elimination of high-cost public housing projects and reduction (with eventual elimination) of subsidies for public sector programs will help put the private sector on more competitive footing with respect to pricing and provide greater opportunities for private initiative to occupy positions in the housing market.

4. Legal and Administrative Reform

- Streamlining the project review and approval process as recommended in A.4 above should also make it easier for private developers and builders to function as providers of shelter.
- A review of laws and regulations governing subdivisions, building codes, and land use should be carried out to identify and eliminate ambiguity, overlaps, and contradictions that hamper private initiative.

5. Rental Housing

- Legislation, which has been pending for two years, to provide incentives for increasing the supply of rental housing through private investments, should be approved.

C. IMPROVING THE EFFICIENCY OF FINANCIAL INTERMEDIATION IN THE SHELTER SECTOR

1. Maintenance of Value

- Some form of indexing must be implemented within the housing finance system and, ideally, other parts of the whole financial system, to lessen the decapitalizing effects of inflation. In the short run, a limited indexing system must be installed in loans for key shelter programs. Partial and experimental indexing arrangements may be tried initially, with the best results forming the basis for wider application. In the longer term, all deposits and loans should be indexed.

- A formula must be devised promptly to revise the income base for FONAVI contributions to prevent FONAVI from decapitalizing itself out of existence. For the medium/long run, the feasibility of reforming FONAVI's interest rate and contributory structure to enable it to borrow (leverage) other resources should be examined.

2. Banco de la Vivienda (Housing Bank)

- BANVIP should substantially improve its management control over FONAVI.
- BANVIP's role as a setter of financial policy in the housing sector should be restored. It should have the capacity to allocate resources among programs and the responsibility for maintaining financial soundness in housing sector operations.
- The Bank should phase out its direct lending and move towards operating strictly as a second-tier financing organization.

3. Banco de Materiales (Materials Bank)

- The BM must improve internal financial controls and limit operating costs.
- The BM should also attempt to reach greater numbers of lower-income families with "Type C" loans that do not require a mortgage or employment guarantee.

4. Banco Central Hipotecario (Central Mortgage Bank)

- BCH should be provided with flexibility in setting its financial operating policy to allow it to compete successfully in the savings market (e.g., opening to dollars; decontrol of interest rates).
- BCH's indexing system should be revised to maintain the affordability of loans and avoid additional delinquencies.

D. ESTABLISHING AN ONGOING PUBLIC-PRIVATE SHELTER POLICY ANALYSIS AND FORMUALTION CAPABILITY

1. Housing Policy Group

- Consideration should be given to creating a high-level Housing Policy Group for the shelter sector. This group would be independent and consist of high-ranking representatives of key government agencies and private organizations.

2. Technical Secretariat

- The Housing Policy Group should be supported by a permanent Technical Secretariat consisting of a small number of high-quality specialists in various fields.
- The Secretariat should be independent and report directly to the Housing Policy Group.

3. **National Housing Plan**

- The Housing Policy Group could be made responsible for producing a short/medium term housing plan emphasizing policies, regulations, and programs designed to create an appropriate framework for public and private shelter activities.

4. **Alternative Structure**

- If the above ideas are not feasible, it may be desirable to establish technical policy analysis units for shelter in one of the government agencies and also in one of the private sector organizations.
- Seminars could be held to bring together public and private representatives to discuss issues and to prepare joint recommendations. Ad hoc public-private commissions could be established to deal with particular issues.

Background data and details on these issues are given in the present document. It is organized into four chapters: I. Economic Situation and Financial System (including the construction sector's role in the economy); II. Housing Demand and Affordability; III. Housing Institutions and Housing Finance; and IV. Regulatory Issues and Physical Standards.

CHAPTER I

ECONOMIC SITUATION AND FINANCIAL SYSTEM

A. INTRODUCTION

Peru's recent socioeconomic evolution provides a framework for examining the country's current economic situation. The term generally applied to the current economy is "structural inflation", which implies that the country is suffering from a lack of income-generating capacity, at least via formal economic channels. This means that the management of the whole system of productive sectors, mechanisms and institutions is increasingly inefficient.

While recognizing that such wide-ranging structural problems exist, we must also take into consideration:

- That the system as a whole is inefficient, with a few productive sectors coexisting with a majority of deficient ones.
- That the explanations and solutions for the situation can be found only in the economic arena.

The 1968-85 period can be divided into three stages:

- First military period (1968-75)
- Second military or transition period (1975-80)
- Current democratic process (1980-1985)

The critical heart of the matter is that these three sequential stages in time correspond to different political and economic realities. Each stage addresses different issues of national identity and offers contrasting solutions to basic economic problems. The inevitable incongruity of this process would in principle require sufficient time between each stage to bring about a transition in which the negative tendencies were eliminated and substituted with positive ones, enabling these to take hold. In practice there has not been the time or means or perhaps even the ability to do this.

The last general elections represented a fundamental political change. There was an attempt to bring immediate change to other areas as well, such as the economy. An inward, import-substitution orientation was replaced by a more market-and export-oriented approach. However, the elasticity of structures to change is not always immediate, and positive results sought in a hurry have generated new problems. Thus, "structural inflation" is in part the result of an internal inconsistency in economic policy, in which vestiges of old structures coexist with new, contradictory approaches.

There now exist in Peru: 1) economic and monetary criteria encouraging for open and free markets, 2) productive and monetary structures for state planning, and 3) elements of a closed, self-sufficient economy. The theoretically leading role of the private sector, despite its recent momentum, still has to coexist and sometimes compete with an enormous public enterprise sector.

The long absence of mechanisms of action characteristic of a representative democratic system have influenced the activity of the current government, which has had to maintain and sometimes even strengthen patterns of state control of the economy, in contradiction to its own philosophical tendencies.

The reality of these general observations is shown in:

- Anarchical legal and regulatory systems, which have resulted in loss of the meaning of rule of law. In economic terms, this causes a serious lack of confidence in the "rules of the game" which are necessary for efficient private and public sector planning. Insecurity leads to inefficiency or "dropping out" of the formal economic system.
- Disproportionate growth of the informal economic sector. This unprecendented growth has occurred in all sectors, including finance. It has been estimated that 40 percent of loans are negotiated in the informal sector, and that most of the country's population is linked to it. The magnitude of this phenomenon casts doubt on the viability of the current system to meet the needs of the people, who become more and more rooted in "informal normality." The gap between resources needed for public expenditures and the proportion of the population participating in generating these resources (through taxes, etc.) is gradually widening, creating a chronic fiscal weak point.
- Inefficient external borrowing since, in some cases, the programs financed have not been productive, either due to their inherent political content, their later substitution by other programs, or their failure to generate income.
- The Peruvian economy depends in large part on external trade for adequate growth. In the past, a favorable external sector made it possible to subsidize the inefficiencies and make them seem less extensive.

During 1983, the GDP had an unprecedented decline due to a drop in foreign trade, combined with natural disasters, both climactic and cyclical (the El Niño Current and its impact on the fishing industry), and the pressure of foreign debt.

These factors have reduced the operating capacity of the economy and have had a direct impact on sociopolitical matters. Within this framework, there are increased possibilities for growth from investment programs, such as AID's, but their implementation need to be studied more carefully than before in order to prevent such programs from becoming a short-term solution, which magnifies the problem in the medium and long term.

B. GENERAL BEHAVIOR OF THE ECONOMY

Total production levels of the various formal economic sectors of the GDP indicate a critical decline in 1983 (Appendix Tables A.1 and A.2). Among the Latin American countries, Peru had the greatest rate of decline (-12.2 percent) for the year.

The sectors most depressed and affected by the decline are fishing, mining, agriculture and manufacturing, i.e., the basic productive sectors. The only activities that noticeably exceed the average growth in current values (745 percent) are construction (962 percent) and government (1,258 percent), both as the result of a public expenditure program which was a positive step but did not prevent or diminish the overall decrease in output.

An examination of the GDP at constant levels highlights two polarizing tendencies in the economy: a 12 percent drop in manufacturing and an 18 percent increase in government.

The general decline is partially due to natural phenomena such as floods, droughts and earthquakes affecting the agriculture sector, and the effect of the El Niño current on the fishing industry. These factors account for about one-third of the decline. Another major external factor was the progressive drop in mineral prices, which affected the terms of exchange. Nevertheless, these two phenomena taken together still do not provide a full explanation for the crisis, which must also be explained by internal factors.

Much of the structural weakness of the Peruvian economy can be seen in the erratic growth of the past decade, as illustrated in Table I.1. Absolute growth in this 10-year period was 6.57 percent.

The behavior of construction (Table I.2) during this period reflects the government's participation in the sector, which performed well above average at the beginning of the period, and then dropped precipitously in 1983, more than any sector except the fishing industry. Such a marked cyclical behavior indicates once again how dependent construction is on other policies.

The decline in output inevitably means a lowering of the standard-of-living, particularly with high inflation, as shown in the Index of Consumer Prices (ICP):

YEAR	1979	1980	1981	1982	1983
ICP	66.7	60.8	72.7	72.9	125.1

The trend of GDP trend per capita in constant terms (Table I.3) shows that before 1982 the levels of income per capita barely topped the 1975 levels and were lower in 1983.

The loss of economic capacity to maintain the level of family income is also shown in the unemployment figures, and particularly underemployment:

	1979	1980	1981	1982	1983
Unemployment(%)	7.1	7.0	6.8	7.0	9.2
Underemployment(%)	51.4	51.2	47.9	49.9	57.1

Source: INE, Compendio Estadístico 1983

TABLE I.1

GDP EVOLUTION 1974-83
(Millions of constant 1973 Soles)

Year	GDP	Percent Change
1974	421,933	---
1975	441,073	4.5
1976	449,987	2.0
1977	449,738	<0.1>
1978	447,470	<0.5>
1979	465,939	4.1
1980	483,848	3.8
1981	502,663	3.9
1982	504,451	0.4
1983	449,646	<12.2>

Source: INE

TABLE I.2

CONSTRUCTION SECTOR EVOLUTION 1979-83
(Millions of Constant 1973 Soles)

	1979	1980	1981	1982	1983
Construction	14,170	16,833	18,693	19,123	15,107
Growth (1979=100)	100	119	132	135	107
Annual Growth (%)	---	19	33	2	(21)
a - GDP 1979=100	100	103.8	107.9	108.3	96.5
b - Const. 1979=100	100	118.7	131.9	134.9	106.6
b/a	---	1.14	1.22	1.25	1.10

Source: INE

TABLE I.3

GDP PER CAPITA EVOLUTION
(1973 Constant Values)

YEAR	GDP PER CAPITA	GROWTH (1973=100)
1973	25,355	100.0
1974	28,600	112.8
1975	29,092	114.7
1976	28,895	114.0
1977	28,126	110.9
1978	27,261	107.5
1979	27,654	109.1
1980	27,976	110.3
1981	28,311	111.7
1982	27,678	109.2
1983	24,036	94.8

Source: INE

According to these figures, in 1983 almost two-thirds of the population suffered some kind of unemployment. This not only directly affects the productivity of the economy in general, but also encourages and creates the foundation for the informal sector.

Short government work hours and low-wage levels seem to represent an agreement for coexistence with the informal sector, which, according to estimates, absorbs more than 40 percent of the working population (according to IPAE studies). Although this parallel economy mitigates the effects of the decline in the formal sector, there is no doubt that it creates major, restrictive distortions in overall economic performance. Any overall focus on macro or sectoral reactivation must take this into consideration.

In examining the reduced economic output, consideration must be given to the importance of labor disputes in decreased production and as a symptom of general work attitude. The INE has published the following data on strikes:

	1981	1982	1983
Number of strikes	871	809	643
Workers affected	856,915	512,263	785,545
Man-hours lost	19,974,000	22,571,000	20,300,000
Work days (8 hours)	2.4 million	2.8 million	2.5 million

Source: INE, Compendio Estadístico 1983

Although there is a decline in the number of disputes, there is no doubt that, in the present crisis situation, accumulated non-production has a multiplier effect on overall economic results and makes the economy more difficult to manage.

C. PUBLIC FINANCE

The preceding section mentioned how the real growth of the government sector during the 1979-83 period prevented an even greater decline in GDP. Government, as a generator of added value, depends on the performance of the rest of the economy and of the external sector, from where it receives its operating funds. But government can never substitute for private sector production, nor should it impede private sector growth. Therefore, it is important to examine the public finance structure and its possible impact on other economic sectors.

In 1980-1983 the non-finance public sector as a whole performed as shown in Table I.4. The public deficit as a proportion of GDP (11.6 percent in 1983) is considerable, and its financing is a determining factor in the growth of the monetary market and availability of internal and external resources. Public enterprises have had a negative impact on the structure of the public deficit and have been a constant burden on the economy.

Appendix Table A.3 (Revenue and Expenditures of the Central Government) clearly illustrates the public sector's budget crisis and its high inflationary impact. Total revenues in 1981 and 1982 financed current expenditures and capital expenditures, but

TABLE I.4

ECONOMIC RESULT OF NON-FINANCIAL PUBLIC SECTOR

	1980			1981			1982			1983		
	Amount*	%	% GDP	Amount*	%	% GDP	Amount*	%	% GDP	Amount*	%	% GDP
Central Government	-141	60	-2.8	-415	59	-4.9	-558	43	-3.9	-2,316	75	-8.7
Public Enterprises	-110	47	-2.2	-291	41	-3.5	-723	56	-5.2	-708	23	-2.7
Other Entities	17	-7	0.3	3	--	--	-7	1	-0.1	-51	2	-0.2
Total Sector	-234	100	-4.7	-709	100	-8.4	-1,288	100	-9.1	-3,075	100	-11.6

*Current Soles (in billions)

Source: BCR

not interest payments. In 1983, revenues did not even finance capital expenditures, and the government's financial situation worsened, creating pressure on the monetary market and for artificial currency emissions.

Tax revenues are clearly insufficient, not only due to their decline during the period (-29 percent), but also due to their distribution. In 1983, over 70 percent of tax revenues were from indirect taxes, with only 17 percent from direct taxes. The Peruvian tax structure has traditionally depended heavily on the external trade sector, which has accounted for 30 to 50 percent of the total. Nevertheless, its 29 percent share in 1981 dropped to 22 percent in 1983, with taxes on exports (-76 percent) suffering the greatest reduction.

With reduced possibilities of collecting taxes on an easily controlled sector such as external trade, the weaknesses of the tax structure become more evident, particularly the concentration of the tax base:[1]

- In 1983, income tax returns were received from 18,800 businesses, 2.6 percent of which paid 80.8 percent of the total collected.
- Only 40 General Sales Tax contributors accounted for 62 percent of the total collected.
- There were 231,454 individual income tax returns filed in 1982, representing three percent of the working population. Of this group, 1,000, or 1.6 percent, accounted for 74 percent of the total collected. This concentration is illustrated geographically by the fact that, in 1983, 75.2 percent of the returns came from the department of Lima-Callao, which accounted for 87 percent of collections by the Tax Office (Direccion General de Contribuciones).

Thus, the structure of government revenues and financing is one of the most critical matters to be resolved and the most difficult to manage. Any consistent development policy to be implemented must confront this situation, and it cannot be solved in the short term. Regional decentralization and the informal sector should be considered along with revision of the tax structure.

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[1] Revista Economica 1/2 de Cambio, October 15 and November 1, 1984.

D. EXTERNAL SECTOR:

1. Balance of payments

In view of the weak internal finances in the Peruvian economy, the behavior of the external trade sector becomes a decisive factor in any recovery in terms of both trade and access to adequate sources of financing. Appendix Tables A.4 and A.5 show the large increase in exports until 1980, mainly due to the high price of minerals. A rapid decline (-23.2 percent) occurred between 1980 and 1983, as a result of foreign price reductions and the virtual disappearance of the fishing industry due to adverse ocean currents.

In reciprocal fashion, imports grew by 95 percent between 1979 and 1981. The decline in exports coupled with the rise in imports resulted in a negative trade balance in 1981 and 1982. The trade balance levelled off in 1983, due to a severe decline in imports (-27 percent). Concurrently with the increase in imports and the drop in exports, there was a net indebtedness which, added to previously contracted loans, brought debt service up from 27 percent of the value of exports in 1979 to 41 percent in 1983. Thus, the current account has had a continuously negative balance since 1980.

These trends have created heavy pressure for external borrowing, which is desirable if it can be directed at activities which are in some way productive, but the general crisis has converted a considerable portion of new credit into simple refinancing, as can be seen below:

EVOLUTION OF FOREIGN CREDIT
(US $ millions)

Year	1981	1982	1983
Amount negotiated (a)	1,620	2,043	2,554
Amount refinanced (b)	83	109	1,024
% b/a	5	5	40

Source: INE, Compendio Estadístico 1983; BCR, 1983 Annual Report.

A combined analysis of the external and internal sectors shows that the economic situation is a particularly difficult one for the government to handle, because the usual tools of action are not available to it. The internal deficit nearly eliminates the possibility of effective investment activity. Externally, the decline in raw materials prices (over which the government has no influence) and high interests costs (over which it also has no influence) create an enormous operational rigidity, and leave a minimal margin of discretion in any type of strategic planning.

2. **Exchange Policy**
As a result of Peru's deficit spending, high internal inflation, and negative trade balance, its monetary unit had to be gradually devalued. The Peruvian Sol, like other regional currencies, remained overvalued for long periods, until 1981 (Appendix Table A.6), thus encouraging imports and indebtedness in foreign currency. Beginning in 1982, an effort was made to correct this distortion by devaluing the currency at a rate above inflation. While this is logical in monetary terms, it made debts in dollars much more burdensome, discouraged imports, and turned the dollar into the most valuable inflation-fighting asset.

As illustrated in the preceding points, the Peruvian economy is highly sensitive to and dependent on the external sector. Consequently, any activity which would permit allocation of long-term funds to reduce the current burden of payments is greatly needed.

3. **Foreign Debt**
By late 1983, Peru had accumulated a foreign debt of approximately US $11.6 billion (Table I.5). Within the overall increase in foreign debt, there has been a 309 percent increase in private debt, representing 20 percent of total foreign debt in 1983 compared to 8 percent in 1979. The most negative factors are increased external debt service payments --which has increased 67 percent faster than total external debt -- and the increase in interest payments as a proportion of exports, 124.4 percent.

TABLE I.5

EXTERNAL DEBT 1979-83
Millions of US $)

	1979	1980	1981	1982	1983	% Change
Total external debt	7,116	8,839	8,844	10,356	11,592	63
- Public, long term	5,932	6,168	5,974	7,125	8,113	37
- Private, non-guarantee, long term	563	1,372	1,507	1,651	2,304	309
- short term	621	1,299	1,363	1,580	1,174	89
External debt service						
- Interests and amortizations	1,205	1,838	2,359	2,023	2,470	105
- Interests and amortizations with respect to exports (%)	29.5	39.5	58.2	49.8	66.2	124.4
- Interests with respect to exports (%)	14.7	16.5	20.5	21.7	31.8	116.3

Source: BCR y INE

E. CONSUMPTION/INVESTMENT EVOLUTION

The consumption/investment ratio, which is a determining factor in how fast the economy can recover, has varied, in keeping with the irregular performance of the economy in recent years (see Appendix Table A.7). In the period 1979-81, consumption increased in real terms, but its weight decreased due to growth in public and private capital. In 1982-83, consumption fell 10 percent and private investment fell more than 48 percent, compared to public investment which maintained a slight growth. These figures indicate a loss in per capita consumption and a weakening of the private sector as a catalyst for growth.

F. FINANCE SECTOR

1. General Observations

Monetary policy has had to confront these basic determining factors:

- The need to control growth of the money supply and, at the same time, finance growing deficit spending.
- Promotion of internal savings at interest rates which give adequate financial returns, creating problems with capacity to borrow or repay loans and the need for a high subsidy component for lines of development credit.
- Liberalization of the financial intermediation process, in order to promote greater competition and more flexible attraction and allocation; and a savings market which is heavily dollarized, creating rigidity in possible credit activity.

Control of liquidity and pressure to increase it are shown in the evolution of the ratio of GDP to liquidity in domestic currency. The final quarter averages for the last four years are shown in the following table:

INCREASE IN LIQUIDITY OF DOMESTIC CURRENCY (%)

		% change
1980	1.83	
1981	1.90	3.8
1982	2.03	6.8
1983	2.33	14.8

Expansion of liquidity, primarily coming from internal credit and monetization, maintained moderate growth. The greatest increase occurred in 1983 and was caused by the need for the Banco Central de Reserva (BCR) to manage the public deficit via credits to the Banco de la Nación. In addition, in 1982 BCR removed the requirement that the banks hold reserves to cover new deposits, and this had an effect on the banking multiplier. In any case, BCR has tried to maintain an adequate balance between the reciprocal effects of currency emissions and the banking multiplier, in order to mitigate the inflationary or recessive effects of decontrol.

Viewing credit as an indicator of private sector performance, the private sector has been severely and negatively affected, as shown in Table I.6.

The official interest rates (Table I.7) indicate two significant circumstances:

- The strong negative trend of fixed rates.
- The great stability of official interest rate ceilings on deposits.

Although in effect the system has been operating with negative rates, the gap between official rates and inflation has been much less than it may appear, because the financial intermediaries have complete freedom to decide what system to use in calculating their interest rates. Thus, in many cases, the effective rates are more than double the official nominal rate. Based on the nominal rate (60 percent), the financial intermediaries set the effective rates by paying or collecting in advance and combining quarterly, monthly or daily compounding (even including the time of receipt of deposit). Complete freedom to apply the different allowable combinations has created a wide range of interest rates and great flexiblity for the institutions to adapt to varying market conditions. Looking to the future, the interesting feature of this mechanism is that, with no change in the terms of reference, the interest market can adjust to progressive decreases in the actual inflation rate.

In any case, high inflation has made the saving and investing public aware of the problem of declining value and thus, in addition to causing pressure for higher rates of interest, has pushed the market toward savings in dollars to achieve effective maintenance of value. The advantage of this type of savings can be seen by comparing the yield on a few selected instruments in the financial market (Table I.8). The growth of savings in dollars has been so great that it considerably exceeds savings in domestic currency, as can be seen in Appendix Table A.8.

This situation, which reflects a tendency for the market to operate in real terms, prompted the legalization of readjustable loans and deposits, via the law of November 25, 1981. Doubts left by the old Civil Code about the legitimacy of readjustibility have been resolved in the new, recently published law.

TABLE I.6

TOTAL CREDIT OF BANKING SYSTEM
(Billions of Soles - 1983)

	1982	1983	% Change
Total	9,133.7	8,762.8	<4.1>
Public Sector	2,141.6	2,488.3	16.2
Private Sector	6,992.1	6,274.5	<10.3>

Source: Superintendencia de Banca y Seguros

TABLE I.7

AUTHORIZED INTEREST RATES

	1979		1980	1981		1982	1983	
	Jan	Feb-Dec		Jan-Apr	May-Dec		Jan-Aug	Aug-Dec
ACTIVE								
- Minimum	31.5	32.5	32.5	49.5	47.5	47.5	47.5	60.0
- Maximum	36.0	37.5	37.5	56.5	55.5	55.5	55.5	60.0
PASSIVE								
- Minimum	29.0	30.5	30.5	50.5	50.5	55.0	55.0	60.0
- Maximum	37.0	38.5	38.5	58.5	55.0	55.0	55.0	60.0

Source: Superintendencia de Banca y Seguros

TABLE I.8

AVERAGE ANNUAL YIELD OF SEVERAL SAVINGS TYPES

	Mortgage Certificates		Savings Deposits		Fixed-Term Deposits		Deposits in US $	
	Efect.	Real	Efect.	Real	Efect.	Real	Efect.	Real
1979	37.2	-17.7	32.7	-20.4	35.5	-18.7	42.2	-14.7
1981	62.1	-6.1	60.9	-6.8	63.0	-5.6	74.2	0.9
1983	63.0	-27.6	69.9	-24.5	74.0	-22.7	150.1	11.1

Source: Superintendencia de Banca y Seguros

2. Financial Intermediation

The financial intermediation market is operated by eight large groups of institutions:

- Banco de la Nación (National Bank)
- Banca Estatal de Fomento (State Development Banks)
- Banco Central Hipotecario (Central Mortgage Bank)
- Banca Comercial y de Ahorro (Commercial and Savings Banks)
- Finance Institutions
- COFIDE
- Mutual Savings and Loans

The behavior of the market in which these institutions operate is shown in Appendix Table A.9. The market showed moderate growth in real terms (nine percent) during 1979-83, with some tendency toward positive returns. Quasi-money grew from 51 percent in 1979 to 72 percent in 1983. Quasi-money in foreign currency, with a higher yield, had greater growth during that period (2,182 percent, compared with 1,235 percent for quasi-money in domestic currency and 659 percent for money).

The following paragraphs profile the institutions operating in this market. Background data on them can be found in Table I.9 and Appendix Tables A.10 to A.14.

Structure of Assets (Table I.9): The sector is extensively nationalized, 76 percent in 1983. The crisis that year reversed the privatization trend that occurred in 1982. Such heavy state participation affects current operations and future projections. Increased participation by the Banco de la Nación has been a key factor in the growth of the public sector. On the other hand, the participation of the housing sector (Banco Central Hipotecario and Mutuales) declined by 28.6 percent. In real terms, total assets in the financial sector steadily declined during the three-year period.

TABLE I.9

ASSETS OF FINANCIAL INTERMEDIARIES
(Millions of Current Soles)

	1981	%	1982	%	1983	%
Banco de la Nación	1,483,654	28	1,281,932	16	4,748,485	24
Banca Estatal de Fomento*	827,567	15	1,607,732	20	3,600,755	18
Banco Central Hipotecario	255,537	5	358,264	4	512,126	3
Savings and Commercial Banks	1,890,354	35	3,468,902	42	7,941,594	40
Financial Companies	247,446	5	453,254	5	773,713	4
COFIDE	472,996	9	796,285	10	1,699,510	9
Mutuales de Vivienda	140,413	3	238,972	3	408,477	2
TOTAL	5,317,967	100	8,205,341	100	19,684,660	100
Public Institutions	3,897,070	73	5,658,409	69	14,864,998	76
Private Institutions	1,420,897	27	2,546,932	31	4,819,662	24
TOTAL SOLES 1979	1,904,897	-	1,786,877	-	1,491,714	-

*Includes BANVIP

Source: BCR y Superintendencia de Banca y Seguros

Readily Available Assets (Appendix Table A.10)
There is an increased tendency toward liquidity (+40 percent) during 1982-83, as a reflection of the difficulty of lending due to high interest rates and the high degree of dollarization in the market. Liquidity is not widespread, since the commercial banks and the Banco de la Nación are responsible for 90 percent of it (57.4 and 32.1 percent respectively), while the shelter credit and development institutions have low liquidity and even show symptoms of cash problems.

Lending (Appendix Table A.11)
Of note is the participation of the Banca de Fomento, a reversal of the preceding situation although, in general (except for the Banco de la Nación), all have reduced participation, especially the housing institutions.

Deposits and Obligations (Appendix Table A.12)
This indicator, which measures capacity for market penetration, shows that the Banca Comercial is the most effective, controlling nearly 54.4 percent of the total. On the other hand, the Banca de Fomento has nominal participation (5.5 percent) compared to its size. This may be a symptom of lack of adaptability to the current economy. Here, too, the housing sector shows decline.

Capital and Reserves (Appendix Table A.13)
Compared with the normal capitalization of the Banca Comercial (29.4 percent), the Banca de Fomento shows 41.2 percent, indicating the heavy state subsidy and the lack of propensity to attract savings. The housing sector is at a very low level, reflecting a certain basic weakness.

Yields (Appendix Table A.14)
In real terms, all yields were negative; and, in current values, the Banca de Fomento and the housing sector showed losses. Given the development function of these institutions, it is important to reverse this dangerous trend. The losses in the Banca de Fomento are more significant if we take into consideration its lack of costly borrowing and its consequential greater facility to produce positive yields.

These points may be summarized as follows:

- The financial intermediation market declined in real terms during 1981-83.
- Of the intermediaries, the most flexible and highest-yielding institution in the group is the Banco de la Nación, followed by the Banca Comercial.
- The development institutions--and particularly the shelter mortgage sector--have performed poorly, with a steady decline.
- The sector is basically public, with predominant state participation. Given the lack of real returns in the sector, it is hard to forecast any appreciable short-term growth in the private sector.

G. CONSTRUCTION SECTOR

This important part of Peruvian economic life has benefitted from special attention by the recent governmental administration, so its pre-1982 growth is considerably higher than that of GDP:

Annual Percentage Growth:	1980	1981	1982	1983
GDP	3.8	3.9	0.4	<10.9>
Construction	18.9	11.0	2.3	<21.0>

The construction sector's speed of reaction to the changes in the economy is demonstrated by its decline in 1983.

The cessation of growth, part of a general decline of the construction sector in all countries, points to the need to define the function of construction and housing within the general economic framework. Public works and housing may be consequences of development, or catalysts for it. Management is difficult because of the amounts of money involved and the generally long-term investment recovery time. This causes a dilemma between whether to wait for general economic growth to stimulate the housing sector, or to give priority to housing. Actually, the two approaches should be balanced.

In any case, during an economic slump, any sector using scarce and costly financial resources should be oriented toward high productivity, not in terms of financial margin but also product quality. In housing, quality is the point of equilibrium between price and value of use, according to different income brackets.

In addition, subsidizing a sector in a period of economic crisis such as the present one is extremely dangerous, because it has a negative multiplier effect on the other sectors. In the analysis of the situation in Peru, three performance criteria for the construction sector will be examined: investment, prices, and productivity.

1. **Population-Production-Construction**
   Table I.10 shows the basic macroeconomic variables, based on GDP, investment and targeted population.

   Investment
   Total investment declined in 1983, as did GDP, to levels lower than 1979, while investment in construction (IC) remained at higher levels. Thus, IC as a percentage of total investment (IT), which dropped from 59.1 percent to 46.7 percent between 1979 and 1981, rose to 61.8 in 1983, becoming a key sustaining factor. The corresponding decrease in the other sectors is a dangerous occurrence, particularly if construction productivity is weak.

Value Added in Construction (VAC)
This accounted for approximately 49 percent of investment, which is a normal share for this category. VAC has ranged between three and four percent of GDP. This indicates that, despite the encouragement it has received, the sector has not been saturated, nor have the reciprocal VAC/GDP relationships become distorted. In theory, this ratio could be increased and still be normal, no lower than four percent, without affecting the intersectoral balance. These figures show that construction has stayed within historical levels of participation in GDP.

2. **Price Trends**
The critical indicator to take into account when investment grows or in searching for new funds in the sector is how prices respond to investment levels. It indicates the sensitivity of the resource structure, i.e., whether higher investment results in higher productivity, or whether, on the contrary, more investment is lost in simple price increases.

Table I.11, which shows only housing construction data taken from a survey by CAPECO, shows that the Index of Construction Costs (ICC) has exceeded the ICP, causing a crisis in 1982, when it was distorted nearly 18 percent above the ICP. The reduction in activity in 1982 and 1983 was accompanied by a strong increase in real costs. Any expansion activity should take this into account, because the internal structure will not allow efficient response to further demand, unless there is a coherent plan.

The ultimate recipient of housing is the family, so family income, which as an index moves with GDP, must be compared to real construction costs. The behavior of the Index of Housing Affordability (IHA) clearly shows that between 1979 and 1981 costs were not a critical factor in affordability, but, on the contrary, in 1982 and 1983 they had considerable effect. Aside from the problem of financing, the very infrastructure of the construction industry is taking housing out of reach of the typical family, and this trend must be reversed by adoption of more appropriate standards.

3. **Construction Productivity**
Aside from the social considerations of housing output, the industry must operate at high productivity to avoid becoming an inflation accelerator and a drain on funds. Table I.12 measures productivity as the ratio of value added (VAC) to active employment in construction (AEC). It can be seen that productivity has steadily declined, particularly in 1982 and 1983, the years of greatest variation in building costs.

Although it is true that lack of volume and continuity affect productivity, all indicators point to inherent problems in the sector. Construction productivity is the lowest of all the sectors analyzed except for agriculture, and is considerably lower than the average. All of this puts sectoral activity into doubt and calls for a comprehensive general policy for construction with productivity as the key element in decisionmaking.

TABLE I.10

POPULATION-PRODUCT-CONSTRUCTION
(Millions of 1973 Constant Soles)

YEARS	GDP	INVESTMENT		CONST. VALUE ADDED (CVA)	POPULATION (Thousands)	GDP PER CAPITA	CONST. INVESTMENT PER CAPITA	CVA PER CAPITA	IC/GDP	CVA/GDP	IC/TI
		TOTAL (TI)	CONST. (CI)								
1979	465,930	50,027	29,581	14,170	6,848.7	27,654	1,756	841	6.3	3.0	59.1
1980	483,848	69,926	34,782	16,833	7,295.3	27,976	2,011	973	7.2	3.5	49.7
1981	502,663	84,798	38,225	18,693	7,754.8	28,311	2,153	1,053	7.6	3.7	46.7
1982	504,451	69,458	38,659	19,123	8,225.7	27,678	2,121	1,049	7.7	3.8	55.7
1983	449,646	49,858	30,813	15,107	8,707.0	24,036	1,647	808	6.9	3.4	61.8

Source: BCR y INE

TABLE I.11

INDEXES OF PRICES AND COSTS

YEARS	CA*	CAI	ICC	CPI	IRCC	IRHI	HAI
1979	16,654	100.0	100.0	100.0	100.0	100.0	100.0
1980	23,162	139.1	161.9	159.2	101.7	101.2	99.5
1981	37,092	222.7	287.2	279.2	102.9	102.4	99.5
1982	30,153	181.1	541.4	459.2	117.9	100.1	84.9
1983	22,908	137.6	1,070.6	969.5	110.4	86.9	78.7

*Millions of Sole

CA = Construction Activity (CAPECO)
CAI = Construction Activity Index
ICC = Index of Construction Costs (CAPECO)
CPI = Consumer Price Index (INE)
IRCC = Index of Real Construction Costs (ICC/CPI)
IRHI = Index of Real Household Income, equivalent as an index to real GDP per capita
HAI = Housing Affordability Variation Index (IRHI/IRCC)

Sources: CAPECO, BCR, INE

TABLE I.12

COEFICIENTS OF PRODUCTIVITY IN CONSTRUCTION AND OTHER SECTORS
(Constant 1973 Soles)

	CONSTRUCTION			INDUSTRY			MINING			AGRICULTURE			TOTAL (Without Agriculture)		
	VAC	EAPC	PRC	VAI	EAPI	PRI	VAM	EAPM	PRM	VAA	EAPA	PRA	VAT	EAPT	PRT
1979	14,170	161.6	87.7												
1980	16,833	124.5	135.2												
1981	18,693	190.7	98.0	121,031	795.8	152.1	38,245	108.5	352.5	58,643	2,077.7	26.3	440,020	3,701	118.7
1982	19,123	221.7	86.2	118,010	765.4	154.2	40,750	108.5	375.6	60,330	2,097.2	28.8	444,121	3,861	115.0
1983	15,107	201.5	74.9	99,128	739.0	134.1	37,612	105.3	357.2	54,524	2,118.2	25.7	395,122	4,018	98.3

VA = Value Added (Millions)
EAP = Economically Active Population (Thousands)
PR = Productivity VA/PEA (Thousands)

Source: CAPECO, BCR, INE

The construction sector has maintained growing or declining employment according to volume undertaken, and its use of labor is proportionately greater than that of the other productive sectors (except agriculture). Some interesting observations can be made on employment:

- Construction alone is unable to provide a solution to existing levels of unemployment. It can be a collaborator, but in no way does it have the ability to be a determining factor.
- Although construction employs unskilled labor, organized labor in the sector has raised wages considerably above average (Appendix Table A.15).
- The construction sector has been severely affected by strikes, particularly in 1982, when construction, with only 3.7 percent of the economically active population, was responsible for 10 percent of the nation's strikes, 30.2 percent of total workers affected, and 33.2 percent of man hours lost (7.5 million man hours). This special circumstance may also serve to explain the cost distortion.

The foregoing observations indicate that the construction industry needs the support of a clear, general policy which would facilitate adequate levels of productivity and sectoral rationalization. Without such a policy, it will be a source of further economic decline.

CHAPTER II

HOUSING DEMAND AND AFFORDABILITY

This chapter presents 1) a rough profile of the current housing situation in Peru, 2) forecasts, for illustrative purposes, of the number of dwelling units required to meet shelter needs in Peru by the year 2005, 3) an analysis of the degree to which various shelter solutions are affordable to different income groups, and 4) estimates of the cost of meeting minimal shelter needs.

The housing needs and affordability analysis presented here was carried out using a "Housing Needs Assessment Model" developed for AID[1]. This model, which operates on a micro-computer, uses data on macroeconomic trends, population trends, household incomes, the housing stock, and housing costs to estimate future housing needs, housing affordability, and the costs of meeting needs for various income groups.

A. EXISTING HOUSING SITUATION

The most recent national-level housing data available for Peru are from the 1981 Census. Based on 1985 population estimates (see Table II.1) and approximations of average occupancy rates (persons per unit), it is estimated that Peru's housing stock currently consists of approximately 3.8 million units. Around one-quarter of these are in the Lima-Callao metropolitan area. The remaining three-quarters are about evenly split between other urban centers and rural areas. The reason that only about 63 percent of the housing stock is in urban areas while two-thirds of the population is urban is that occupancy rates are lower in rural areas. Based on information from the 1981 Census, the average number of persons per unit can be reckoned at about 5.5 in urban centers and 4.6 in rural areas. The high urban figure reflects the basic problems of the housing market in Peru in the last decade: lack of effective demand caused by low incomes and high housing costs, especially financing costs.

In 1981, around 30 percent of the dwelling units in Lima-Callao were rented. Among the 45 largest other cities, the proportion of rental units varied generally from around 25 to 40 percent. In Lima-Callao, detached houses accounted for about one-third of rental units. The other two-thirds were, in order of importance, apartments (25 percent), rooming houses (20 percent), and subdivided mansions (15 percent).

Table II.2 presents data on housing characteristics for 1981. Clearly evident is the disparity between the three geographic areas. For example, while almost three-quarters of Lima's housing stock was built of brick or block, only around one-third of dwellings in other urban centers and barely three percent of rural units were constructed of these materials. Adobe is the overwhelmingly predominant building material for houses outside of Lima, urban or rural. Public service coverage also is

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[1]See Robert R. Nathan Associates and Urban Institute, Preparing a National Housing Needs Assessment, AID Office of Housing and Urban Programs, March 1984; and (same authors), AID Housing Needs Assessment Model: User's Manual, AID Office of Housing and Urban Programs, June 1984.

substantially better in Lima-Callao than in the rest of the country. In 1981, water reached two-thirds of Lima's dwellings but only 55 percent of those in other urban areas. Sewer covered 61 percent in Lima but merely 36 percent in other cities. Electricity reached 86 percent of Lima's dwellings while reaching less than half the houses in other cities. Exact figures on service coverage in rural areas were not available, but fragmentary data suggest that rural household water and sewer connections are virtually nonexistent.

Housing conditions overall deteriorated during the 1970s and have undoubtedly worsened even more in the last few years. The proportion of the national urban population defined as living in "pueblos jovenes" (squatter settlements) increased from 18 percent in 1972 to 25 percent in 1981. According to a study by Paul Strassman, the share of temporary and substandard units in Lima-Callao rose from 35 percent in 1970 to 43 percent in 1980. Because of inadequate supply, the average price of acceptable moderate-value housing in Lima rose 20 percent faster than the average for the total housing stock over the decade[2].

At the same time, there has been, and continues to be, a great deal of housing upgrading, much of it through self-help. In his study of Lima, Strassman found that "the vast majority [82 percent] of owner-occupants add rooms, plaster and paint, install better windows and doors, and improve plumbing facilities." These improvements result in very substantial property value increases over time. The study also showed that upgrading is a continuing activity; it does not stop after the first few years of ownership.

Inadequate infrastructure, particularly water, is probably the main constraint on shelter provision in Peru, aside from the lack of affordable credit. ENACE officials report that several recent housing projects have been delayed because water supply agencies were unable to construct complementary works such as trunk lines, pumps, or storage facilities. In some cases, ENACE has installed these facilities itself at its own expense, greatly increasing the costs and subsidies of the projects. In Peru, the water supply sector has been chronically underfunded. SENAPA's 1983 investment budget was S/7,343.4 million, which was only 0.3 percent of total public sector fixed investment. By contrast, the electricity sector absorbed 35 percent and transportation/communications 14 percent of 1983 public fixed investment. SENAPA's tariffs are far below the levels needed to operate adequately. At the moment, tariff income covers 100 percent of SENAPA's operating costs but only about 25 percent of depreciation. SENAPA's investment budget comes entirely from a tax on consumption (in place since 1980), an Inter-American Development Bank loan, and FONAVI.

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[2]W. Paul Strassman, Employment and Housing in Lima, Peru, AID, March 1983, p.40.

TABLE II.1

POPULATION FORECASTS 1985-2005
(Thousands)

	Total	(AAGR)	All Urban	(AAGR)	Lima-Callao	(AAGR)	Other Urban	(AAGR)	Rural	(AAGR)
1985	19,697		13,224		5,421		7,803		6,473	
%	(100.0)		(67.1)		(27.5)		(39.6)		(32.9)	
		2.54		3.36		3.31		3.39		0.79
1990	22,332		15,599		6,379		9,220		6,733	
%	(100.0)		(69.9)		(28.5)		(41.3)		(30.1)	
		2.38		3.11		2.83		3.30		0.62
1995	25,123		18,177		7,333		10,844		6,946	
%	(100.0)		(72.4)		(29.2)		(43.2)		(27.6)	
		2.16		2.79		2.31		3.11		0.42
2000	27,952		20,857		8,220		12,637		7,095	
%	(100.0)		(74.6)		(29.4)		(45.2)		(25.4)	
		1.92		2.47		2.28		2.58		0.26
2005	30,748		23,559		9,203		14,356		7,189	
%	(100.0)		(76.6)		(29.9)		(46.7)		(23.4)	

AAGR=Average Annual Growth Rate

Source: Centro Peruano de Investigacion Aplicada, except figures for Lima-Callao, which are from INADUR.

TABLE II.2

HOUSING CHARACTERISTICS 1981
(Percentage of Units)

Predominant Materials of Walls	Lima-Callao	Other Urban	Rural
Brick, cement block	73	31	3
Stone, lime	1	3	1
Adobe	18	50	65
Quincha (mud and wattle)	3	6	11
Stone and clay	*	2	10
Wood	3	7	10
Reed mat	1	*	*
Other	*	*	*
Public Service Connection			
Water	68	55	NA
Sewer	61	36	NA
Electricity	86	48	NA

*Less than one percent.
NA=Not Available.
Source: 1981 Census.

B. HOUSING NEEDS 1985-2005

There are reasons for estimating housing needs, even though it is self-evident that Peru does not have the resources to meet them in the forseeable future. The housing needs estimate provides a benchmark against which to measure the actual performance of Peru's housing market and allows one to calculate the costs of meeting housing needs under various assumptions. This information helps provide a realistic framework for decisions on housing policy and programming, especially with respect to the allocation and use of scarce financial resources.

The housing needs analysis takes into account five categories of needs:

- Accommodating future population growth;
- Replacing adequate units that wear out;
- Upgrading salvageable substandard units;
- Replacing non-upgradable substandard units; and
- Reducing overcrowding.

For this exercise, we have assumed a housing program under which all households are provided with an adequate dwelling unit by the year 2005. An important corollary to this scenario is the assumption that investments in infrastructure to support housing (major water, sanitation, electricity, drainage, and street projects) will be made in a timely manner. As suggested above, this assumption is unrealistic.

Appendix II at the end of this report provides information on data and assumptions used for the housing needs projections.

Table II.3 presents the number of units needed per year to fulfill the five housing needs listed above according to the program described in Appendix II. In this program, all new households formed between 1985 and 2000 obtain a shelter solution and all inadequate units are either upgraded or replaced. Note that the figures in Table II.3 are annual numbers of units, not cumulative totals. In other words, the figures represent "snapshots" of annual housing needs at five-year intervals.

The Housing Needs Assessment Model allocates one unit to each new future household. Table II.3 shows that for the nation as a whole the number of new households requiring shelter rises from about 108,000 in 1990 to about 126,000 in 2005. Other urban areas account for over half the new households in 1990 and about 60 percent in 2005. In line with population forecasts, the annual number of new households needing shelter will decline in rural areas and increase in urban areas.

For urban areas, new construction to accommodate household growth represents the majority of future housing needs. In Lima-Callao, new households will be appearing at a rate of about 39,000 per year in 1990 and 45,000 per year by 2005. For other urban areas the addition will be 58,000 new households per year in 1990 and 77,000 in 2005.

In 1990, upgrading of base year substandard dwellings will be the second-largest category of housing needs in both urban zones. Since we have assumed a constant volume of upgrading over the 20-year period, the share of upgrading in total housing needs

drops in later years. The volume of new construction for replacement of permanent units due to obsolescence increases substantially in urban areas from about 19,000 per year in 1990 to 77,000 in 2005.

Rural areas present a somewhat different picture of housing needs than the two urban zones. Upgrading of 1985 substandard units accounts for the vast majority of housing needs throughout the 20-year period. Because an estimated 84 percent of 1985 rural dwellings are upgradable, about 59,000 units must be upgraded per year over the next two decades to improve this stock. New construction to house new rural households drops from about 11,000 per year in 1990 to only around 4,000 in 2005. At the same time, though, replacement of obsolete permanent units grows from less than 1,000 per year in 1990 to 26,000 by 2005 owing to the assumed rapid growth of the permanent rural housing stock.

Meeting the need for new housing in 1990 would require building a total of about 58,000 units per year in the Lima-Callao Metropolitan Area, 79,000 units per year in other urban areas, and 28,000 units per year in rural areas, for a 1990 annual total of about 165,000 dwellings. By 2005, the annual requirement for new housing construction may reach 84,000 units in Lima-Callao, 135,000 in other urban areas, and 46,000 in rural areas.

Recent formal sector housing production has been only a fraction of that needed to meet these requirements. In a paper prepared for IPAE, Jose Graña Miro Quesada estimates that the private and public formal sectors together produced about 23,000 housing units in 1983[3]. Between 1979 and 1983, approximately 108,500 formal sector units were produced, according to Graña. The low in this five-year period was slightly over 15,000 in 1980, and the high was more than 31,000 in 1981. These figures are consistent with independent estimates made for this study (see Chapter III). The 23,000 units produced in 1983 are about one-sixth of the 138,000 required to meet 1990 urban housing needs only. This verifies that the overwhelming majority of Peruvian households obtain housing through informal development. With so little formal housing being built, new middle-class households which shun informal housing are having to "double up" in the existing high-standard housing stock.

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[3]Jose Graña Miro Quesada, Construccion, unpublished paper prepared for Instituto Peruano de Administracion de Empresas, 1984, p.105.

TABLE II.3

HOUSING STOCK AND REPLACEMENT (1990-2005)
(Thousands of Units Per Year)

	1990	1995	2000	2005
Lima-Callao				
New households	39.2	40.4	39.5	44.7
Replacement of permanent units (2% p.a.)	10.8	17.5	24.2	30.9
Replacement of 1985 non-upgradable units	3.0	3.0	3.0	3.0
Construction to relieve 1985 overcrowding	4.9	4.9	4.9	4.9
Subtotal: New construction	57.9	65.8	71.6	83.5
Upgrading of 1985 upgradable units	19.2	19.2	19.2	19.2
Total construction	77.1	85.0	90.8	102.7
Total Lima-Callao housing stock	1,206.4	1,433.0	1,654.6	1,902.9
Other Urban Areas				
New households	57.5	67.7	76.8	77.0
Replacement of permanent units (2% p.a.)	8.5	20.0	32.4	45.7
Replacement of 1985 non-upgradable units	5.6	5.6	5.6	5.6
Construction to relieve 1985 overcrowding	7.1	7.1	7.1	7.1
Subtotal: New construction	78.9	100.4	121.9	135.4
Upgrading of 1985 upgradable units	44.0	44.0	44.0	44.0
Total construction	122.9	144.4	165.9	179.4
Total other urban housing stock	1,743.2	2,117.3	2,536.8	2,957.2
Rural				
New households	11.3	9.2	6.5	4.1
Replacement of permanent units (2% p.a.)	0.8	9.5	17.9	26.0
Replacement of 1985 non-upgradable units	9.2	9.2	9.2	9.2
Construction to relieve 1985 overcrowding	6.7	6.7	6.7	6.7
Subtotal: New conatruction	28.0	34.6	40.3	46.0
Upgrading of 1985 upgradable units	59.1	59.1	59.1	59.1
Total construction	87.1	93.7	99.4	105.1
Total rural housing stock	1,497.0	1,576.8	1,642.7	1,696.6
Total Country				
New construction	164.8	200.8	233.8	264.9
Upgrading 1985 upgradable units	122.3	122.3	122.3	122.3
Total conatruction	287.1	323.1	356.1	387.2
Total housing stock	4,446.6	5,127.1	5,834.1	6,556.7

Source: PADCO Analysis

Note: See Appendix II for information on data and assumptions.

C. HOUSING AFFORDABILITY

Having reviewed estimates of Peru's housing needs over the next 20 years, we turn now to an analysis of the capacity of Peruvian families to afford different types of shelter solutions. The main ingredients needed for a housing affordability analysis are household income data and dwelling unit costs, including financing terms. The exercise essentially involves comparing the capital value of the unit that a household can afford, based on its income, with the design costs of several different shelter solutions. All income and cost figures in this chapter are in constant 1984 end-of-year values.

Appendix II provides a review of data on household income, income distribution, and housing expenditure used for this analysis.

Five "urban" and four "rural" shelter solutions were selected for the affordability analysis (all costs in 1984 values)[4]:

Urban Shelter Solutions

- Upgrading Loan: A loan of S/2,832,000, an amount based on current Banco de Materiales standards for upgrading a 40 m^2 dwelling. In addition to the loan, the affordability analysis must take into account the value of the existing dwelling being upgraded. This has been estimated to be about S/1,662,000 for an informally-built, incomplete house constructed of brick or block.
- "Lote Tizado" (Lot Without Services): A lot without services in a site which has had some grading and preliminary compacting of access and internal roads. The cost includes land, taxes, project design, administration, and legal fees for land titling and registration. Lots are estimated to be about 100 m^2 in the Costa, 132 m^2 in the Sierra, and 180 m^2 in the Selva. The cost is S/3,570,000.
- Serviced Lot: Lots of the sizes listed for "lotes tizados" with individual connections to water supply, sewerage, and electricity. Other services include surface and underground drainage and paved streets. The estimated cost is S/10,894,000.

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[4]Construction costs in Peru vary greatly by region (see Chapter IV). The cost of a structure in the Sierra is generally around 50 percent higher than in the Costa; in the Selva, it can be 150 percent higher. The main reasons for the variation are transportation costs, expenses of hiring skilled workers and managers in the interior, and more adverse terrain and climate in the Sierra and Selva. For this analysis we estimated three separate regional costs for every shelter solution, then calculated a weighted average cost for each solution based on the proportion of urban and rural population in each region.

- Core Unit: A serviced lot like the previous one with a 20 m^2 unit ("nucleo basico") consisting of a cement tile floor, reinforced concrete columns, and an asbestos-cement roof. A toilet and a utility sink are included. The unit also comes with an electric meter and other accessories. The cost is S/19,022,000.

- Minimum Basic House: A serviced lot like the one above with a 40 m^2 house built of brick and/or block but without finishes ("acabados"). All basic accessories are provided, including bathroom fixtures, doors, and windows. The cost is estimated at S/27,150,000.

Rural Shelter Solutions

- Upgrading Loan: The values of the loan and the unit to be upgraded are estimated to be 30 percent lower than in urban areas. The existing unit is assumed to be approximately 40 m^2, made of "traditional" materials (especially adobe), and have no public utility connections. The loan value is S/1,982,000 and the existing unit value is S/1,164,000.

- Communal Infrastructure Package: This consists of a pit latrine shared by two families, a utility sink shared by two families, and a community water supply system consisting of a well, a storage tank, a pump, and a pipe distribution system. The total estimated cost per family is S/2,392,000.

- Minimum Basic House: A 40 m^2 unit with a soil-cement floor, clay tile roof, and walls of "traditional" materials. No water supply or sanitation facilities are included. The cost is estimated to be S/16,418,000. If the communal infrastructure package is added, the cost of the house with communal services is S/18,810,000.

For the calculation of capital values that households can afford, the following terms, which apply to all the above solutions, have been used:

- Interest Rate: 63.5 percent per year, which is the current official BCR maximum official rate for housing finance. The analysis has also made alternative affordability calculations using 120 percent, a "positive" interest rate (current inflation plus 10 percent), and 35 percent, a hypothetical "subsidized" rate.

- Amortization Period: 10 years, the standard current term. We have also examined the effect of extending the period to 20 years.

- Down Payment: 10 percent, also standard. Alternative calculations use 20 percent.

Table II.4 presents affordable capital costs for shelter in 1985, based on four alternative financing packages. The figures are broken down for households in the Lima-Callao Metropolitan Area, other urban areas, and rural areas and, within each of these, by income quintile. The numbers indicate very strongly the low level of effective demand for housing in Peru at the moment.

Given standard current financing terms (first column of Table II.4), an average Lima-Callao household in the middle quintile of the income distribution can afford a unit costing a maximum of about S/10.5 million in 1984 prices. Lima households in the next-to-lowest quintile of the income distribution can afford shelter solutions costing

no more than about S/5.6 million on the average. The bottom 20 percent of Lima households are able to afford an average of only S/3.0 million. Even the richest 20 percent of Lima households are generally unable to afford much in the way of housing: this group's average affordable capital cost is S/35.6 million.

Households in other urban areas, because of lower incomes overall, have a substantially lower capacity to pay than Lima-Callao residents. The middle quintile of other urban households can afford units costing an average of only S/3.8 million, only slightly over what the poorest 20 percent of Lima households can afford.

Rural capacity to pay is extremely limited, especially given existing financing terms. Middle-quintile rural households can afford an average of only S/1.1 million, less than a third of what comparably-situated non-Lima urban households can afford.

The effect of increasing the amortization period from 10 to 20 years and the down payment from 10 to 20 percent (second column of Table II.4) is to raise the affordable capital cost by about 13 percent. This is not a very significant improvement, but it may help a limited number of households "on the margin" to afford a shelter solution they otherwise would not have had access to.

Lowering the interest rate by almost half to 35 percent (third column of Table II.4) has a very substantial effect on affordability. Affordable capital cost goes up by 76 percent over the baseline case. This demonstrates the importance of the interest rate by itself; however, as a practical matter, the subsidy involved in offering shelter at 35 percent interest at the moment is not affordable to the public treasury.

Finally, Table II.4 shows the impact of a "positive" interest rate of 120 percent (fourth column), which is to make a bad situation worse. Affordable capital cost drops by 47 percent relative to the baseline case.

TABLE II.4

AVERAGE AFFORDABLE CAPITAL COSTS 1985
(Thousands of 1984 Soles)

Household Income Quintiles	Alternative Financing Packages			
	Interest 63.5% Term 10 Years Down Pmt. 10%	Interest 63.5% Term 20 Years Down Pmt. 20%	Interest 35% Term 10 Years Down Pmt. 10%	Interest 120% Term 10 Years Down Pmt. 10%
Lima-Callao				
Lowest 1	3,008	3,391	5,295	1,595
2	5,640	6,358	9,928	2,990
3	10,528	11,868	18,532	5,582
4	15,791	17,802	27,798	8,373
Highest 5	37,598	42,385	66,185	19,937
Other Urban				
Lowest 1	684	771	1,205	363
2	2,138	2,411	3,764	1,134
3	3,849	4,339	6,776	2,041
4	5,645	6,364	9,938	2,994
Highest 5	12,574	14,175	22,134	6,667
Rural				
Lowest 1	139	156	244	74
2	485	547	854	257
3	1,109	1,250	1,952	588
4	2,310	2,604	4,067	1,225
5	8,040	9,063	14,152	4,263
Index of capital value	100	113	176	53

Source: PADCO Analysis

Table II.5 dramatizes the affordability problem even more. The table presents the best shelter solution affordable, on the average, in each region and at each income quintile. Under current financing terms, which are "negative" (63.5 percent annual interest) the minimum basic house costing S/27,150,000 is affordable only to the richest 20 percent of households in Lima. It is totally unaffordable in other urban areas. The serviced lot (S/10,984,000) is affordable to the richest 20 percent of households in other urban areas and down to the middle quintile in Lima-Callao. Middle-quintile households in other urban areas cannot even afford an upgrading loan (S/4,494,000 including the cost of the existing unit); the best they can obtain is a lot without services (S/3,570,000). The bottom 40 percent of other urban households and bottom 20 percent of Lima households are shut out of the formal market altogether.

For the rural population, the situation is truly dismal. Only the top 40 percent of households can afford a shelter solution, and none can obtain more than an upgrading loan (S/3,146,000 including the value of the existing unit). The next-to-highest quintile of rural households has access to a communal infrastructure package (S/2,392,000).

Increasing the amortization period to 20 years and the downpayment to 20 percent has virtually no effect on access to the various shelter solutions. However, lowering the interest rate from 63.5 to 35 percent has a substantial impact, as suggested earlier. For Lima-Callao, the minimum basic house becomes affordable to the top 40 percent of households, and the bottom 20 percent gain access to an upgrading loan. For other urban areas, the minimum basic house remains completely unaffordable, but three of the five quintiles gain access to a higher-quality solution. For rural areas, the interest rate reduction helps the top 60 percent of households move up one "notch" in affordability.

As one might expect, use of a "positive" interest rate makes all but the most minimal shelter approaches unaffordable across the board. Table II.5 shows that at 120 percent interest, the richest 20 percent of Lima-Callao households can afford no more than a core unit (S/19,022,000). The third and fourth quintiles can pay for an upgrading loan, and the bottom 40 percent are shut out. Outside of Lima, only the richest 20 percent are in the market at 120 percent interest, and even then the best affordable solution is an upgrading loan.

The principal conclusion of the preceding analysis is that it is impossible to meet minimal shelter needs in Peru without large subsidies given existing financial market conditions. The affordability problem is especially acute for the bottom 40 percent of the urban income and bottom 60 percent of the rural income distribution. Since Peru cannot afford to subsidize housing for more than a tiny handful of families, it is imperative that measures be taken that will lead to a reduction in inflation and market interest rates. In the meantime, available shelter sector resources must be used to provide minimal solutions to as many families as possible at the lowest possible subsidy.

TABLE II.5

BEST SHELTER SOLUTION AFFORDABLE 1985
by Household Income Quintile*

Household Income Quintiles		Alternative Financing Packages			
		Interest 63.5% Term 10 Years Down Pmt. 10%	Interest 63.5% Term 20 Years Down Pmt. 20%	Interest 35% Term 10 Years Down Pmt. 10%	Interest 120% Term 10 Years Down Pmt. 10%
Lima-Callao					
Lowest	1	-	-	Upgrading loan	-
	2	Upgrading loan	Upgrading loan	Serviced lot	-
	3	Serviced lot	Serviced lot	Core unit	Upgrading loan
	4	Serviced lot	Serviced lot	Basic house	Upgrading loan
Highest	5	Basic house	Basic house	Basic house	Core unit
Other Urban					
Lowest	1	-	-	-	-
	2	-	-	'Lote tizado'	-
	3	'Lote tizado'	Upgrading loan	Upgraging loan	-
	4	Upgrading loan	Upgrading loan	Service lot	-
Highest	5	Serviced lot	Serviced lot	Core unit	Upgrading loan
Rural					
Lowest	1	-	-	-	-
	2	-	-	-	-
	3	-	-	Comm infra pkg	-
	4	Comm infra pkg	Comm infra pkg	Upgrading loan	-
	5	Upgrading loan	Upgrading loan	Basic house/no services	Upgrading loan

*See text, Chapter III, Section C.1 for estimated cost of each solution.

Source: PADCO Analysis

D. COSTS OF MEETING HOUSING NEEDS

The final step in this analysis is the estimation of meeting the housing needs outlined in Table II.3. As with the quantification of housing needs in terms of units, presented in Section B of this Chapter, the purpose is to provide an empirical basis for housing policy discussions. While everyone recognizes that Peru's financial sector cannot raise the funds to meet all housing needs over the next 20 years, it is useful to compare available resources with those required. The exercise helps to highlight the need to use what resources are available for shelter as efficiently as possible.

In this analysis, total housing investment is based on providing each household with a minimally adequate shelter solution. In our calculations, all households are assigned one of the following shelter solutions based on their income levels: for urban areas, the minimum basic house (S/27,150,000), the serviced lot (S/10,894,000), and the upgrading loan (S/4,494,000 including the value of the existing dwelling); for rural areas, the upgrading loan (S/3,146,000 including the value of the existing unit) and the communal infrastructure package (S/2,392,000)[5].

The Housing Needs Assessment Model calculates two components of total needed housing investment:

- The aggregate amount households can afford to pay for the types of units assigned to them.
- The gap between total investment by households based on their ability to pay and the total value of units allocated. This gap is considered the "subsidy" component because it is the part of the investment which is unrecoverable.

Total investment requirements for meeting minimal shelter needs appear in Table II.6. Annual national investment is about S/2,390 billion in 1990 and increases rapidly to about S/4,051 billion by 2005 (1984 constant prices). Investment for urban areas is steady throughout the period at around 90 percent of the total. Urban financing requirements for shelter are split more or less evenly between the Lima-Callao Metropolitan Area and other urban areas. Lima-Callao's share of investment greatly exceeds its population share because of the capital's much higher income levels and effective demand. Rural housing investment requirements make up about 10 percent of the total.

The S/2,390 billion cost of meeting housing needs in 1990 is about 3.7 percent of that year's projected GDP. In 1983, total national investment in housing by the "formal" sector was about 0.37 percent of GDP, a ten-fold difference[6]. Approximately S/890 billion--37 percent of the S/2,390 billion needed in 1990--would have to be spent as a subsidy to make up for what low-income households cannot afford to pay.

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[5]See Appendix II for details on how units are allocated to households.

[6]Formal sector housing investment for 1983 consisted of S/46,098 million by the Mutuales, S/47,014 million by BCH, and S/6,202 million by BANVIP.

Actually, the preceding financial resource gap is somewhat overstated. The vast majority of housing in Peru is financed outside of the formal system. Thus the absolute volume of resources being invested in shelter is much larger than the formal sector figures suggest. However, the informal investment is so disaggregated--it is made up of very small sums being spent incrementally over long periods of time by individual households--that it is difficult to see how it could be channeled into a savings system.

Several caveats should be kept in mind. First, the cost estimates in Table II.6 are based on supplying very low-standard shelter solutions. No household obtains a dwelling costing more than S/27,150,000, and there are relatively few such units allocated in our calculations because so few households can afford them. Any scenario using higher-standard housing implies substantially higher costs for meeting housing needs than are presented in Table II.6. Second, the cost estimates are based on the current official interest rate of 63.5 percent per year for housing finance. The figures do not take into account the implicit subsidy in offering housing at what is now a "negative" real interest rate. Third, even if sufficient shelter funds were available, cost recovery were implemented, and the institutional structure for housing finance and delivery were strengthened, a lack of supporting infrastructure would probably thwart any large-scale housing program. It is imperative to improve the capacity of the basic infrastructure sectors to meet future needs for potable water, sanitation, electricity, solid waste disposal, and community services. These improvements must go hand-in-hand with changes in the housing sector.

TABLE II.6

INVESTMENT REQUIRED TO MEET MINIMUM SHELTER NEEDS*
(Millons of 1984 Soles)

	1990	1995	2000	2005
National	2,389,914	2,843,461	3,381,309	4,050,833
% of forecast GDP	3.7	3.7	3.4	3.2
Lima-Callao	1,050,734	1,227,827	1,463,563	1,845,405
% of forecast GDP	1.6	1.6	1.5	1.5
Other Urban	1,066,750	1,318,485	1,602,689	1,810,778
% of forecast GDP	1.7	1.7	1.6	1.4
Rural	272,429	297,149	315,058	394,650
% of forecast GDP	0.4	0.4	0.3	0.3
Subsidy required nationally**	889,858	1,030,323	1,115,706	1,159,386
% of forecast GDP	1.4	1.3	1.1	0.9
Subsidy required for urban shelter	757,255	891,207	982,254	1,029,614
% of forecast GDP	1.2	1.1	1.0	0.8
Subsidy required for rural shelter	132,603	139,116	133,452	129,772
% of forecast GDP	0.2	0.2	0.1	0.1

* Solutions allocated in this analysis (costs in 1984 soles):

Urban: 1) Basic house S/. 27,150,000 (Lima-Callao only)
2) Serviced lot S/. 10,894,000
3) Upgrading loan plus value of upgradable "informal unit S/. 4,494,000

Rural: 1) Upgrading loan plus value of upgradable "informal" unit S/. 3,146,000
2) Communal infrastructure package S/. 2,392,000

**Subsidy required to meet minimal shelter needs of households that cannot afford a minimal solution on the following terms: 63.5% interest, 10% down payment, 10 year term.

E. SUMMARY

1. It is estimated that Peru's housing stock currently consists of approximately 3.8 million units. Around one-quarter of these are in the Lima-Callao metropolitan area. The remaining three-quarters are about evenly split between other urban centers and rural areas. The average number of persons per unit is roughly 5.5 in urban centers and 4.6 in rural areas.

2. On average, housing quality, in terms of both building materials and infrastructure, is much better in Lima-Callao than in other urban areas. In turn, urban housing quality is substantially better than rural, especially with respect to infrastructure. Housing conditions overall deteriorated during the 1970s and have undoubtedly worsened even more in the last few years.

3. Inadequate infrastructure capacity, especially water, is probably the main constraint on shelter provision in Peru, aside from the lack of affordable credit. SENAPA's tariffs are far below levels needed for adequate investment and operation.

4. In 1990, meeting the national need for new housing (providing all households with a minimum shelter solution) would require building a total of about 58,000 units per year in the Lima-Callao metropolitan area, 79,000 units per year in other urban areas, and 28,000 units per year in rural areas, for a 1990 annual total of about 165,000 dwellings. In addition, meeting the yearly need for upgrading of existing substandard housing would amount to approximately 63,000 urban units upgraded and 59,000 rural units upgraded in 1990.

5. Recent formal sector housing production has been only a fraction of that needed to meet the preceding requirements. It is estimated that the private and public formal sectors together produced an average of around 22,000 units per year between 1979 and 1983. This is about one sixth of the number required to meet 1990 urban housing needs only. This verifies that the overwhelming majority of Peruvian households obtain housing through informal development.

6. Given current financing terms, the minimum basic house costing S/27.15 million is affordable only to the richest 20 percent of households in Lima. The serviced lot costing S/10.9 million is affordable to the richest 20 percent of households in other urban areas and down to the middle quintile in Lima-Callao. The poorest 40 percent of other urban households and and poorest 20 percent of Lima households are shut out of the formal sector market altogether, as they are unable to afford even a lot without services under current financing conditions. For the rural population, the situation is truly dismal. Only the richest 40 percent of rural households can afford a formal sector shelter solution, and none can obtain more than an upgrading.

7. Lowering the interest rate from 63.5 percent (late 1984 official rate) to 35 percent (hypothetical) substantially improves affordability for all segments of the population.

8. Given existing financial market conditions, it is impossible to meet minimal shelter needs in Peru without large subsidies. Since Peru cannot afford to subsidize housing for more than a tiny handful of families, it is imperative that measures be taken that will lead to a reduction in inflation and market interest rates.

9. Annual national investment required for meeting minimal shelter needs amounts to about S/2,390 billion in 1990 and increases rapidly to about S/4,051 billion by 2005 (1984 constant prices). The S/2,390 figure for 1990 is about 3.7 percent of that year's projected GDP. By contrast, total national investment in housing by the formal sector in 1983 was about S/100 billion, or 0.37 percent of 1983 GDP. This huge resource gap must be interpreted in light of the fact that the vast majority of housing in Peru is financed outside of the formal system. Thus the absolute volume of resources being invested in shelter is much larger than the formal sector figures suggest. Channeling the very disaggregated informal investments in shelter--in terms of the small amounts and the long times over which they are spent--into a formal savings system poses difficult challenges.

10. Approximately 37 percent of the S/2,390 billion needed to meet minimal shelter needs nationally in 1990 (S/890 billion) would have to be spent as a subsidy to make up for what low-income households cannot afford to pay. Even if sufficient shelter funds were available, full cost recovery were implemented, and the institutional structure for housing finance and delivery were strengthened, a lack of supporting infrastructure would probably thwart any massive shelter program. Improvements in the capacity of the basic infrastructure sectors--potable water, sanitation, electricity, solid waste disposal, and community services--must go hand-in-hand with changes in the housing sector.

CHAPTER III

SHELTER FINANCE AND INSTITUTIONS

A. SECTORAL COORDINATION

1. Problems

Numerous problems contribute to the lack of coordination among shelter institutions, between shelter policies and other government policies, and between different sectoral programs. The principal roots of the shelter sector's coordination problems are summarized below:

Separation of Programming and Finance: Public sector housing policy, set essentially through the Ministry of Housing, is divorced from financial and economic policymaking, set globally by the Ministry of Economy and Finance and the BCR and for the housing sector by BANVIP. This separation is manifested in the problems of FONAVI. On the programming side, the policy has been to use FONAVI funds mainly for highly-subsidized, high-standard units. The financial implications and opportunity costs have not been given importance. On the financial side, BANVIP and the other finance institutions are aware of the decapitalization of FONAVI that is occurring due to non-market pricing, negative interest rates, lack of cost recovery, failure to raise the contributions base, and failure to use FONAVI to leverage outside funds, but are unable to take direct action.

Separation of Housing and Infrastructure Planning: Public sector shelter programming occurs with little regard for the capacity of public utilities to provide supporting infrastructure. In some cases, unrealistic assumptions have been made about the financial resources available locally for necessary off-site infrastructure. In other cases, public housing projects have gone ahead without obtaining the usual assurance of infrastructure availability from the utility (ENACE is exempt from regulations requiring this), resulting in sharp cost escalations borne by FONAVI.

Breakdown of National Planning: Lack of coordination within the housing sector stems in part from the breakdown of the national government's planning process. Institutionally, the Peruvian public sector continues to be highly compartmentalized along sectoral lines. Control has recently become even more centralized due to the extraordinary efforts being made by the Ministry of Economy and Finance to impose fiscal discipline. Meanwhile, far less effort has been dedicated to ensuring the effectiveness of the spending that does occur. For planning, there is a tremendous institutional vacuum created by the weakness of INP, which should, in principle, be in charge of coordinating the government's investment program. While INP maintains liaison offices in central government agencies, it remains off the critical path in economic and sectoral decisionmaking.

Chaotic Legal Framework: Differing political philosophies among the various governments in power over the past two decades have left Peru with a legal framework that does not send clear, consistent signals. Laws governing many areas of life reflect contradictions among statist, self-sufficient (import--substituting), and open market (export-oriented) economic philosophies. Legal problems also spring from the accumulation over many years of ad hoc decrees and resolutions designed to address particular issues or temporary problems. The results of this are 1) great insecurity, especially in the private sector and in the financial community, over the "rules of the game" in economic affairs and 2) a strong movement toward "informality"--operation outside the legal framework--in economic activities.

One example of the impact of legal breakdown on the housing sector is the uncertainty over the legal status of the Mutuales (Savings and Loans). In the late 1970s, BANVIP issued resolutions to help the Mutuales deal with unfavorable market conditions. Among these was temporary permission to lend for non-housing purposes. In 1981, a law was passed creating a commission to draft a new general law for the S&L system. This law also provided that the membership of the Boards of Directors of the Mutuales be frozen until passage of the new law. Four years later, the new general law remains unpassed, and the Boards of Directors still frozen. Internal management of the S&Ls has suffered, and operations continue in legal "limbo".

Another example is the confusion surrounding the legal designation of "Pueblos Jovenes" and the community organizations representing them. Law 13517 of 1960 allowed an existing informal settlement to be officially declared a "Pueblo Joven" through a legal resolution in order to make it eligible for property titling and upgrading. However, the criteria for designating a settlement as a "Pueblo Joven" were ambiguous. As a result, numerous urban settlements, including some very large ones, have for no logical reason remained without legal access to the upgrading and titling process. In addition, Law 13517 provided that no settlements formed after 1960 be officially designated. A later Supreme Decree, No. 105-68-FO (1968), contradicted this without providing for the repeal of the 1960 limitation. This has resulted in further confusion and arbitrary decisions. Finally, the legal status of community organizations required by law to represent residents in "Pueblos Jovenes" is uncertain. Law 13517 provided for the creation of "Asociaciones de Pobladores" (Residents' Associations) made up only of people who had received provisional titles. Supreme Decree 105-68-FO eliminated provisional titles, apparently annulling the membership requirement of Law 13517. At the same time, the government established in 1968 a new form of local association, the "Organizacion Vecinal" (Neighborhood Organization), which were political groups without legal status. The consequence of this was, on one hand, government promotion of groups that could not obtain legal status ("personeria juridica") and, on the other hand, legally constituted groups with no political recognition or effectiveness.

Loss of Functions by Ministry of Housing: With the creation in recent years of ENACE, SENAPA, INADUR, AND ININVI as independent institutions, the Ministry of Housing has lost most of its direct implementation, technical assistance, and normative functions. In some cases, the Ministry continues to do work that duplicates that of one of the new organizations. For example, both the Ministry's Direccion General de Edificaciones and ININVI are responsible for promulgating building codes and standards, but it is unclear which has ultimate authority.

The housing sector is heavily influenced by macroeconomic policy issues, particularly savings and investment levels, interest rates, foreign exchange availability, pricing, and state regulation of economic activity. Given that the Ministry of Housing is only one among various institutions that participate in policymaking in these areas, the Ministry's ability to truly lead the sector is questionable. The development of an effective housing policy and plan will require an entity that can coordinate and dictate policy to the entire family of institutions directly and indirectly involved in the sector.

Fragmented Management of FONAVI: FONAVI's founding law provides that it be managed by BANVIP. In practice, however, FONAVI programs are defined by the Ministry of Housing and implemented by ENACE. BANVIP serves merely as a caretaker, assuring an adequate cash flow to projects. BANVIP is not even responsible for recuperation of FONAVI loans. The legal instruments (e.g. mortgages) for credits on FONAVI housing are handed over to the other financial intermediaries, mainly the Mutuales and BCH. These receive no remuneration for managing the FONAVI portfolio and, in some cases, must assume the credit risk. The result of this is mismanagement of FONAVI, with no connection between responsibility, accountability, and authority.

Constraints on Municipalities: Under the new municipal law, municipal governments are given responsibility for local infrastructure and legalization of informal settlements. However, the municipalities lack the financial resources and technical/administrative capacity for carrying out these functions. One result of this is the avoidance of action, as municipalities and central government agencies (which are also financially strapped) look to each other to take the lead in these areas.

2. Housing Policy Mechanism

To begin rectifying some of these problems, consideration should be given to the possibility of establishing an ongoing mechanism for joint public-private sector shelter policy analysis and formulation. The main purposes of this mechansim would be: 1) To promote coordination of government and private sector policies and programs in support of shelter objectives, 2) To relate shelter policies in a consistent way to the nation's overall economic development strategy, and 3) To help bring legal and regulatory coherence to the shelter sector. Private sector groups that may participate in this mechanism could include not only the construction industry and land developers, but also housing cooperatives and communal associations.

One possibility is to create a high-level Housing Policy Group which would formulate policy for the shelter sector. This group would be independent of other institutions and would consist of high-ranking representatives of the Housing Ministry, INP, the Finance Ministry, BCR, BANVIP, BCH, the Mutuales, the Banco de Materiales, SENAPA, CAPECO, and possibly others. The decisions of the Housing Policy Group should be binding on the respective organizations.

The Housing Policy Group could be supported by a permanent Technical Secretariat consisting of a very small and high-quality staff of economists, financial analysts, legal experts, and other specialists. It would be desirable to consider making the Technical Secretariat independent of other ministries or institutions and having it report directly to the Housing Policy Group.

As a focus for its work, the Housing Policy Group could be made responsible for producing a short/medium term (say, 3-4 years) National Housing Plan. The Plan would emphasize the creation of an appropriate framework for public and private shelter activities; it would de-emphasize physical output targets. The main components of the Plan, which would be updated regularly, would include:

- A clear statement of the roles of the various housing sector institutions, in terms of the markets they should serve and the types of operations they should be involved in.
- A realistic estimate of the resources which will be available to each institution.
- An agenda of fiscal and monetary policies needed to enable the institutions to carry out their functions.
- An investment program for shelter solution production and financing.
- A plan and investment program for complementary infrastructure (water, sanitation, drainage, electricity, roads, and community facilities).
- Complementary measures in the areas of 1) improving the productivity of the construction industry (in terms of value added per worker), 2) improving the efficiency of building materials productions, 3) making infrastructure standards more affordable, and 4) preventing delays in publicly-supported construction projects.

If it is not feasible to set up a Housing Policy Group as suggested above, a more modest scenario could be considered, as follows: Technical policy analysis units could be established in one of the government agencies (e.g., the Housing Ministry or BCR) and in CAPECO or some other private organization. Seminars would be held to bring together public and private representatives to discuss issues and prepare joint resolutions or recommendations. It may be possible to structure a series of public-private "Ad Hoc Commissions" on various aspects of the shelter sector which would be in charge of recommending policy changes and program initiatives.

B. INSTITUTIONS

Peru has four institutions which are basically oriented toward the housing sector on a long-term basis:

- Mutual System (Savings and Loan Associations)
- Banco de la Vivienda del Peru (BANVIP)
- Banco Central Hipotecario (BCH)
- Banco de Materiales.

The only private institution among these is the Mutual System.

The economy has severely affected these institutions, weakening their ability to attract and allocate resources, as shown in the figures in Table III.1. They have suffered a serious decline, especially BCH and the Mutuales, although it was mitigated by the recovery of 1983. The principal beneficiaries of the liberalization of the monetary market have been the commercial banks, which have the greatest power to act in the market.

Table III.1 shows the savings market in Soles, the only one to which the shelter intermediaries have access. However, the largest market is in dollar savings, and it is against the total sol plus dollar market that the institutions should be measured. Table III.2 shows that the combined participation of BCH and the Mutuales dropped by about half during 1979-1983.

TABLE III.1

PARTIAL FINANCIAL MARKET (SOLES) BY INSTITUTION TYPE
(In Percentages)

YEARS	BCH	PRIVATE BANKS	MUTUALS	COMMERICAL BANKS AND OTHERS	TOTAL	BILLIONS OF SOLES
1979	33.6	2.4	15.1	48.9	100	172.8
1980	28.4	2.3	15.0	54.3	100	314.9
1981	26.9	2.9	12.4	57.8	100	726.2
1982	22.0	1.8	12.8	63.4	100	1,250.1
1983	18.6	2.9	14.9	63.6	100	2,133.7

Source: BANVIP

TABLE III.2

TOTAL SAVINGS MARKET
(Soles and Foreign Currency)
(In Percentages)

YEARS	AMOUNT*	BCH	MUTUALS
1979	324.7	17.9	8.0
1980	701.9	12.7	6.7
1981	1,392.6	14.0	6.5
1982	2,734.9	10.1	5.9
1983	5,448.4	7.3	5.8

*Billions of Soles

Source: Superintendencia de Banca y Seguros

These figures highlight the structural weakness of the sector and the lack of a definite policy to maintain the competitiveness of the intermediaries as the market evolves. A separate analysis of each of the housing institutions is presented below.

C. MUTUAL SAVINGS AND LOAN SYSTEM (MUTUALES)

1. Background:

The Peruvian savings and loan system was the first one in Latin America, and today it has 16 associations with 107 offices, making it one of the most extensive financial networks in the country (Appendix Table A.16). The system was designed to be oriented exclusively to the shelter sector and has a large penetration in the market, with nearly 1.4 million accounts. Savings grew in current terms over the last decade, although in 1983 growth was lower than inflation, as can be seen in Table III.3.

The mutual system has carried out shelter financing activity through FONAVI as well as other sources. The big change in recent years has been that housing is no longer the principal activity of the mutual system. When high inflation began in the second half of the seventies, the system was in the following situation:

- Long-term fixed rate portfolio.
- Regular clients unable to afford new housing due to high interest rates and low incomes.
- Housing as the single objective of the system.

The simultaneous influence of these three factors threatened to eliminate the system. Therefore, on the assumption that this was a temporary crisis, the government decided, via resolutions of BANVIP:

- To compensate the Mutuales for the gap between interest on the old portfolio and the new, higher market rates, through direct contributions of funds.
- To liberalize the interest rate structure that the system can apply.
- To open the operations of the Mutuales to almost any type of credit, in order to safeguard financial stability.

Although the measures taken by BANVIP were positive and necessary, in time the temporary situation became a permanent one, and the possibility for the system to act directly in the shelter financing market based on its own resources has become considerably more remote. This is shown clearly by the portfolio structure data in Table III.4.

TABLE III.3

MUTUALS: ATTRACTION OF RESOURCES

YEARS	SAVERS (Thousands)	ACCUMULATED SAVINGS (Millions)	RATE OF GROWTH OF SAVINGS
1975	803	9,298	16.2
1976	844	9,861	6.1
1977	903	11,217	13.8
1978	971	14,211	26.7
1979	1,083	26,411	85.8
1980	1,198	51,849	96.3
1981	1,297	101,254	95.3
1982	1,378	174,307	72.1
1983	1,393	306,511	76.9

Source: BANVIP

TABLE III.4

MUTUAL SYSTEM: PORTFOLIO
(Millions of Soles)

YEARS	TOTAL PORTFOLIO	%	HOUSING	%	OTHERS	%	LOANS BANVIP	% OVER THE TOTAL
1977	9,913.9	100	9,895.9	99.8	18.0	0.2	1,255.7	12.7
1978	12,107.3	100	11,390.1	94.1	717.2	5.9	1,590.3	14.0
1979	17,644.3	100	11,693.5	66.3	5,950.8	33.7	1,645.7	14.1
1980	33,662.5	100	12,588.4	37.4	21,074.1	62.6	2,451.3	19.5
1981	63,862.0	100	18,590.9	29.0	45,341.1	71.0	7,479.1	40.4
1982	154,108.0	100	38,053.2	24.7	116,054.8	75.3	22,610.2	58.9
1983	234,862.0	100	81,713.6	34.8	153,148.5	65.2	51,342.2	70.2

Source: BANVIP

TABLE III.5

NUMBER OF UNITS FINANCED
TRADITIONAL MARKET

YEARS	TOTAL	FONAVI	SUBTOTAL (Without Fonavi)	MUTUALS	AVERAGE LOAN*
1975	10,642	---	10,642	4,022	1,919
1976	7,496	---	7,496	4,276	1,627
1977	5,489	---	5,489	2,736	1,374
1978	6,640	---	6,640	2,690	914
1979	4,136	---	4,136	1,775	697
1980	12,108	7,366	4,742	1,992	973
1981	16,163	9,429	6,734	2,235	1,001
1982	21,226	9,288	11,938	4,957	846
1983	12,936	3,206	9,730	5,039	---

*Thousands of constant 1979 soles.

Source: BANVIP

Traditional housing loans went from 100 percent of total activity in 1977 to one-third in 1983, and this proportion was financed almost completely with BANVIP funds. Thus, 70.2 percent of the housing portfolio is financed with BANVIP loans, but only 10.4 percent of the total portfolio is financed with the Mutuales' own resources. Although this prevents the mutual system from suffering the impact of the portfolio crisis by transferring it to BANVIP or FONAVI, it creates a serious internal distortion.

Nevertheless, housing credit activity has continued (Table III.5). Points to be highlighted are the steady growth in credit in the mutual system since 1980 and the decline in value of the average loan from 1981 to 1982, influenced by loans for infrastructure and upgrading. It is within this framework, characterized by a gradual loss of identity and efforts to keep the financial situation on a sound footing, that the financial position of the system must be analyzed. The analysis will consider the system as a whole, and then separate out Lima from Other Areas, since an overall study alone would not be sufficiently representative due to the number of institutions (16) and the diversity of the two situations.

Analyses will be in constant Soles where possible (1979=100) in order to eliminate distortions due to inflation.

2. Financial Situation of the System

Appendix Table A.18, which gives the average balances in real terms for the last three years, indicates poor performance with the following figures on assets:

- Growth: Negative overall for the period (-7.5 percent), but particularly in 1983, with a decline of more than 19 percent.
- Loans: The portfolio (loans) has a meager share of overall assets (61 percent), which is inadequate in an industry whose purpose is investment. This reflects the current problems in the market.
- Critical Assets: The only two assets with real sustained growth are a) unsold projects,i.e., projects which are difficult to market, and b) interest receivable, a reflection of growing delinquency.

In conclusion, the system is weakening in the assets category, not only due to lack of growth, but also because of the increase of negative factors in handling allocations.

Liabilities show the following characteristics:

- Savings Attraction: Both savings and term deposits have declined in absolute terms, although they have maintained their percentage of participation. This decline was compensated by BANVIP loans, particularly from FONAVI, whose share more than doubled during the period.
- Capitalization: Reserves and surpluses declined, a reflection of the critical situation in 1983 when they declined by almost 32 percent. This loss in surplus-generating capacity is shown in the Statement of Financial Results, which combines the decrease in the financial margin (from six

percent of output in 1981 to three percent in 1983) and the increase in general expenditures, which absorb 19 percent of output compared with 11 percent in 1981. The combination of higher costs and lower financial margin creates a dangerous scenario for the mutual system.

The financial indicators (Appendix Table A.19) confirm this diagnosis. Productive assets (indicator 1) declined compared to total assets, limiting income-generating resources and making the system more costly. Delinquency (indicator 2) practically doubled in this period. The largest arrears come from highly speculative short-term loans, and this calls for a major internal assessment. The ratio of income-generating funds to deposits (indicator 3) also dropped, which made the system more sensitive to changes in market interest, and raising the risk of heavy losses. The ratio of own resources to deposits (indicator 4) indicates decapitalization. Indicators 5 and 6, relating productive assets to financial income and costs, confirms the above tendencies.

The financial surplus over average productive assets (APA), which results from combining indicators 5 and 6, is:

	1981	1982	1983
Interest Earned/APA	38.1%	46.4%	39%
Interest Paid/APA	35.5%	41.2%	37.3%
Surplus	2.6%	5.2%	1.7%

The surplus dropped by two thirds in 1983.

Based on the assumption that, in operational equilibrium, the financial result should cover operating expenses (indicator 7), the following indicators are significant:

	1981	1982	1984
Financial surplus/APA	2.6%	5.2%	1.7%
General expenses/APA	(4.5)%	(6.4)%	(8.7)%
Result	(1.9)%	(1.2)%	(7.0)%

These figures indicate that the system seems to have lost the ability to function in operational and financial equilibrium.

3. Comparative Financial Situation: Lima/Other Areas

The evolution and behavior of the system have been completely different in Lima as opposed to other areas. In contrast with "normal" times, when Lima was the principal market, the more conservative behavior of the Mutuales in the interior has permitted them a much more positive level of performance. Tables III.6 and III.7 show their respective positions in 1982 and 1983, with these highlights:

- Growth in the interior's share of total assets from 43 to 45 percent between 1982 to 1983.

- Productive Assets: The Mutuales in the other areas remained more liquid, with approximately 62 percent of total assets contributing toward financial returns. The Mutuales of the interior have likewise maintained their credit activity primarily in housing, and only supplementally in commercial credit, which absorbs only 39 percent of loans.
- Non-productive Assets: These are markedly lower in the interior, with a noticeable change in their favor in 1983, particularly in interest receivable (arrears), and unsold projects.
- The system in the interior is much more sound, stable and capable of generating income.

In liabilities, the Mutuales of the interior capture resources in proportion to their weight in assets, but they show a more intensive use of BANVIP and FONAVI loans. The most prominent liability is capitalization, which accounts for 72 percent of the total in the system. This high capitalization is the result of a combination of healthy financial surpluses and low operating costs, as can be seen in the statements of financial results in Tables III.6 and III.7. Unlike Lima, the other areas operated in financial equilibrium in 1982 and 1983.

From inside the system, it seems clear that the Mutuales in the interior are not capable of confronting with a highly competitive market such as Lima's. Nevertheless, they have turned into small "family banks" which are more manageable in the existing context, and where public relations are person-to-person, not via large-scale communications media.

TABLE III.6

MUTUAL SYSTEM: COMPARATIVE BALANCES
LIMA/PROVINCES 1982
(Millions of Constant 1979 Soles)

	TOTAL SYSTEM	%	TOTAL LIMA	% (1)	TOTAL PROVINCES	% (2)	% 2/1
AVERAGE ASSETS							
Available	11,715	100	5,172	44	6,543	56	126
Investment	712	100	364	51	348	49	96
Housing Loans	7,531	100	3,980	53	3,551	47	89
Special Loans	20,757	100	13,355	64	7,402	36	55
Unsold Projects	547	100	322	59	225	41	70
Fixed Assets	2,412	100	1,548	64	864	36	56
Interest to Collect	1,056	100	688	65	368	35	54
Other Assets	1436	100	781	54	655	46	84
TOTAL ASSETS	46,166	100	26,210	57	19,956	43	76
AVERAGE LIABILITIES							
Savings	23,516	100	13,175	56	10,341	44	78
Fixed Term Deposits	6,003	100	2,158	53	2,845	47	90
Banvip Credit	2,176	100	1,080	49	1,096	51	102
Fonavi Credit	1,086	100	482	44	604	56	125
Other Liabilities	10,214	100	6,549	64	3,665	46	72
Reserves	894	100	587	66	307	34	52
SUBTOTAL	43,889	100	25,031	57	18,858	43	75
Reserves and Surplus	2,277	100	1,179	52	1,098	48	93
TOTAL LIABILITIES	46,166	100	26,210	57	19,956	43	76
FINANCIAL RESULTS							
Total Income	16,862	100	8,616	51	8,246	49	96
Interest Earned	15,211	100	7,647	50	7,564	50	99
Interest Paid	<13,520>	100	<6,908>	51	<6,612>	49	96
Financial Result	1,691	100	739	44	952	56	129
Operating Costs	<2,105>	100	<1,231>	56	<874>	44	71
Commissions & Others	1,651	100	969	59	682	41	70
Other Expenditures	<387>	100	<286>	74	<101>	26	35
RESULTS	849	100	191	23	658	77	344

Source: BANVIP and Superintendencia de Banca y Seguros

TABLE III.7

MUTUAL SYSTEM: COMPARATIVE BALANCES
LIMA/PROVINCES 1983
(Millions of Constant 1979 Soles)

	TOTAL SYSTEM	%	TOTAL LIMA	% (1)	TOTAL PROVINCES	% (2)	% 2/1
AVERAGE ASSETS							
Available	6,651	100	2,742	41	3,904	59	142
Investment	1,804	100	622	35	1,182	65	190
Housing Loans	7,008	100	3,304	47	3,704	53	112
Special Loans	15,768	100	9,654	61	6,114	39	63
Unsold Projects	846	100	663	78	183	22	28
Fixed Assets	2,569	100	1,874	73	695	27	37
Interest to Collect	1,422	100	942	66	480	34	51
Other Assets	1,272	100	845	66	427	34	50
TOTAL ASSETS	37,340	100	20,651	55	16,689	45	81
AVERAGE LIABILITIES							
Savings	19,299	100	10,844	56	8,455	44	78
Fixed Term Deposits	5,324	100	3,019	57	2,305	43	76
Banvip Credit	1,862	100	705	38	1,157	62	164
Fonavi Credit	2,042	100	1,015	50	1,027	50	101
Other Liabilities	6,095	100	3,785	62	2,310	38	61
Reserves	1,167	100	852	73	315	27	37
SUBTOTAL	35,789	100	20,220	57	15,569	43	77
Reserves and Surplus	1,551	100	431	28	1,120	72	260
TOTAL LIABILITIES	37,340	100	20,651	55	16,689	45	81
FINANCIAL RESULTS							
Total Income	12,949	100	6,116	47	6,833	53	112
Interest Earned	11,122	100	5,009	45	6,113	55	122
Interest Paid	<10,650>	100	<5,507>	52	<5,143>	48	93
Financial Result	472	100	<498>	<105.5>	970	205.5	---
Operating Costs	<2,488>	100	<1,523>	61	<965>	39	63
Commissions & Others	1,827	100	<1,107>	61	720	39	65
Other Expenditures	<438>	100	<326>	74	<112>	26	34
RESULTS	<627>	100	<1,240>	---	613	---	---

Source: BANVIP and Superintendencia de Banca y Seguros

4. Financial Situation of the Mutuales in Lima

In addition to the data in the comparative analysis, the following figures from the balances of the Mutuales in Lima (Appendix Table A.20) are of note:

- Productive Assets: Declined in both investments and liquid assets in 1982-1983, as a result of the decline in total assets and resources and consequent reduction of sources of income.
- Non-productive Assets: Showed considerable growth, both in immobilized funds (fixed assets) and net costs, (unsold projects and interest receivable), reflecting financial and operational weakness. This behavior is seen in indicators 1 and 2 in Appendix Table A.21, showing that productive assets dropped to 0.79 centavos per Sol of total assets, putting a squeeze on earnings, and arrears almost doubled, with unpaid interest reaching 7.3 percent of the total portfolio.
- Attraction of Resources: Although there was a decline during this period, it was smaller than the decline in productive assets (indicator 3, Appendix Table A.21), which implies a relative increase in the cost of productive assets and their greater inelasticity with respect to any rise in market costs.
- Capitalization: Reserves and surpluses saw the greatest decline (63 percent), and were practically depleted. This decline can be seen in the ratio of resources to deposits (indicator 4). Whereas in 1982 there were 6.6 centavos per Sol captured, the ratio dropped to only 2.8 centavos in 1983, indicating a serious solvency problem.
- Statement of Financial Results (Appendix Table A.20): The financial margin dropped from +8 percent of output to -8 percent and operating expenditures went from 14 percent of output to 25 percent.

The foregoing discussion indicates how operation in the Lima market has become less profitable and more costly.

If we compare financial results with average productive assets (numbers 5, 6 and 7 in Appendix Table A.21), the following situation becomes alarmingly clear:

	1982	1983
Interest earned as % APA	33.4%	30.7%
Interest paid as % APA	(30.2%)	(33.7%)
General expenditures as % APA	(5.4%)	(9.3%)
Result	(2.2%)	(12.3%

While a yield of 35.6 percent over productive assets would have been needed to reach operational equilibrium in 1982, the minimum required yield rose to 43 percent in 1983.

In summary, the terms of competition, the demand for funds, and the extraordinary return on savings in dollars in both 1983 and 1984 caused pressure on interest rates and raised them to levels which were incompatible with the ability of Lima's Mutuales to lend for housing.

5. Financial Situation of the Mutuales in Other Areas

The balance sheets (Appendix Table A.22) show a performance different from that in Lima, as summarized below:

- Productive Assets: Stayed at the same overall level, 90 percent of total assets in 1982 and 89 percent in 1983. Available assets declined, but investment and housing loans increased, giving a stable picture, as evidenced by indicator 1 in Appendix Table A.23.
- Non-productive assets: Except for interest receivable, which increased 1 percent (exactly the amount of the decline in productive assets, reflecting a growing default level which must be dealt with), the other non-productive assets stayed at the same levels between 1982 and 1983.
- Attraction of resources: Despite a decline in savings (-2 percent), BANVIP loans increased 1 percent and FONAVI funds increased 3 percent. This increase is shown in indicator 3 (Appendix Table A.23) with a slight decrease (-4 percent) in the weight of productive assets, but, nevertheless, because of acceptable yields these new loans are very low-cost.
- Capitalization: This area reflects an the improvement in real terms, with capitalization going from 5 to 7 percent of liabilities, and the ratio of own resources to deposits (indicator 4) growing from 7.4 centavos per sol to 8.7, a 17.6 percent increase.
- Statement of Financial Results: The margin improved during 1982-83, permitting absorption of costs which increased at a much lower rate than in Lima.

To illustrate the situation more clearly, we include below indicators 5, 6 and 7 from Appendix Table A.23:

	1982	1983
Interest earned as % APA	42.4%	41.0%
Interest paid as % APA	(37.1%)	(34.5%)
General expenditures as % APA	(4.9%)	(6.5%)
Result	0.4%	---

Although the period showed a decline, the system in the interior maintained operational equilibrium.

6. Proposed Law for the Mutual System

The two factors causing greatest distortion in the system during the past decade were:

- Opening the Mutuales to commercial credit, by approval of BANVIP.
- The change in composition of the Boards of Directors through a mixed management system with representation of three groups: the Mutualistas (savers), workers, and BANVIP.

These circumstances created problems and confusion, so on January 9, 1981, the government issued Law No. 23236, creating a commission to draft the "Proposed General Law for the Mutual Housing System" within 120 days, and immobilizing the Boards of Directors until the new law was put into effect.

The proposed law was drafted and presented to Congress, but to date--nearly four years later--it has not been approved. This has caused an additional climate of uncertainty for the Mutuales.

The proposed law stresses housing as the primary objective, but it legalizes operational diversification and grants broad powers of activity to the Mutuales. It also includes the possibility of constituting Savings and Loan Associations as corporations. The resolution of this bottleneck--the lack of a new law--is critical for the future.

7. Final Observations

The following conclusions can be drawn from the above:

- The Mutual System as a whole is undergoing a process of decapitalization and growing inefficiency.
- It has retained its structure in the face of inflationary decline, at the price of losing its shelter identity.
- The lack of a national housing policy has reduced the possibilities for further shelter activity by the mutual system and has limited the use of this very important source of funds.
- The opening of the financial market to free competition, the limitations of the Mutuales in dealing with this, and the differences in performance and costs in Lima versus other areas, all constitute a basis for analysis and point the way for a restructuring of goals and strategies.
- Despite its problems, the system has not lost its public image as the major financer of housing, and it is the only private shelter intermediation system which is truly nationwide.

D. PERUVIAN HOUSING BANK (BANCO DE LA VIVIENDA DEL PERU)

1. Introduction

This institution was founded as a state development bank, a public corporation with full legal and administrative autonomy. It was created on November 20, 1962 (Decree Law 14241). The law grants BANVIP broad powers for institutional promotion and attraction of internal and external resources, including emission of secondary market securities and instruments.

In its early stages, BANVIP was closely linked to the development of the Mutual System and served as its headquarters. Although this activity continues, it is no longer a principal one, occupying a secondary place in the current intricate framework. Due to its concurrent status as headquarters and development bank, BANVIP wavers between being a second-line and a first-line bank, but its predominant function is as the latter. BANVIP opened nine offices between 1981 and 1983, so that it now has a network of seven

branches and nine offices, plus the main office, and a staff of 760. The organization chart shows the complexity of BANVIP's structure, with three main areas (Administration, Development and Commercial), 12 divisons, 32 departments, and 36 sections and subsections. There are also nine offices which provide direct support to general management.

BANVIP has historically been the exclusive allocator of institutional funds for housing, and its growth has been based on this activity. But the impact of FONAVI funds during the past three years has converted BANVIP into the second largest state development bank in volume of assets, exceeded only by the the Banco de la Nación.

2. Attraction of Resources

BANVIP does not capture directly from the market, so its deposit account, which went from 21.4 to 45 billion Soles from 1981 to 1983, gets 60 percent of its funds from the reserves of the Mutual System and the rest primarily from institutional deposits. Of greater interest are the following resources especially designed for support to the housing sector:

- Guarantee Fund (DL-19604): Since 1972, all performance guarantees paid by contractors to the State are deposited in BANVIP. The interest rate on these funds is 22 percent, which guarantees a cheap, stable source of funds. In the last three years these funds have had the following evolution:

1981	S/8,640 million
1982	16,508 million
1983	32,428 million
Change	275.3%

- Mortgage Bonds (Decree Law 17863): This decree gives BANVIP authority to issue bonds with a general guarantee on its assets and obligatory purchase by certain entities. To date, bonds worth 30,900 million Soles have been issued, of which 26,204.8 million had been allocated as of December 31, 1983. The interest rate is 19.5 percent, payable quarterly. The bonds were distributed as follows:

Mutuales	S/1,400 million
Insurance Companies	2,950 million
Contractors and Builders	26,400 million
Enterprises with housing programs	100 million
Commercial Banks	50 million
Total	30,900

These figures show that 85.4 percent was absorbed by organizations directly related to the housing sector.

- External Credits: BANVIP has been a steady allocator of external credits:

1981	S/23,229 million
1982	46,415 million
1983	77,558 million
Change	233.9%

BANVIP is not liable for the foreign exchange risk, except on one of its first Inter-American Development Bank loans, whose current balance is S/.325 million, or 0.4 percent of the total. BANVIP repays the Central Bank on the amount of Soles received, i.e., at the exchange rate on the date of transaction. Although this eliminates serious risk to BANVIP and the sector, it involves an indiscriminate subsidy and places the burden of debt servicing on the Central Bank.

- FONAVI is the current largest source of funds, but due to its structure as a capital account and its impact on Bank operations, it will be analyzed separately below.

BANVIP thus has stable sources of funds which permit efficient credit management.

3. Placements

BANVIP currently finances practically all sectors involved in shelter activities, from infrastructure to finished housing. In annual placements (Table III.8), within a framework of strong overall growth, the most active areas are provision of services, housing and FONAVI; the smallest growth was in assistance to the Mutuales. This is consistent with the earlier observations on BANVIP direct market activity in different sectors.

In terms of accumulated credits by institutional areas, FONAVI and the private construction sector had the highest growth, compared to the virtual nongrowth of the Mutual System. Considering that these are current values, the Mutual System actually experienced a significant loss.

TABLE III.8

BANVIP: PLACEMENTS 1981-83
(Millions of Current Soles)

CREDITS PER YEAR PER SECTOR	1981	%	1982	%	1983	%	% Change
Provision of Services	9,708	11	15,342	7	46,828	14	382.4
Urbanization	2,363	3	1,399	1	6,801	2	187.8
Community Facilities	478	1	756	--	2,357	1	393.1
Housing	3,311	4	9,316	4	25,227	7	661.9
Credits, Construction Industry	24,641	29	78,184	34	79,545	23	222.8
Credits, Mutuals	4,637	5	4,764	2	12,316	4	165.6
Credits FONAVI	39,708	47	118,902	52	165,982	49	318.0
TOTAL	84,846	100	228,663	100	339,056	100	292.6
ACCUMULATED PLACEMENTS BY INSTITUTIONAL AREA							
Public Sector	9,916	8.1	11,572	4.3	16,006	3.1	61.4
Coop. Sector	8,859	7.3	13,550	4.9	18,750	3.7	111.6
Mutual Sector	21,060	17.3	18,164	6.6	22,280	4.4	5.8
Private/Commercial Sector	23,238	19.1	83,899	30.6	130,810	25.7	462.9
Housing Programs*	58,613	48.2	146,628	53.6	322,020	63.2	449.4
TOTAL	121,686	100	273,993	100	509,886	100	319.0

*Includes FONAVI

Source: BANVIP

4. Financial Situation

The balances for the last three-year period, seen in Appendix Table A.24, show a growth of 148.2 percent at current levels, and a 36.2 percent decline in constant 1979 Soles. Liquid assets declined from 40 percent of total assets to 11.3 percent, creating possible cash flow problems, and FONAVI allocations increased by 227.8 percent to 45 percent of total assets.

The FONAVI fund creates a distortion factor in BANVIP. Its size distorts the figures and, because of the way it is managed, it cannot be considered BANVIP's own operation, since BANVIP functions as hardly more than a caretaker.

Aside from the above, BANVIP has had growth in its own allocations and in works in progress. The percentage of non-productive fixed assets has dropped, which is in itself a positive trend. However, the bias brought into the analysis by FONAVI funds does not allow us to conclude that this shows financial growth. Liabilities also and unavoidably show the weight of FONAVI, which accounts for 52.6 percent of the institution's total liabilities.

Since FONAVI is considered a capital account, it adds an apparent financial financial strength, which in practical is nominal since BANVIP cannot integrate it into its operational policy. Thus, BANVIP's efficiency, measured by its return on capital, was 0.7 percent for 1983, i.e., nil. FONAVI must therefore be considered a bank service to the sector. Except for FONAVI, the two most dynamic areas of savings attraction during this period were deposits and external borrowing, as mentioned earlier.

With regard to financial results, although the margin increased, expenditures lowered profits by 46 percent from 1982 to 1983. The statement of financial results also shows that, despite the 56 percent increase in assets in current values between 1982 and 1983, interest income dropped 8.5 percent and interest expenses dropped 22.4 percent as a result of the heavy use of subsidy funds from FONAVI, which affected BANVIP accounts. This situation, which is so contrary to that of the market, is clear evidence of the non-financial criteria with which the sector has been managed.

The constant value balances (Appendix Table A.25) show a 1982-83 decline of 25.5 percent. With the exception of FONAVI and works in progress, all other assets decreased, particularly investments. All categories of liability decreased except for Other Liabilities, which is mainly accounts payable, so liabilities had negative growth.

The liability categories which suffered the greatest decline are those related to the internal money market, i.e. deposits, bonds, internal debt, and capital.

The operations of BANVIP have become more removed from financial reality, as evidenced by the decrease in income (55.7 percent), which was more than double the decrease in assets, and the decrease in financial costs (61.3 percent) during a period of galloping inflation.

Finally, the financial indicators (Appendix Table A.26) show general internal stability over 1982-83. Productive assets as a percentage of total assets (indicator 1) only declined 0.5 percent, while as a percentage of deposits (indicator 2), they increased, regardless of whether FONAVI was treated as a deposit or a capital resource.

The capitalization ratio (indicator 3) excludes FONAVI since this would completely distort the figures. The ratio fell 7.2 percent, although it stayed reasonable at 18 centavos per Sol of debt. Despite what has already been mentioned about the decline in output and general expenditures, operating costs over productive assets (indicator 6), stayed at 3.8 percent for the two-year period.

5. Observations

BANVIP is without a doubt the most important support structure in the housing sector, but it suffers from lack of a national housing policy. The accumulation of lines, funds and programs from various sources is creating a heavy bureaucratic load, and could affect BANVIP's financial soundness as well as distort the governing role which the institution should maintain. So far, FONAVI activity has not improved or benefited the institution.

E. NATIONAL HOUSING FUND (FONAVI)

1. Introduction

The National Housing Fund (FONAVI) was created by Decree Law No. 22591 on June 30, 1979. Pressure to create a fund of this nature became more acute with the inflationary trend of the seventies. FONAVI was conceived as a compulsory savings system based on employer contributions. Its primary purpose was to build worker housing for lease with option to buy. The concept evolved toward providing housing directly to contributors, making credit available for individual purchases as well as for financing construction and upgrading. The term "social mortgage" is applied to FONAVI because it is an instrument for accessing subsidized housing.

2. Current Situation of the Fund

a. Resources

By October 1984, the Fund had received 389,759 million Soles distributed as follows:

Employers	S/333,180	85%
Employees	S/ 41,647	11%
Contractors	S/ 14,932	4%

The law requires obligatory contributions from employers and employees. Employees contribute 1 percent of wages, with a maximum base not to exceed five times the urban minimum wage established for Lima. Employers contribute 4 percent of wages on the same basis. An additional source of funds is 3 percent of the value of works under contract with FONAVI, which is paid by construction firms and providers of goods and

services. Also authorized is the emission of Class A Bonds with compulsory purchase by the Social Security Institute and insurance companies, and Class B Bonds for market investment. The interest rate structure for "social mortgages" makes these important instruments unviable because FONAVI cannot offer financial returns on them.

b. Fund Management

Current regulations give BANVIP custody and management of FONAVI and specify that it should be treated as a proprietary fund of the Bank. This could lead to the conclusion that BANVIP has full control over FONAVI, but in fact FONAVI's programs are defined on a political basis by the Ministry of Housing. In reality, BANVIP's action is limited to adjusting FONAVI's cash flow according to the needs of Ministry programs. Implementation does not involve activity on the part of BANVIP, because ENACE has exclusive control over project execution, for which it charges up to 9 percent of the estimated cost. Promotion and distribution of units is also handled directly by ENACE in Lima and indirectly in the interior, for which ENACE receives 2.5 percent.

Legal instrumentation of credits and collections is handed over to the intermediaries, mainly BCH and the Mutuales, through a BANVIP-FONAVI-Intermediaries agreement. The intermediaries receive no remuneration for management, and in some cases they assume the credit risk.

Defaults on these credits are expected to be very high because of the following factors which generally contribute to default:

- The dwelling unit is not acquired through a search; rather, it is won in a lottery and represents something offered by the government to the buyer almost as a right.
- The extremely broad qualification standards award housing to clients of very diverse backgrounds, creating problems of coexistence in projects.
- The financial intermediary is not considered the real creditor.
- Monetary crisis can make collection more costly than the expected benefit.

The once fond hopes that FONAVI would serve as a lever for developing the housing sector have been left behind, because most of the resources have been treated as public funds to be used for government projects. This has frustrated the housing finance institutions as well as those contributors who had no interest in official programs.

c. FONAVI Policy

The evidence indicates that FONAVI's policy has been to finance political programs without becoming involved in any overall policy and without concern for resolving problems of productivity or financial distortion in the housing sector. The fact that FONAVI has been used as a political instrument has caused subsidy levels to exceed any reasonable margin, and its discrepancy with the evolution of the market has caused further market distorted. Its lack of integration into any long-term policy has led to short-sighted management, giving it limited possibility for future survival. These are serious matters which deserve a more detailed analysis.

3. Implicit Subsidies in the Management of FONAVI

a. Clarification of Terminology

FONAVI is not managed as a typical subsidy for providing shelter solutions to sectors of the population that cannot afford it. The FONAVI strategy centers around production of housing as a self-justifying concept. Programs are selected on a political basis, and then clients are sought for these projects, even if costs are not recovered in order to make them attractive on a large scale. In theory, a subsidy can be a positive action in response to a definite need, but FONAVI is a case of investment in programs for political impact. In this frame of reference, it is less accurate to call it a subsidy (indeed, many of the FONAVI beneficiaries need no subsidy), than it is to call it an amount that FONAVI has decided to lose, give away, or not recover on its investments.

b. Credit Subsidies

Construction: A subsidy is usually quantified by analyzing long-term credit. However, there is also a period of loss of value during short-term construction financing.

The market interest rate is over 100 percent, so money is a very costly resource, and FONAVI grants it free during construction. As a result, not only are housing production costs distorted, but losses are enormous, as shown in the following example.

- Assumptions: A mortgage interest rate of ±60 percent (although this is negative in real terms, it will be used as an example because it was the going rate during the period of this study).
- Terms of finance: Two years--so on the average the money is used for one year.
- Amount financed: 1,000 million Soles.
- Minimum return needed: 1,000 x 60% = 600 million.

Projecting this margin on the volume of FONAVI funds applied during 1979-1983 to finished and unfinished units, one obtains the following figures:

- Amount applied: S/397,948 million.
- Effective return during construction period: zero.
- Minimum return expected: 397,948 X 60% = 238,769

- Total sum that should have been recovered: 397,948 + 238,769 = 636,717.
- Effective amount: 397,948.
- Uncollected: 238,769/636,717 = 38%.

This estimate of the loss corresponds to actual financial terms. Considering that inflation exceeded 100 percent in 1983 and 1984, it is more than probable that the real loss equalled the amount loaned.

FONAVI has also received donations of public land from the government. This land has been developed at prices below commercial value, thus increasing the subsidy.

Long-term financing: Given the distorting effect of long-term negative real interest, FONAVI's losses are magnified over the lifetime of the portfolio. Using as an example two loans made in 1984 for 1 million Soles, one by the Mutual System and the other by FONAVI, the result would be as follows:

- Assumptions:

	MUTUAL	FONAVI
-Term	10 years	10 years
-Interest	63.5%	3%
-Payment begins	Immediately	2 yrs. 50% grace 3 yrs. 50% grace
-Amount	S/1,000,000	S/1,000,000

- Recovery Table:

Year	Mutual	FONAVI
1	635,930	- 0 -
2	635,930	- 0 -
3	635,930	74,570
4	635,930	161,130
5	635,930	161,130
6	635,930	161,130
7	635,930	161,130
8	635,930	161,130
9	635,930	161,130
10	635,930	161,130
TOTAL	6,359,300	1,041,350

- Recovery ratio: 1,041,350/6,359,300=16%
- Donation, subsidy or loss: 100 - 16 = 84%

If one adds to this the negative real interest rate and the effect of reinvestment, the FONAVI loan technically disappears.

4. The Future of FONAVI

If FONAVI is to survive, it must improve its operational capacity through bringing its levels of recovery and savings attraction closer to market values. In terms of investment recovery, FONAVI is now an aggressive decapitalization mechanism; its attraction of savings has been stunted by freezing the contribution base wage at a limit of S/.300,000, or five times the minimum wage of S/.60,000. These two factors taken together imply a short-term loss of effectiveness for FONAVI. For this reason, alternative systems should be considered.

Currently, FONAVI is disappearing, as shown by the figures in Table III.9. Between 1980 and 1984, the Fund lost 66 percent of its value.

Any recommendation on new income for FONAVI must involve a change in its management and the financial context in which it operates. If FONAVI is not put on a sounder financial footing, there is little point in making further contributions, given that it distorts the shelter market and turns most families' most important investment into a matter of luck and virtual donation for the fortunate few and decreased affordability for the majority.

With this background, FONAVI is left with three hypothetical channels for obtaining more funds:

- Fiscal contributions: This is unlikely because of the large fiscal deficit.
- Borrowing in the financial market: In theory, FONAVI should have a high capacity for mixing its own funds with other borrowed funds. Its current low financial returns are an obstacle to topping this important source, which FONAVI's organic law expressly allows it to use.
- Full application of contributions: The average minimum salary in 1984 was 3.46 times that of 1982, when the freeze on FONAVI's contribution base occurred (Table III.9). If revenues had grown at the same rate, constant Soles would have reached S/36,000 million. Applying an additional difference of 15 percent would give S/30,600 million, i.e., the same amount as the base year, 1980. Eliminating the ceiling on the contribution base seems justifiable because keeping the ceiling is most harmful to those who earn the least; it would be least harmful to them if the ceiling were dropped. Moreover, since the employer pays the larger share, the change would have less impact on the employee. There is also always the alternative of keeping the ceiling for the employee and dropping it for the employer.

Whichever solution is chosen, any modification of FONAVI must also include definitions of the following:

- FONAVI's role in the context of a national shelter policy.
- A master financial plan for the short-, medium- and long-term.
- Institutional coordination with the other financial intermediaries.
- Improved sectoral productivity standards to be reached.

- Opening up FONAVI as a source of credit and rediscount in the formal housing finance sector (i.e. taking advantage of FONAVI's leveraging potential).

TABLE III.9

FONAVI: RESOURCES CAPTURED
(Millions of Soles)

YEARS	CURRENT AMOUNT	PRICE INDEX	REAL AMOUNT	EVOLUTION INDEX
1980	30,676	100.0	30,676	100
1981	54,822	172.7	31,744	103
1982	65,829	298.6	22,046	72
1983	109,141	672.5	16,229	53
1984(e)	140,000	1,344.3	10,414	34

MINIMUM SALARY EVOLUTION IN LIMA:

	1980	1981	1982	1983	1984[1]
January	18,000	27,390	40,860	60,000	135,000
December	25,350	37,140	60,000	135,000	210,600(P)

(P) Projected

1/ Starting in September, a supplementary bonus of s/75,600 per month was added onto the minimum salary of s/210,600.

Source: BANVIP

F. CENTRAL MORTGAGE BANK (BANCO CENTRAL HIPOTECARIO)

1. Introduction

BCH was established in 1929 (Decree Law 6126) as a limited liability corporation for the purpose of issuing mortgage guarantee loans.

In March 1969 (Decree Law 17521) BCH was integrated into the economic and finance sector, and today it is one of the state development banks, with a current network of 61 offices throughout the country and 1,494 employees.

2. Attraction of Resources

BCH has been the country's largest mobilizer of internal savings, to a certain degree a monopolizer. Its two instruments for accomplishing this were:

- Ordinary bonds: Long-term, for loan financing, traded on the Stock Exchange.
- Mortgage bonds (Law 12464): Standard savings instruments, redeemable on sight and non-transferable, not traded on the Stock Exchange.

The interesting point about these instruments is that they are typical of the housing sector and the secondary housing finance market.

Besides BCH's pioneering activity, it was the first bank to generalize the use of readjustable loans and deposits. This has caused it serious problems with its credit portfolio. These problem are currently under study, and the outcome of these investigations will have an important impact.

In 1975, BCH controlled 40.6 percent of the total savings market. This figure dropped to 18.6 percent by December 31, 1983 and 15.6 percent by August of 1984. This decline reflects the loss of competitiveness of BCH's instruments and the volatility of the current open market in which the interest rate is the primary motivating factor.

Of the two instruments mentioned above, the long-term bond has practically disappeared, and only the mortgage bond, which is actually an ordinary financial savings account, is being maintained as a basic instrument for the Bank, as can be seen in the figures below:

(millions of Soles)	1979	1980	1981	1982	1983
a. Mortgage Bonds	54,847	98,105	220,614	299,790	382,447
b. Ordinary Bonds	3,591	3,498	3,202	2,940	2,658
% b/a	6.5%	3.6%	1.5%	1.0%	0.7%

(Source: Superintendencia de Banca y Seguros)

BCH continues to be the leader in financing because it moves money on a large scale and has a strong public image and penetration. The dual influence of the economic circumstances of the market and the Bank's operating policies have affected its financial situation and capacity.

3. Placements

BCH traditionally invests its entire portfolio on a long-term basis and has major participation in the social mortgage programs of FONAVI. The 1981-83 investment pattern (Table III.10) shows growth in the mortgage portfolio. The critical negative factor is the 956.5 percent increase in uncollected loans, which accounted for 16.2 percent of all investments in 1983. This is a serious operational problem, partly attributable to the negative effect of readjustable loans, whose value increased faster than incomes, creating situations of inability to pay, and partly to unsold projects. The problem of delinquency has reached such proportions that it must be resolved quickly, since uncollected loans represent nearly double the current capital and reserves.

TABLE III.10

BCH: PLACEMENTS
(Millions of Current Soles)

	31-Dec-81		31-Dec-82		31-Dec-83	
Mortgage Financing	33,466	52.1	96,922	52.8	192,959	52.1
Social Mortgage Financing	7,888	12.3	23,114	12.6	39,141	12.2
Uncollected Loans	4,894	7.6	14,901	8.1	51,702	16.2
Defaults Under Legal Process	---	---	---	---	564	0.2
Other Placements	17,945	28.0	48,711	26.5	35,294	11.0
TOTAL	64,193	100.0	183,648	100.0	319,660	100.0
Constant Soles (1979=100)	18,936		31,323		24,224	

Source: Superintendencia de Banca y Seguros

As far as the users of credit are concerned, BCH has maintained its policy of segmentation of credits by size among different groups, as shown in Appendix Table A.27. The illustration below shows the number of finished solutions from that table:

	1981		1982		1983		TOTAL	
Categories of Loans	Loans Terminated	%	Loans Terminated	%	Loans Terminated	%	Loans Terminated	%
Minimum Level	799	29	803	20	1,858	54	3,460	34
Mid-Level	876	32	1,110	27	646	19	2,632	26
Maximum Level	1,065	39	2,205	53	939	27	4,209	40
Total	2,740	100	4,118	100	3,433	100	10,301	100

(Source: Superintendencia de Banca y Seguros)

The loan profile indicates a growth trend toward the minimum level. It would be interesting to see if there is a relationship between uncollected loans and the large number of high-value loans.

4. Financial Situation

The most prominent feature in the financial statements (Appendix Table A.28), aside from the lack of growth, is the rapid transformation of liquidity into loans, which is positive, except for the delinquency rate in the current portfolio mentioned above. The most dynamic categories of assets have been interest receivable (defaults) and fixed assets, which both increased by four times the average and, taken together, have had a negative impact.

The following points should be made concerning the 1982-83 financial results in constant values (Appendix Table A.29):

- Growth: Negative (-32.8 percent), reflecting the difficulty of coping with the current inflationary trend.
- Productive Assets: Available assets and investments suffered serious declines, losing 26,081 million Soles between 1982 and 1983.This loss was not compensated by growth in credits, which also had a constant value decline of S/. 1,104 million. The institution suffered a severe setback as far as maintenance of economic value was concerned.
- Non-productive Assets: Their weight in the overall structure grew from 6.7 percent to 9.5 percent, hindering flexible operation.
- Attraction of Resources: Traditional savings declined (-38.3 percent), which also means a loss in value and image of the Bank's savings instruments. Some of this decline has been compensated by the establishment of fixed term deposits, a typical instrument in commercial banking in the current market.
- Capitalization: Despite the aforementioned limitations, the level of capitalization grew during the period, making for a more stable structure.

- Statement of Financial Results: Income between 1982 and 1983 decreased slightly more than assets, -34.0 percent compared to -32.8 percent. Likewise profits dropped from 3.2 percent to 2.2. percent of income. Nevertheless, BCH still maintains a positive bottom line. Profits declined because of increased expenditures and not from loss of financial margin, which actually increased. However, taking delinquencies into account, one wonders what portion of BCH's positive financial result is purely attributable to the accounting structure.

Of the first three financial indicators given in Appendix Table A.30, only the debt-to-capital ratio (indicator 3) had a positive change from 1982 to 1983. The other two declined, reflecting a decrease in funds for generating income. Indicators 4, 5 and 6, which show financial costs, reveal the following:

	1982	1983
Interest earned as % APA	51.6	51.8
Interest paid as % APA	<45.5>	<44.0>
General expenditures as % APA	<4.1>	<6.1>
Result	2%	1.7%

Increased operating expenditures are responsible for the reduction in effective income-generating capacity.

5. Observations

BCH's great solidity is making it possible for it to survive in the current economic crisis, but there are too many symptoms of financial deterioration which point to a need for operational restructuring. The internal policy and planning structures of BCH clearly need to be reviewed. Likewise, a bank which is primarily shelter-oriented cannot easily function in a sector lacking an overall, coherent policy. BCH must seek its proper position as a financial intermediary, because it depends solely on its ability to compete in the open market. There are frequent contradictions between BCH's official status as a state development bank and its mandate to operate in the open savings market. This tension can lead to establishment of policies that are divorced from reality. The difference in sources of funds between BANVIP and BCH is the clearest example of the difference between two state development banks in the same sector. One of the most important and urgently needed changes in BCH would be to restore BCH's flexibility to respond to the current Peruvian financial market.

G. MATERIALS BANK (BANCO DE MATERIALES)

1. Introduction

This institution was established as a private state enterprise by Law 23220 of September 27, 1980. Despite its name, it is not a bank, nor is it controlled by the banking system or the Office of the Superintendent of Banks.

The purpose of the bank is to grant credit for building, finishing, or upgrading housing for low-income families in predominantly low-income areas.

Credits are given in kind, i.e., in materials. The bank's activity is extensive throughout the country and is carried out by various institutions in both the formal and informal sector, including the Mutual System. It provides the market with a specialized entity to handle this major segment of shelter demand.

The growth of and complexity achieved by the BM has been surprising. In just four years it has grown to 16 offices and 250 staff members.

2. Loan Features

Although a property title is required, a mortgage is not necessary. Loans may be guaranteed by payroll deductions, or by third-party, employer, or commercial guarantee. The maximum loan is based on a standard "basket" of materials and is adjusted periodically, having risen from 500,000 Soles in 1980 to more than 7 million in 1983.

The maximum term is 30 months, and the interest rate, which is revised periodically, was between 22 and 29 percent in late 1984. The BM thus offers a fully subsidized loan. The only essential operating advantage the Banco de Materiales has over FONAVI is its short term of recovery.

To date the Banco de Materiales has not been operating long enough to evaluate the default situation, but the high percentage of loans with direct payroll deductions would seem to guarantee an acceptable rate of recovery.

3. Loans Issued

The growth in the number and value of loans has been extraordinary, as the following figures show:

	Number of Loans	Amount (millions)	Average Loan (thousands)
1980	14	5	357
1981	2,218	1,034	466
1982	5,809	5,354	922
1983	12,481	18,486	1,481
Total	20,522	24,879	1,212

(Source: Banco de Materiales)

There is no doubt that there has been a large response to the program. By 1983 its operations had expanded to 16 of the country's departments.

4. Resources

Since the Banco de Materiales does not capture resources in the money market, its standard sources are capitalization and borrowing, aside from operational recovery. The government provided the Bank with 1 billion Soles of capital, and it has been growing through new contributions and earnings. In addition, during 1982 and 1983, the Bank received two percent of the

amounts contributed for FONAVI quotas. These resources, received directly from the Banco de la Nación without going through FONAVI, are accounted for as capital, although the legitimacy of this procedure seems doubtful. However, the amount collected from this source exceeds nominal capital. With respect to borrowing, the Banco de Materiales has made use of large-scale loans, particularly from soft BANVIP lines.

The rapid growth of demand for BM loans in the Bank's short lifetime, together with the majority of the population's practical inaccessibility to formal credit for housing, make it possible to forecast a growing need for resources for new loans in the next few years.

5. Financial Situation

The average balances for 1982-83 in constant Soles (Appendix Table A.31) show the following:

- Growth: The 45.2 percent real increase in volume is without doubt an important achievement.
- Productive Assets: The greatest growth is in loans, a logical effect of operational startup. The other category reflecting major growth is materials inventory, which is a function of the volume of loans. The buildup of the materials inventory is a critical aspect of the BM's internal control where problems could arise.
- Non-productive Assets: Declined in real terms, which is a positive trend from the point of view of institutional productivity.
- Borrowing: This is the highest growth category. Future financing operations should be planned in such a way as to facilitate flexible and large-scale future borrowing.
- Capitalization: Although it maintained a good ratio to total liabilities (32.6 percent), it has declined in absolute and relative terms, which is an indication of possible future structural weakness.

An analysis of the 1982-83 financial results shows:

- Growth: Total productivity increased but at a noticeably lower rate than the balance, 13.6 percent compared to 45.2 percent.
- Financial Result: This figure indicates negative growth, which is the result of decreased financial income and increased expenditures.
- Income on Sales: This category, consisting of the difference remaining in the Bank's favor in allocation of materials, is the second largest and is close in amount to financial income. Technically speaking, it is a sound source of income, but basing the institution's solvency on this category involves undeniable risks because it distorts the credit function, which should be the operational basis of the bank, and it lends itself to extra-operative manipulation, a masking of internal inefficiencies.
- Operating Expenses: Although it may be inappropriate to categorically judge the disproportionate growth in general expenses, which were 72.2 percent of income in 1983, it is clear that if they remain at the same level the institution's medium-term financial viability will be nil. The

growth in operating expenses could reflect high short-term start-up costs with the prospect of a future decline. In any case, this matter should be thoroughly studied before it exceeds reasonable limits.

- Financial Results: Profits fell by 79 percent, i.e., growth did not mean greater efficiency, but rather a rapid increase in costs. This tendency must be reversed if the system is to survive without a permanent subsidy.

6. Observations

The experience of the Banco de Materiales is quite interesting, but it gives the impression that enthusiasm for operation has relegated the necessary planning and financial control to a position of secondary importance, yet these are needed for long-term survival. Otherwise, the capacity for new borrowing at reasonable rates will disappear. Considering the youth of the institution, now is the time to take effective action.

H. NATIONAL BUILDING ENTERPRISE (EMPRESSA NACIONAL DE EDIFICACIONES)

This state enterprise was established on June 12, 1981 by Decree Law 149, with a threefold objective:

- To assume responsibility for the activities of the old EMADI-Peru (government real estate administrative enterprise).
- To assume responsibility for the works and programs of the national housing plan, which were until then carried out by the regional offices and central bodies of the Ministry of Housing.
- To promote, plan, finance, design, execute, and allocate urban renewal programs, housing construction, and provision of related services.

The basis for ENACE's income, besides collection and recovery of previously assigned assets, is the commissions it receives for its promotional efforts, which make this its main income category. Its principal new business in recent years has been to carry out the FONAVI programs, monopolizing the use of the resources.

This heavy absorption brings to light one of the two questions which arise in analyzing this enterprise:

- What activity or gap does ENACE fill which cannot be carried out through existing institutional channels, or what contribution does it make to efficiency?
- What is the impact on the future of the shelter sector of an entity with such extensive authority and which relies for survival on direct absorption of most of the available resources for building?

So far it is difficult to see what effect ENACE has outside of its use as a political instrument. The data on its evolution in its short three-year lifetime are incomplete. Its annual report for 1983 still had not been issued by the end of 1984, so for purposes of illustration, Appendix Table A.32 summarizes its balances and financial results for 1981-1982. These figures reflect a system which is stable in composition and growth. The financial results show the weight of commissions in 1982, which represented 69.5 percent of total income, and the increase in operating expenditures.

I. NATIONAL WATER SUPPLY AND SEWERAGE SERVICE (SERVICIO NACIONAL DE AGUA POTABLE Y ALCANTARILLADO)

This institution, created in 1982, absorbed the functions of the old General Office of Sanitary Works (Direccion General de Obras Sanitarias). SENAPA started in Lima and gradually incorporated various regional units. By late 1983, it had 17 operating units in different cities. SENAPA's objectives were twofold:

- To serve 85 percent of the urban population by the end of the decade.
- To operate in financial equilibrium and be financially autonomous in its operational activity.

In its brief period of existence, its most notable accomplishments have been:

- Absorption of a national-level system in a relatively smooth process.
- Promotion of outside technical and financial backing through the IDRB and World Bank as well as European governments and organizations.

Little can be learned from the balances of an institution less than two years old; nevertheless, the symptoms of a future crisis are already appearing, and theseare mainly related to tariff policy.

SENAPA was targeted to reach its current operating equilibrium on the basis of three percent of tariff collections. Tariffs are adjusted monthly. Decree Law 23669 of 1983 limited the monthly tariff increase to a four percent maximum, and this has already produced a cash deficit in 1983. Once again the typical contradiction appears between the "financial soundness" goal and the "subsidy" reality. This could lead SENAPA to become a massive-deficit enterprise like ElectroPeru.

In 1983 SENAPA set a tariff structure where, as stated in the Annual Report, "The tariff system is based on a selective structure... establishing subsidized rates with a clearly social criterion for the low-income population." This kind of declaration assumes a clear ability to identifying which are the low-income families and a prior definition of who pays the subsidy. In reality, both of these issues are difficult to resolve, particularly in Peru. A detailed study of both issues is crucial to a determination of SENAPA's long-term viability.

SENAPA's financial situation is summarized in Appendix Table A.33. Assets increased 30 times from 1982 to 1983, and this growth was essentially accounted for by SENAPA'S two basic activity accounts, fixed assets and investments. This growth is not due mainly to activity; rather, it is due principally to SENAPA's incorporation of subsidiary water service enterprises which were formerly the responsibility of the Ministry of Housing. This situation is also reflected in SENAPA's liabilities, which rose by S/.171,790 million, of which S/.78,000 million (45 percent) is capital of the subsidiaries. It can be assumed therefore that, beginning in 1983, SENAPA began to operate with a full, national coverage system.

The financial results suggest limitations for the future. While operating expenditures in 1982 only absorbed 86 percent of income, they rose to 106 percent in 1983, thus generating a considerable loss. If this trend continues, SENAPA will become a deficit enterprise whose existence will depend on massive subsidies from the central government. This situation must be prevented by implementation of a policy of operational self-sufficiency, which implies modification of the tariff structure.

CHAPTER IV

REGULATORY ISSUES AND PHYSICAL STANDARDS

The main objective of this chapter is to review and assess the technological and regulatory issues that influence the production costs of shelter in the formal (public and private) and informal sectors.

A. SHELTER COSTS

1. Introduction

The major contributions to a better understanding of shelter production costs in Peru are the recently published ININVI and INADUR studies.[1] These studies have been the basis for many of the issues reviewed in this chapter.

The ININVI study distinguishes three general areas that have an influence on cost: technical, administrative, and legal/regulatory, all of which are closely interrelated. On policy matters, one of the most pertinent issues raised with respect to cost reductions is that reducing the level of services by reducing standards and "building less" in the initial stages of a housing project really means less initial investment but not necessarily less final cost. The study argues that, in an inflationary period, any works undertaken at a later point in time or in a progressive manner will always cost more. This is partially true. On the other hand, lower initial investment or lower initial development cost must also be considered from the standpoint of affordability, as a way to provide access to formally produced housing solutions for low-income families that otherwise would not be able to afford legal housing.

Another matter of concern with respect to this issue arises from Norm II-VI-26 of the "Reglamento Nacional de Construcciones" (National Construction Regulations) which establishes that any progressively-developed shelter project ("habilitacion urbana progresiva")--such as a sites and services project--developed by a private, community, or public entity must be completed up to "full" standards within 10 years of the official adjudication of the project. Any non-public works not completed by then (e.g. paving, parks, etc.) become the responsibility of the appropriate public agency. The ININVI study argues that public agencies should be freed from the future burden of having to complete these works and that responsibility should remain in the hands of the promoters/builders or the users. If this Norm is to remain unchanged and if, in fact, public agencies can undertake these works more effectively then phasing should be introduced with cost recovery in mind.

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[1] ININVI, Estudio de Factores que Inciden en los Costos de la Habilitacion Urbana, su Mantenimiento y Servicios, Lima, Peru, Marzo de 1984. INADUR, Estrategias Alternativas para el Asentamiento Urbano en el Peru, Anexo 4-A, Analisis de Costos de Vivienda, Lima, Peru, Noviembre de 1984.

With respect to housing construction, if most future developments were to consist of no more than serviced sites and basic core units, could one expect the occupants to improve and expand them later? The vast amount of housing improvement undertaken by Lima households, which has been documented, leaves no doubt about the answer.[2] Much construction would continue to be informal but it would be working with a better, more efficient initial site and unit. Progressive development schemes must be viewed as a way to facilitate an existing construction process.

2. Construction Standards

Standards and specifications for residential developments are found in the "Reglamento Nacional de Construcciones." Even though there has been progress over the years with respect to increasing flexibility on the typology of housing solutions that can be built, the Reglamento has many disadvantages due to the multiplicity of changes, amendments and up-dates that have been made to it over the years. The accumulation of new resolutions and specific provisions makes the Reglamento a document that is difficult to work with.

The Ministry of Housing, several years ago, drafted the outline of a new normative structure called "Normas Tecnicas de Edificacion" that was intended to replace the present Reglamento.[3] However, this proposal has yet to be fully elaborated or approved. The new "Normas Tecnicas" will cover the design, construction and maintenance of housing.

Many technical factors have an effect on cost:

Location

- Topographical and soil conditions;
- Climate and transportation;
- Distance from trunk lines;
- Distance from water sources or sewage outlets.

Design/layout

- Land use allocations;
- Densities;
- Lot sizes and proportions.

Achieving high densities is often considered a principal way to lower project costs. The ININVI study mentions that densities should be "as high as possible" and proposes residential densities of 300 to 350 persons per hectare. Traditionally, densities in Peru have been very low, due in part to the fact that land availability has not been a major problem. At lower densities, costs

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[2]See, for example, W.Paul Strassman, Employment and Housing in Lima, Peru, U.S. Agency for International Development, March 1983.

[3]Ministerio de Vivienda y Construccion, Oficina de Investigacion y Normalizacion, Normas Tecnicas de Edificacion: Nueva Estructura Normativa, Documento de Difusion, Lima, Peru, 21 de noviembre 1978.

are higher since pipes and roads must be longer, thus increasing the ratio of infrastructure lengths per unit served. Another disadvantage of low densities, from the financial point of view, is that initial investment is divided among fewer families and a greater proportion of land is dedicated to uses that do not produce rent or income (roads, sidewalks and open spaces). Projects with densities as high as 400 to 600 persons per hectare have proven to be beneficial financially and to provide good environmental quality.

The production of affordable housing should be the guiding principle for the preparation of design specifications. Variations should exist with respect to what beneficiaries of different income levels can afford. The balance between the cost of what is produced (levels of services, lot sizes and densities, built-up areas, etc.) and what can be recuperated through payments is a crucial relationship that needs to be addressed in Peru. The use of appropriate tools to measure this relationship is badly needed at this point. The use of the Bertaud Model for project design, as mentioned in the ININVI study, is one useful approach.

3. Infrastructure Standards

In the Lima metropolitan area, specifications tend to be rather lavish even for simple serviced sites intended for core housing. Core housing projects like the World Bank-funded Pachacamac show broad streets equipped with concrete curbs and sidewalks, as well as underground electric lines and modern light fixtures on closely-spaced poles.

Research in water, sewerage and electrification standards has been very weak. The ININVI study points out that almost no research has been done in these areas that could serve as the basis for changes in the present standards or in the technology applied in manufacturing and implementation.

Electrification and sanitary norms and specifications (see below) are oriented towards large urban centers and developments. There are no specific references to what reductions could apply in low-income settlements. What this means is that the same infrastructure specifications apply to the equipment, fixtures, and materials used in luxury residential developments as in sites and services projects intended for the lowest-income families.

The ININVI study analyses the variations in water consumption norms among three different agencies. All norms without exception refer to individual connections. The Ministry of Health's norms apply to rural areas and vary according to climate and population size; consumption is between 50 to 100 liters per capita per day. SENAPA establishes for urban areas a consumption rate of about 120 to 250 liters per capita per day. SEDEPAL sets a consumption rate of 300 liters per capita per day for residential developments and 250 for "popular" urbanizations. Studies made a number of years ago for the "Plan Maestro de Agua Potable para Lima Metropolitana" (Master Water Supply Plan for Metropolitan Lima) showed that real consumption rates among low-income settlements were around 100 liters per capita per day. A study made in 1983 for Villa El Salvador, a low-income area of Lima, showed a consumption rate of only 58 liters per capita per day. Consumption rates through the use of

public communal taps have been calculated to be as low as 20 liters per capita per day.[4]

The standards used for sanitation in Peru are a translation of the American Water and Waste Association's regulations for water and sewage. Similarly, the Peruvian electric code is in essence a translation of a typical U.S. code. Three agencies intervene in reviewing and approving sanitary norms and standards: INTINTEC studies manufacturing specifications; SENAPA reviews construction-related specifications; and ININVI studies those related to housing. None of these agencies have focused attention on reducing the costs of project development.

Electrification norms are under the responsibility of the Ministry of Energy and Mines and are based on the "Ley General de Electricidad" (General Electricity Law), its by-laws, and the National Electric Code. As is the case with sanitation standards, there are no provisions in either one of these regulations that would treat low-income settlements or projects any differently from high-income residential areas. According to ELECTROPERU officials, there is a committee in charge of revising norms to make them more relevant to the population's economic reality. In addition, a consultant has been hired recently to propose ways in which standards can be reduced for rural electrification projects. As of the end of 1984, no concrete results were available from these investigations.

Among the various components of the electric network, two are identified as having a considerable influence in raising costs: a) underground as opposed to aerial installations and b) three-phase as opposed to one-phase lines. The criterion for burying cables in urban areas comes from the norms of the Ministry of Energy and Mines. Rural area installations are 100 percent aerial. Outside of Lima, aerial cables have continued to be used because equipment to detect underground failures is expensive and personnel need special training. Three-phase lines are required by law in all urban areas, although one-phase lines are adequate for street lights and small engines. One-phase lines would mean a reduction of approximately 50 percent in network costs according to ELECTROPERU officials.

An analysis made by ININVI on the cost reductions that could be achieved by lowering standards for some components that typically have a strong influence on cost in sanitation and electrification shows that a total reduction of development cost of approximately 12 percent could be achieved by:

- Reducing pipe diameters for water and sewage;
- Reducing the depths of buried pipes;
- Using double connections instead of individual connections;
- Changing water meters for "limitadores";
- Replacing manholes for "cajas de registro"; and,
- Reducing cable diameters.

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[4]ININVI, op.cit., pp. 26-27.

If, in fact, it is possible to achieve a reduction of 12 percent in sanitation and electricity installations, and assuming that another similar percentage could be saved by constructing simpler streets and sidewalks (unpaved) and increasing densities with better layouts that rationalize land uses, one must still face the question: to what extent can these savings be negated by delays in project execution and administrative bottlenecks?

4. Procedures for Project Development and the Construction Process

The most important element in cost increases in an inflationary period is time. The old concept of "time is money" holds very true for a country like Peru at this moment; however, there is evidence that the Peruvian system of shelter production and delivery is not consistent with this concept.

Delays in project execution and allocation of units are very common in Peru. In Lima, one can see hundreds of units of all types that have been finished and remain unoccupied for several months. It is also not unusual for projects that are underway to suddenly stop for a period of time; for projects to remain on the verge of completion for long periods because of some "problem"; or for projects that are approved to begin their implementation only after several months have passed.

Significant increases in financial and economic costs have resulted from these delays. Studies, official interviews, and informal conversations indicate that this problem is due to many factors related to administrative bottlenecks in the legal and regulatory framework that rules the submittal of documentation for project approvals, the approval process itself, and the construction stage.

It is important to emphasize that the most important issue being discussed is cost reduction and not reduction of standards per se. Cost reductions achieved through streamlining design and implementation should be reflected in lower amortization payments for the beneficiaries.

Delays in project production and approval happen because of the vast number of public agencies involved at various government levels, the extensive documentation that has to be prepared by the developers or by the beneficiaries, and the time taken by the agencies for processing the data.

The previously mentioned ININVI study calls attention to the need to revise the "Reglamento Unico de Licitaciones y Contratos de Obras Publicas" (Regulation for Public Works Bids and Contracts), since most low-income housing construction has been in the hands of the public sector. This Reglamento sets the rules for the bidding procedures and the requirements that private contractors have to comply with in order to execute the government's programs.

According to ININVI, the study of this Reglamento should focus on finding legal shortcuts to the lengthy process of project approval and submittal of documentation, avoiding and/or eliminating unnecessary procedures. With respect to this issue, there are occasions when the Peruvian public administration grants "amnesties" whereby, for a certain period of time, requirements of various kinds are by-passed and/or simplified. The staff of the

"Instituto Libertad y Democracia" (ILD), an organization that has been studying the informal sector, feels that these amnesties point the way toward simplification of procedures. The impact of such a measure, if implemented, would be enormously beneficial to cost reduction, although perhaps difficult to measure in the short term.

Issues related to inefficiency in the construction process itself are addressed in Section B below. Technically speaking, accelerating the production process of housing units should not be interpreted as support for mass production and industrialization. This capital-intensive approach has shown contradictory results in other countries and has caused affordability problems.

5. Construction Materials Industry

The availability of construction materials is not a major constraint in Peru, according to builders and officials. However, shortages of accessories used in infrastructure networks are common. In many cases these accessories are imported. It would be useful to evaluate the relative weight of imported components in these networks and determine ways to either substitute imports for domestic products or facilitate the timely importation of needed items.

Data from CAPECO indicate that the prices of two key construction materials, steel and cement, increased faster in the last five years than either inflation or the general construction cost index (see Table IV.1.)

TABLE IV.I
INCREASES IN STEEL AND CEMENT PRICES
(Percentage Change in Price per Year)

	Steel	Cement	General Construction Cost Index	Inflation
1980	27.9	28.8	61.9	60.8
1981	114.3	150.0	77.4	72.7
1982	152.3	86.5	83.0	72.9
1983	126.8	150.5	108.3	125.1
1984 (Oct.)	74.4	92.1	90.1	84.0
Average	99.1	101.6	84.1	83.1

(Source: CAPECO)

Between December 1979 and October 1984 the prices of both steel and cement rose at an annual average rate of about 100 percent over the period, while inflation averaged about 83 percent and construction cost escalation about 84 percent. Within these averages, the behavior of steel and cement prices was quite erratic. In 1980, steel and cement prices increased much less than inflation or overall construction prices; but in 1981, the prices of both materials jumped drastically to make up for the previous year. In 1982, steel's price increase far exceeded inflation or the construction index, while in 1983 it was cement's turn to shoot beyond the others. Price adjustments in 1984 seemed to moderate and remain in line with inflation and the general construction index.

That steel and cement prices have risen more rapidly than inflation and overall construction costs suggests that there may be inefficiencies in production of these two materials. It would be useful to explore in more detail the factors affecting their prices, key among them the pricing policies of the state-owned enterprises which produce cement and part of the steel supply. International competition and indexing of prices with respect to the U.S. dollar are also factors to be examined.

Purchasing the necessary materials and accessories at the beginning of project execution, thus hedging against inflation, is one way to approach this problem.

It is possible that the Banco de Materiales, because of the large market it represents, has the opportunity to influence the reduction of construction materials costs through the standardization and simplification of technical specifications for materials and basic components.

6. Urban Housing Costs in the Costa, Sierra and Selva Regions

Construction costs vary considerably among Peru's three main geographic regions. A brief comparative analysis based on the costs of units used in Chapter II and data from the previously-mentioned INADUR study indicates the following:

- A given amount of investment in the Costa will build roughly 1.5 times more units, of any kind, than in the Sierra and 2.5 more units than in the Selva.
- It costs almost the same to build a 40 m^2 house in the Costa as it costs to build a 20 m^2 basic unit in the Sierra or to develop a 180 m^2 sites and services plot in the Selva.
- The investment required to build a 40 m^2 minimum basic house in the Selva region will build 2.3 basic core units in the Sierra or roughly 6.2 serviced lots in the Costa.

Reasons for regional variations in cost according to the INADUR study and ENACE officials are the following:

- Concentration of industrial production in the coastal region. As a result, transportation costs are high, mainly for iron, cement and infrastructure accessories.
- Difficulties with the execution of projects due to terrain and climatological conditions. For example, heavy rainfall in the Sierra and Selva makes construction more difficult and means higher infrastructure costs for the installation of rainstorm drainage in these regions.
- The use of materials and construction systems "imported" from the Costa that are foreign to local workers.
- Lack of managerial personnel and skilled workers outside the Costa, requiring higher expenditures for training or relocation incentives.

B. THE PRIVATE AND PUBLIC FORMAL SECTOR

1. Background

One of the main characteristics of the housing market in Peru is the increase since 1979 in the public sector's participation in shelter delivery. Table IV.2 shows that up to 1978 the public sector generally accounted for less than 10 percent of yearly formal sector housing production. However, in 1979, the public sector share jumped to 37 percent of dwelling units produced and has remained in the 20 to 40 percent range since then. The data clearly indicate that this shift has been due more to the drop in private sector housing output than to the increase in public sector production.

Several important factors account for the decline in formal private sector shelter activity:

- As noted in Chapter I, the construction sector is highly sensitive to fluctuations in the national economy. The recent drop in GDP has led to a disproportionate decline in construction output.
- The recent government policy of using public and FONAVI funds to produce high-cost, high-standard housing and selling it at tremendous subsidies (see Chapter III) has placed the private sector at a competitive disadvantage.
- The original intention that FONAVI funds be used to leverage growth of the housing finance system--private and public--has never been realized. In theory, if FONAVI could raise its contributions base and its rate of return, it could take advantage of its large potential for borrowing, mixing these funds with its own resources, and rediscounting large volumes of funds to the Mutuales and other housing finance intermediaries. At the same time, FONAVI could provide a better return to contributors. In reality, however, FONAVI resources have simply been treated as direct public funds to be used for construction of government housing projects.
- At present the Mutuales, Peru's private savings and loans, are almost completely out of the housing market because high inflation makes long-term credit for housing acquisition almost universally unaffordable. In

addition, the Mutuales are handicapped by the high devaluation rate which makes dollars the prime saving instrument (the Mutuales are not permitted to operate with dollars) and by an inefficient management structure arising from a lack of definitive legislation governing the Mutual System (See Chapter III).

- The present legal/regulatory framework hampers private initiative on the part of builders, developers, and community groups. Administrative bottlenecks in the project review process are a major problem. Delays are caused by the multiplicity of agencies involved at various levels of government and by the excessive documentation required. In addition, the laws and regulations governing subdivisions, building codes, and land use are fraught with ambiguity, overlaps, and contradictions, making it difficult for the private sector to operate on the basis of clear, predictable "rules of the game."
- The long tradition of extra-legal shelter development in Peru (especially in Lima) has made it possible for large numbers of households to avail themselves of "informal" mechanisms for obtaining land and services and financing dwelling construction. Thus the decline in "formal" housing output probably reflects, in part, a shift within the private sector toward more "informal" activity.

TABLE IV.2
ESTIMATED PRIVATE AND PUBLIC SECTOR FORMAL HOUSING CONSTRUCTION 1971-1983.
(Number of Dwelling Units)

	Private Sector	Public Sector	Public Sector Percentage	Formal Sector Total
1971	42,954	4,813	10.0	47,767
1972	34,734	7,214	17.2	41,948
1973	46,331	3,177	6.4	49,508
1974	46,055	3,027	6.2	49,082
1975	43,197	2,020	4.5	45,217
1976	27,505	1,667	5.7	29,172
1977	18,472	1,155	5.9	19,627
1978	15,320	2,001	11.6	17,321
1979	10,191	5,996	37.0	16,187
1980	12,291	3,129	20.3	15,420
1981	19,522	11,815	37.7	31,337
1982	17,026	5,754	25.2	22,780
1983	14,110	8,735	38.2	22,845

Source: Taken from Jose Graña Miro Quesada, Construcción, paper prepared for IPAE, 1984. Original sources: BANVIP, ENACE, Census of 1981.

The public sector increase, nevertheless, is significant and mostly reflects housing financed by FONAVI and constructed by ENACE. Private firms have participated only as construction contractors to ENACE.

The relationship between ENACE and private contractors is regulated by the Reglamento Unico de Licitaciones. Apart from the cost implications of the bidding and contracting procedures, the Reglamento also affects costs through its provision to compensate contractors for cost increases beyond their control. This is done through the application of a formula ("formula polinomica") which adjusts contractor budgets for inflation in materials, labor and capital. The problem with the formula is that it does not provide incentives for speedy, efficient work; in fact, it tends to reward inefficiency.

At times, ENACE acts as a direct executing agency. One of the advantages of ENACE in this respect is an exemption from procedures for obtaining construction licenses or approvals. Moreover, ENACE is not required to obtain feasibility clearance for water supply from SENAPA or SEDAPAL to begin project execution. This has reportedly caused problems on various projects. The exemptions enjoyed by ENACE are not granted to private sector developers, which places the private sector at an obvious disadvantage. The solution is not to exempt private builders also, but to make ENACE subject to regulations that have been streamlined for all developers.

As part of the effort to promote more private sector participation in low-cost shelter solutions, market studies are required on the supply side. Conventional wisdom suggests that private developers are reluctant to undertake core housing and sites and services projects because the risks are too high and the profit margin is too small. It would be useful to investigate the extent to which this proposition is true given present conditions in Peru. Key factors to examine include access to financing, equipment and machinery capacity of firms, and attitudes toward public institutions and the regulatory framework.

To stimulate private sector participation and investment, it is necessary to establish a clear, easy-to-follow legal and regulatory framework and to create an environment of stability, where the rules of the game are not changed as often and as dramatically as in the past.

2. Rental Housing

Rental housing accommodates about one-third of urban residents in Peru, or around 4.4 million people. Recent studies indicate that the quality of the rental housing stock has been deteriorating substantially because landlords do not invest in improvements.[5] Also, almost no new rental housing has been built in recent years. The existing rent control regulations, dating back to the Rental Law of 1977, are a major cause of these problems. The negative aspects of this Law most often cited, from the standpoint of landlords, are:

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[5]See Strassman, op cit., pp.50-54.

- Excessive constraints on rental charges and increases;
- Inability to define time limits on rental contracts;
- Difficulties in legally evicting tenants.

These factors contribute to the world-wide, familiar cycle of poor or negative financial returns to landlords, lack of investment in maintenance of rental property, physical deterioration of existing housing stock, withdrawal of units from the rental housing suppiy (in some cases with the units left unoccupied rather than rented), and lack of investment in production of new rental housing. Given that housing is a durable product with a useful life measured in decades and financial returns over a long-term period, the inability to raise rental charges to keep up with inflation makes the rental market unprofitable.

Legislation to change rent regulations has been pending for two years, but has not been passed. There is an urgent need for changes that will provide incentives for increasing the supply of rental housing.

C. THE INFORMAL SECTOR

1. Background

There is evidence that informal economic activity--that which occurs outside the legal framework--plays a major role in Peru. According to the Instituto Libertad y Democracia, the informal sector represents 60 percent of the population, between 40 and 50 percent of production, 70 percent of building construction, 85 percent of transportation units, and 47 percent of homes in Lima.[6] A study done for AID indicates that this sector "employs an estimated majority of the labor force, reponds to market mechanisms, engages in production of multiple products and services, and is highly interrelated with formal enterprises".[7]

A tour through the Cono Sur and the Cono Norte areas of Lima is sufficient to provide an understanding of the great impact of informal sector activity in housing. As indicated in Chapter II, the number of housing units being built by the informal sector, in part through self-help (auto-construcción) vastly exceeds the number of units produced by the formal sector. One conservative estimate puts average informal sector production over the last five years at over 50,000 units annually against close to 22,000 for the formal sector.[8] These numbers are a testament to the ability of the informal sector to produce housing that is affordable to the lowest-income sectors of the population.

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[6]Hernando de Soto, President of Instituto Libertad y Democracia, address to the "V Congreso Nacional de Industriales", El Comercio, Lima, December 6, 1984.

[7]Coopers and Lybrand, Private Sector Assessment....(title to be filled in), USAID/Lima, (date to come).

[8]Jose Graña Miro Quesada, op.cit., p.105

The growth of squatter settlements in Lima can be attributed to two closely interrelated issues: a) fragmentation and inconsistency of the legal and regulatory framework and its inadequacy to meet the demands of the majority, and b) the high cost in having access to and living under the formal environment. On the one hand, it appears that the informal sector operates more flexibly and produces goods and services at lower costs by avoiding costly taxes and legal requirements (regarding compensation, benefits, licenses, etc.). On the other hand, informality also incurs costs; for example, less than 15 percent of homes in this sector have secure ownership or title of property. This prevents households from having security in transactions or access to formal credit mechanisms. The formal sector may carry higher costs for operations, but it allows greater access to market channels, credit, management, and technological know-how.

2. Housing Technology

It is evident that for lower-income urban households in Peru, shelter represents their chief instrument of capitalization. They are willing to and do make sacrifices for their homes, as housing investments serve as a hedge against inflation and the house itself becomes a symbol of status. Some observers feel that Peruvians tend to "overinvest" in relation to their housing needs, but this judgment is open to challenge, given the lack of alternative savings or investment opportunities available to lower-income groups.

In his recent study, "Employment and Housing in Lima, Peru," Strassman comments, "Making additions and improvements to housing is an important economic activity in Lima. The vast majority of owner-occupants add rooms, plaster and paint, install better windows and doors, and improve plumbing facilities. During their mean time of ownership of 11 years, they have raised the value of their dwellings by over one-third." Strassman also found that "about 92 percent of improvements and expansions are financed without loans, and 64 percent of changes are made with self-help labor. ...Households below the median income level had carried out three-quarters of their improvements by paying cash for the materials and doing the work themselves."[9]

It should be pointed out that the term "self-help" construction (auto-construccion) does not necessarily mean actual participation of the family in the construction process. In this respect, Strassman says, "Self-help and mutual aid was mainly used in pueblos jovenes and popular urbanizations where it made up 46 percent and 24 percent of housing. These two areas had 83 percent of such housing. They were also the areas with the largest share (68 percent) of housing built by workers hired directly by the family."[10] These data are supported by Banco de Materiales surveys, which have found that the majority (60-70 percent) of borrowers build by hiring a master mason and crew for improvements and additions to the unit.

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[9]Strassman, op.cit., pp.47 and 61.

[10]Ibid., p.35

The construction process in informal settlements has unique characteristics. Interviews with Banco de Materiales staff and the Bank's studies indicate concern about "overbuilding" of homes by borrowers. This issue was the main subject of a tour of BM borrowers' houses carried out for this analysis in Lima.

The Banco de Materiales has two types of loans:

- Construccion inicial: In this case, the Bank's loan is based on the value of a one-story, 50 m^2 unit. A plan and budget for this typical unit is the basis for the definition of the canasta (basket) of materials in the loan.
- Ampliacion: This loan applies to borrowers who already have built something "permanent" that needs to be consolidated or expanded. The Bank calculates the value of an expansion of the unit and lends for the construction of up to 70 m^2.

None of the units visited were consistent with these criteria. Built-up areas ranged from 100 to 200 m^2. Second stories or preparation for a second story were a common feature in all of the homes. According the the Bank's supervisors, this is the case in almost 100 percent of the loans. The borrowers use the Bank's materials as a complement to materials obtained from other sources over a period of time. This evidence, plus interviews with BM officials, indicates that most BM borrowers have higher expectations with respect to their homes than what the Bank assumes. The "overbuilding" of these homes is a response to three factors:

- The perceived financial advantage of investing in housing as a means of maintaining the value of savings;
- The expectation that solid and substantial construction will lower the chance of relocation and increase the possibility of obtaining legal title and services;
- The use of construction techniques that reduce the need for skilled labor and construction time but which do not necessarily economize on construction materials (e.g. a unit in which bricks are laid with long sides together to make a thick, load-bearing wall, as opposed to a framework of reinforced concrete columns and beams filled in with bricks laid end-to-end).

The challenge for the Banco de Materiales is to balance the need for technical assistance to borrowers with the prospective cost of supplying it. It is neither feasible nor desirable to dictate construction techniques and sanction borrowers for violating them. Instead, the BM should seek to provide help to those who desire it, through written and illustrated instructional materials as well as site visits. The use of architecture and engineering students should be considered.

3. Construction Materials

Informal producers and suppliers of construction materials make up a well known industry in Peru. As formal sector operations move further from the affordability levels of the majority, this industry will continue to grow and expand. The range of products offered includes almost all those produced formally, except the ones based on capital-intensive technology like iron and cement.

While an economic depression can bring the formal construction industry to a virtual halt, building materials continue to be in demand in informal settlements. The numbers of trucks, loaded and ready to deliver, that can be found parked along the major routes in Lima that lead to these settlements and the piles of materials accumulated in front yards, rooftops, and patios of these homes are testimony to this fact. This is another reflection of housing construction and improvement by the informal sector as both an act of saving and an act of investment or asset creation.

4. Infrastructure

While residents of squatter settlements can build their homes according to the standards and pace they can afford, they cannot do this for infrastructure. In Lima, SENAPA and SEDAPAL have installed large water spigots for filling tank trucks in central locations in most informal settlements not served by individual house connections. These spigots are run by concessionaires of SENAPA who act as intermediaries between the public utility and the private tank truck operators. The latter, in turn, sell water to households. The cost of water under this semi-monopoly distribution system is quite a bit higher than the subsidized SENAPA or SEDAPAL tariff rates.

Installation of services in an area can have a tremendous effect on housing improvement. According to Strassman, "Given income, those poor with access to a sewer system connection will make three times as many types of improvements as those without. ...With all other characteristics of a house unchanged, access to the public sewerage system will raise dwelling value by 50 percent."[11]

5. Tenure and the Titling Process

The accelerated formation of new urban settlements on invaded land has created a series of problems for the legal and regulatory framework in Peru. In the 1950s, there was no answer in the legal framework for this problem, and the response was, when possible, forceful eradication by the police. It wasn't until 1961, with the enactment of the Ley Organica de Barrios Marginales (Law 13517), that a major breakthrough was achieved. This law established that legalization of settlements through a process of improved site design and upgrading was the road to individual and integral legal titling and secure tenure.

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[11] Ibid., p.55.

In the last 23 years, the technical, legal, and administrative duties associated with the process of legalization passed through the hands of 11 public agencies. As a consequence of this lack of continuity and fragmentation, many efforts have been lost and duplicated, added to the fact that political attitudes and budget allocations have been varied and unstable.

On a national level, according to a 1980 study by Dr. Angel Rivera Marca, the population in Lima's pueblos jovenes was close to 3 million people, a total of approximately 500,000 families that required property titles.[12] In the 20 years since the enactment of Law 13517, titles have been issued to about 14 percent of these families. This means that in 1980 more than 400,000 families still did not have a secure tenure situation. Other studies have come up with slightly different percentages, but all indicate that the proportion of informal houses with secure tenure remains very low.

The titling process is now entirely in the hands of municipalities. The Municipality of Lima seems to be making progress in the agilization of procedures in spite of low financial and personnel resources. Data collected by the Municipality shows that out of 180,000 identified lots in recognized pueblos jovenes, 80,000 have already obtained property titles. An additional 90,000 lots are in different stages of the process that will eventually lead to secure tenure.

A definitional problem has been identified in relation to pueblos jovenes. According to the law, not all informal settlements are pueblos jovenes. An official declaration is necessary that recognizes a particular settlement as such if it meets certain legal requirements. There are many settlement types that have tenure security problems that are not included in pueblo joven statistics because they are called by other names, thus adding to the general confusion in the titling records.

The legalization process has been historically slow and full of contradictory policies and regulations. According to a study presently being carried out by Instituto Libertad y Democracia on ownership legalization procedures and legal adjudication of state lands, the procedure that a pueblo joven group has to go through to obtain legal titling consists of 126 steps, includes the intervention of six different institutions (including the President), and takes from two to seven years to complete. The cost of this operation still remains to be measured. Housing associations or organized groups that undertake this procedure soon grow disillusioned and attempt to acquire ownership and services through social and/or political pressure. The social and economic costs of this phenomenon are indeed very high.

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[12] Angel Rivera Marca, "Aspectos Legales y Juridicos en Pueblos Jovenes," Servicios Basicos Inegrados en Areas Urbanas Marginales del Peru, UNICEF, Primer Seminario Nacional sobre Servicios Basicos Integrados en Areas Urbanas Marginales, Lima, Peru, diciembre de 1980, pp.89-117.

Tenure security is a very important asset for families. It does not solve a family's socio-economic problems, but it provides a solid foundation for upward mobility since it brings several advantages:

- Legal security from eviction;
- Increased value of the property;
- Social status;
- Access to mortgage credit and finance.

Land titling and tenure procedures are one of the areas of public activity where the complexity and lack of coherence of the present legal and regulatory framework can be seen most clearly. Further work is necessary to develop ways in which municipalities can effectively accelerate and simplify this process. In addition, the new measures being taken by the Municipality of Lima (e.g. computerizing land records, streamlining procedures) should be studied to see if they yield useful lessons for other cities.

6. Communal Organizations

Peru has a long history of efforts to promote communal organizations, mostly on the part of the government and linked to the political process. Nowadays, most shelter programs sponsored by the state--like the "Techo Propio" (TEPRO) program of lots without services--require that beneficiaries be organized into housing associations and/or cooperatives in order to be included.

The first communal organizations were formed before 1960 by groups of urban settlers for the purpose of organizing land invasions and defending the invaded land against public efforts at removal.

The land development process through which these invasions occurred was not devoid of planning. According to research by the Instituto Libertad y Democracia,

> "A professional clan of urban planners developed, employed not by the State, but by the underground. These planners stake out unsettled land around Lima and design new settlements. They even install parks and spaces for municipal buildings in the hope that the government will eventually give legal recognition to the more orderly settlements."[13]

The institutionalization and legalization of informal community associations dates back to 1968 with the establishment of ONDEPJOV (Oficina Nacional de Desarrollo de Pueblos Jovenes). "Pueblo joven" (young settlement) was chosen as a non-pejorative official term for squatter settlements. The main purpose

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[13]Claudia A. Rosett, "Peru's Underground Market Economy", essay for the New York Times and Wall Street Journal (no date available), p.4.

of ONDEPJOV was to promote the active participation of pueblo joven residents in the promotion, coordination, and execution of development projects. Since then, there has been a proliferation of "Popular Organizations" (organizaciones populares), "Urban Associations" (asociaciones urbanas), and "Housing Cooperatives" (cooperativas pro-vivienda). However, it is very difficult to obtain reliable data on the scope and effectiveness of these organizations without undertaking a great deal of original data-gathering through surveys and extensive interviews (not possible in the time frame of this study).

Pueblo Joven organizations, Asociaciones Pro-vivienda, and cooperative groups continue to do more than fulfill communal participation and advocacy roles. They also perform essential administrative and executive functions, thus increasing the capabilities of the delivery system. Such functions include collection of data on community group members, preparation of official documents for submission to public agencies, and selection and hiring of contractors to execute works.

Anecdotal evidence suggests that private promoters play an important role in organizing communities for profit. The inner workings of this market are not well known, but the help of the promoter--be he an individual entrepreneur or a representative of a political party--is often the force behind the executive functions of the community organization. Promoters also perform the role of a "tramitador", a facilitator who helps the group navigate through the legal procedures involved in obtaining what it needs from the bureaucracy. One problem faced by community groups is lack of legal status (personeria juridica), which is needed in order to enter into agreements or contracts. Some community organizations have personeria juridica, but others only have "official recognition", a lower status which permits public agencies to work with them but does not give power to sign contracts. Efforts are needed to clarify the process so that community organizations have full access to shelter and upgrading programs.

D. CONCLUSIONS

Some scope exists for reducing shelter costs by reducing physical standards, especially for infrastructure. Supposedly low-cost shelter projects are still being built with such features as excessively wide streets and underground electrical lines. Current infrastructure specifications treat all urban and rural areas as homogenous, with no attempt to differentiate between income levels or different settlement types. There is a need for:

- Feasibility studies on cost reduction ideas which will result in concrete proposals for changes in specifications.
- Changes in norms to legitimize the introduction of progressively increasing levels of services over time.

At best, changes in physical norms could achieve shelter cost reductions of 20 to 25 percent. These potential economies are greatly overshadowed by the burden of financial costs in shelter construction today. A few months' delay in project execution,

which is a normal occurrence, can raise costs by 30 to 50 percent due to inflation and interest charges on borrowed money. There are several aspects to the problem of project delays:

- Administrative bottlenecks in the project review and approval process are a major problem. Delays are caused by the multiplicity of agencies involved at various levels of government and by the excessive documentation required. The entire structure for construction permitting should be overhauled and streamlined. New regulations should obligate public agencies to perform the various stages of the process within specified time limits.
- Project execution is often inefficient. The "formula polinomica", intended to compensate builders of publicly-financed projects for cost increases beyond their control, gives no incentive for speedy work. In many cases the economies of purchasing materials early in the project are not taken advantage of. Another factor contributing to inefficient construction is ENACE's exemption from the formal approvals process. This has resulted in ENACE projects being built without the required assurance of infrastructure from utility agencies. Finally, the Banco de Materiales has found that its clients often use materials inefficiently because of lack of technical knowledge. These problems, and many similar ones, should be the targets of concerted attack. Regulatory reform is needed to provide incentives to builders for rapid, on-time performance and to ensure coordination between agencies. Regarding the Banco Materiales, it is neither feasible nor desirable to dictate construction techniques. Instead, the BM should provide technical assistance to those who desire it, through publications as well as site visits. The use of students for this should be considered.

The prices of steel and cement, materials that weigh heavily in housing construction, have risen more rapidly than inflation or the general construction cost index in the last five years. This suggests that there may be inefficiencies in production of these two materials. It would be useful to explore in more detail the factors affecting their prices, key among them the management policies of the state-owned enterprises which dominate production.

Construction costs vary greatly among Peru's main geographic regions. A project carried out in the Costa costs 50 percent more in the Sierra and 150 percent more in the Selva. The main reasons are transportation costs, lack of skilled workers and managers outside the Costa, the more adverse climate and terrain conditions in the Sierra and Selva, and the unfamiliarity in these regions of some materials and construction processes. To help mitigate these cost differentials, technical and administrative capacity in construction should be developed in the interior through training programs. Also, the use of local materials and construction techniques should be encouraged.

Since 1961, when the government first officially recognized the need to legalize rather than eradicate informal settlements, the responsibility for "regularization" has passed through 11 public agencies. Because of this lack of continuity and fragmentation, the the titling process has been very slow. A recent study showed that as of 1980 only 14 percent of families in Pueblos Jovenes needing legal titles had obtained them. Legalization of informal settlements is now in the hands of municipalities, and at least the Municipality of Lima appears to be speeding up the process. Legalization is essential

for various reasons, not the least of which are the incentive it provides for upgrading investments by households (thus stimulating the construction industry) and the opening of access to formal credit. Efforts to speed up the legalization process, especially in cities other than Lima, must continue.

Rental housing accommodates about one third of urban residents in Peru, or around 4.4 million people. Recent studies indicate that the quality of the rental housing stock has been deteriorating substantially because landlords do not invest in improvements. Also, almost no new rental housing has been built in recent years. The existing rent control regulations are a major cause of these problems. Legislation to change rent regulations has been pending for two years, but has not been passed. There is an urgent need for changes that will provide incentives for increasing the supply of rental housing.

Most shelter programs sponsored by the State require that beneficiaries be organized into housing associations or cooperatives in order to participate. However, many community groups lack--or have trouble obtaining--legal status (personeria juridica), which is needed to enter into agreements or contracts. The law offers conflicting dispositions on eligibility and procedures for obtaining legal status. Efforts are needed to clarify the process so that community organizations have full access to shelter and upgrading programs.

APPENDIX I

SUMMARY OF SHELTER POLICY AGENDA

The chart on the following pages summarizes the shelter policy issues and recommendations that appear in Volume I (Policy Issues) of this Shelter Sector Assessment. The policy issues are ranked by priority into three categories: immediate, medium-term, and long-term.

PERU

SHELTER POLICY AGENDA RECOMMENDATIONS

CATEGORY	IMMEDIATE PRIORITY	MEDIUM-TERM
LIMITING AND FOCUSING PUBLIC SECTOR SHELTER PROGRAMS	**Subsidies** • Before undertaking new public shelter programs, estimate the projected annual subsidy resulting from the proposed financing terms and subject the estimate to discussion within the housing sector and among key economic planning institutions. • Raise interest rates in the housing sector as much as possible consonant with affordability to reduce interest rate subsidies. • Where possible, increase down payments and reduce amortization periods to reduce the interest rate subsidy and generate more funds for immediate reinvestment. • In individual projects, apply differential plot prices in order to cross-subsidize lowest-cost units without damaging the overall financing soundness of the project. • In pricing shelter solutions, reflect the true value of the original investment by 1) valuing land, labor, and materials at their real market costs, and 2) factoring in the value of cost escalation during construction. **Targeting of Public Shelter Sector Programs** • Terminate public sector programs for construction of single-family houses, apartments, or core units. Focus public sector shelter programs on sites and services, infrastructure upgrading in low-income areas, and building materials loans. • The Government should support a large-scale program of lots without services ("lotes tizados") in principal cities. **Infrastructure** • The Government must being immediately to explore ways to reach agreement with external donors on new financing for basic infrastructure, especially water supply. This will require a willingness to raise tariffs to more realistic levels and to improve management in infrastructure institutions. • Devise an investment strategy and plan for the water supply sector, which has been underfunded and which lacks a coherent set of policies and objectives.	**ENACE** • Eliminate ENACE's housing construction functions and fold its contracting and supervision functions into BANVIP and/or delegate them to other institutions involved in projects. • As a prelude to closing ENACE, conduct studies of 1) steps required to finish administering its existing portfolio, 2) potential for selling off its unallocated assets, and 3) best means of writing off its unproductive portfolio. **Reducing Shelter Costs for Affordability** • Conduct feasibility studies which will result in concrete ideas for changing design specifications to lower costs. • Change norms to legitimize the introduction of progressive levels of services over time. • Overhaul and streamline entire structure for construction permitting. Obligate public agencies to perform the various stages of the process within specified time limits. • Reform regulations governing control of public construction projects to provide incentives to builders for rapid, on-time performance. • Develop technical and administrative capacity in construction in the Sierra and Selva through training programs. • Encourage use of local materials and construction techniques in the interior regions of Peru.

PERU

SHELTER POLICY AGENDA RECOMMENDATIONS
(CONTINUED)

CATEGORY	IMMEDIATE PRIORITY	MEDIUM-TERM
FACILITATING INCREASED PRIVATE SECTOR EFFORTS IN SHELTER DELIVERY	<u>Mutuales (Savings and Loans)</u> • Legalize the Mutuales' de facto entry into non-housing credit markets. • Pass new legislation allowing mutuales to institute management reforms. <u>Reducing Public Sector Role</u> • Eliminate high-cost public housing projects and phase out subsidies for public shelter programs to place private sector on more competitive footing in housing market.	<u>Mutuales (Savings and Loans)</u> • Open the savings and loan system to savings in dollars and loosen interest rate controls to help it compete in the financial market. • Prepare a new strategic plan for the system which takes into account the realities of the market for capturing funds and placing loans. <u>Tenure Regularization</u> • Continue vigorous efforts to legalize established informal settlements in Lima and institute effective legalization programs in other cities to promote private investment in housing construction and finance. <u>Rent Control</u> • Reform rental housing legislation to reduce negative impact of rent control by providing incentives for increasing the supply of rental housing. <u>Reforming Legal/Administrative Structure</u> • Streamline project review and approval process to make it easier for private developers and builders to function as providers of shelter. • Review laws and regulations governing subdivisions, building codes, and land use to identify and eliminate ambiguity, overlaps, and contradictions hampering private initiative.

PERU

SHELTER POLICY AGENDA RECOMMENDATIONS
(CONTINUED)

CATEGORY	IMMEDIATE PRIORITY	MEDIUM-TERM	LONG-TERM
IMPROVING THE EFFICIENCY OF FINANCIAL INTERMEDIATION IN SHELTER	<u>Maintenance of Value</u> • Implement some type of indexing system in loans of key shelter programs, including BANVIP, FONAVI, and the Banco de Materiales. • Devise a formula for raising the income base from which FONAVI contributions are calculated so as to keep up with, at least, the wage and salary index. • Raise real interest rates on FONAVI loans to match the prevailing rate for Mutuales.	<u>Maintenance of Value</u> • Extend indexing systems to all operations (loans and deposits) of housing finance institutions. The wage and salary index is the most frequently-mentioned basis for an indexing system under current high-inflation conditions. <u>Banco de la Vivienda</u> • Substantially improve BANVIP's management control over FONAVI, including better control over contributions and implementation of a system to maintain the value of the fund. • Restore BANVIP's role as setter of financial policy in the public shelter sector. BANVIP should have capacity to allocate public shelter resources among various programs and responsibility for maintaining maximum financial soundness in housing sector operations. • Improve cooperation between BANVIP and the public utility companies. • Involve BANVIP directly with selected municipalities. At the outset the municipality's role may be limited to implementation (as is the case with the utilities now). <u>FONAVI</u> • Reform FONAVI's financial regime (interest rate structure) to allow it to obtain a rate of return sufficient to borrow from external sources and mix with its own funds, as permitted by its enabling laws. <u>Banco de Materiales</u> • Improve internal financial management and controls, focusing on limiting operating costs and achieving efficiency in financial operations. • Reach greater numbers of lower-income families with "Type C" loans. • Provide technical assistance to borrowers for more efficient use of materials. <u>Banco Central Hipotecario</u> • Permit BCH to capture savings in dollars and loosen interest rate controls to help restore its competitiveness. • Improve technical quality of management and provide flexibility to respond to market conditions. • Revise indexing system to maintain affordability of loans and avoid delinquencies.	<u>FONAVI</u> • Explore feasibility of converting FONAVI into a real financial fund with increased contributions from employees and obligation to pay a rate of return to contributors. The objective would be to increase the volume of resources available to FONAVI. <u>BANVIP</u> • Phase out direct lending and move towards operating strictly as a second-tier financial organization. <u>Banco de Materiales</u> • Study potential for turning BM into a true financial institution by enabling it to capture savings and making it accountable for its own financial viability.

SHELTER POLICY AGENDA RECOMMENDATIONS
(CONTINUED)

CATEGORY	MEDIUM-TERM
ESTABLISHING AN ONGOING PUBLIC-PRIVATE SHELTER POLICY FORMULATION AND ANALYSIS CAPABILITY	**Housing Policy Group and Technical Secretariat** • Consider creating a high-level Housing Policy Group to formulate shelter policy. Group would be independent and consist of high-ranking representatives of government bodies and private groups. Group's decisions would be binding. • Support Housing Policy Group with small, highly qualified Technical Secretariat composed of economists, financial analysts, legal experts, etc. Desirable for Secretariat to report directly to Policy Group. **Housing Plan** • Focus Housing Policy Group on producing short/medium term National Housing Plan emphasizing creation of appropriate framework for public and private shelter activities. Main components of Plan would be realistic financial resource estimates and guidelines for effective operation of financial intermediaries; clear statement of roles of shelter institutions; agenda of fiscal and monetary policies to support shelter; investment program for public sector shelter actions; investment program for complementary infrastructure; and additional measures addressing construction productivity, building materials, infrastructure standards, and streamlining public sector implementation. **Alternative Structure** • If Housing Policy Group/Secretariat not feasible, consider establishing housing policy analysis units in a government agency and in a private sector organization. Bring two together in seminars to discuss issues and prepare joint resolutions or recommendations. Examine possibility of structuring public-private commissions to recommend policy changes and program initiatives. **Ministry of Housing** • Conduct study to recommend measures to reduce duplication of effort between Ministry and other institutions and to rationalize the Ministry's role and internal operations.

APPENDIX II

DATA AND ASSUMPTIONS USED FOR HOUSING NEEDS AND AFFORDABILITY ANALYSIS

A. HOUSING NEEDS

The estimates of housing needs are based on two main types of data: 1) demographic projections and 2) characteristics of the existing housing stock and assumptions about the 20-year housing program.

The population projections used in this analysis come from the Centro Peruano de Investigacion Aplicada[1] and appear in Table II.1. The projections assume a gradually declining national population growth rate that drops to below two percent per year by the year 2000. Urban population growth is projected to continue at a substantially higher rate than overall population growth. The growth rate of the rural population, already extremely low, is expected to dwindle almost to zero over the next 20 years. The share of national population in urban areas, currently about 67 percent, is projected to grow to over 75 percent by 2005. Other urban areas, which until now have been growing slower than Metropolitan Lima, will henceforth grow faster than the capital. Thus over the next 20 years Lima-Callao is expected to increase its share of total population only slightly, from 27.5 percent to 30 percent, while the population share of other urban areas will jump from 39.6 percent to 46.7 percent.

Our housing needs analysis also assumes a gradual decline in average household size in urban areas, consistent with a projected narrowing of the age pyramid for Peru. While available data refers to persons per unit, not per household, we have used the former as a rough proxy. Our reckoning is that urban occupancy rates should drop from around 5.5 currently to about 5.1 by 2005. The rural occupancy rate of 4.6 is assumed to remain constant over the projection period.

To estimate the size of the base year (1985) housing stock, we applied the above figures for average persons per household to the base year population (see Table II.1). This yielded a 1985 housing stock of about 3.8 million units, divided between approximately one million in Lima-Callao and 1.4 million each in other urban and rural areas.

The housing needs analysis requires that the existing housing stock be broken down into permanent, upgradable, and non-upgradable units. Because of the lack of data, this was done in a very rough way. The definitions of these categories rests on a combination of structural characteristics and service provision levels for housing units. For example, a dwelling may be constructed of permanent materials but lack adequate water or sanitation, making it fall into the "upgradable" category. We used the 1981 Census figures on housing quality and services (Table II.2) as our point of departure. The proportion of non-upgradable units was based on the share of 1981 units

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[1]Delicia Ferrando, "Supuestos a Considerarse para la Proyeccion Demografica del Peru para el Ano 2050", in Centro Peruano de Investigacion Aplicada, La Poblacion del Peru en el Ano 2050, Lima, 1984, pp.13-41.

constructed of temporary or improvised materials (quincha, reed mats, and others). Updating the 1981 percentages slightly to reflect a decline in the quality of the housing stock, we assumed the following proportions of non-upgradable units: 6 percent for Lima, eight percent for other urban areas, and 13 percent for rural areas. The share of permanent units was based on the extent of permanent materials or the coverage of water supply and sanitation, whichever is lower for each geographical area. For Lima-Callao, we assumed that 55 percent of dwellings are permanent, corresponding to what we estimate is the coverage of sewer service in 1985. For other urban areas and rural areas, we assumed 30 percent and 3 percent permanent units respectively, corresponding to the extent of permanent materials in 1981. The remaining proportion of units in each area was classified as upgradable, as follows: 39 percent for Lima, 62 percent for other urban areas, and 84 percent for rural areas.

The remaining assumptions have to do with rates of housing stock replacement and upgrading. We have used 2 percent per year as the rate of replacement of the permanent housing stock. We have also assumed that, between 1986 and 2005, 100 percent of base year non-upgradable units are replaced and 100 percent of base year upgradable units are upgraded. These two programs are spread out evenly over the 20-year period (at a rate of 5 percent per year). Finally, we have defined the reduction of overcrowding in the 1985 housing stock as reducing occupancy rates to "more adequate" levels, which we have assumed to be 5.0 persons per dwelling in urban areas (down from 5.5) and 4.2 p.p.d. in rural areas (down from 4.6). The additional housing units needed to achieve these levels for 1985 households are assumed to be part of the 1986-2005 housing program.

It should be noted that our estimates do not include upgrading of units other than those in the base year housing stock. This means that upgrading or progressive development of future units do not appear in the housing needs forecasts.

B. HOUSEHOLD INCOME AND HOUSING EXPENDITURE

To obtain estimates of average household incomes for the three geographical areas (Lima-Callao, other urban, and rural) we took INE's 1983 estimate of disposable national income (S/22,720,865 million) and projected it forward to 1985 (the base year for this analysis) at 1984 prices. Assuming 2 percent real GDP growth in 1984 and 1985, plus inflation of 110 percent for 1984, this yielded a figure of S/49,641,455 million. We then allocated this income to the three geographic areas as follows: 57 percent for Lima-Callao, based on INE data for 1981 on GDP by departments[2], 15 percent for rural areas, based on very rough estimates cited by Richard Webb in a recent article[3], and the remaining 28 percent for other urban areas. Finally, the three income shares were divided by the corresponding 1985 estimates of the number of households in each area to obtain average annual household incomes. These were: S/28,700,000 for the Lima-Callao Metropolitan Area,

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[2]World Bank, Peru Country Economic Memorandum, Report No. 5267-PE, November 6, 1984, Table 2.6, p.35.

[3]Richard Webb, "Economia Urbana", in Plaza Mayor, No. 14, May-June 1984, pp.36-38.

S/9,800,000 for other urban areas, and S/5,300,000 for rural areas (all for 1985 in 1984 Soles). Note that these are average, not median incomes. Medians are considerably lower because income distributions are skewed.

The Housing Needs Assessment Model uses the above average income figures to project future mean household incomes for each quintile of the income distribution. The income projections are based on expected national GDP growth for the urban and rural sectors. For this analysis we assumed that real GDP will grow at 2 percent per year between 1986 and 1990, 4 percent from 1991 to 1995, and 5 percent thereafter. In addition, we assumed that consumer prices and construction prices will escalate at the same rate, so that over the next 20 years capacity to pay for housing will be neither eroded or improved by differential inflation rates[4].

Income distribution data for this analysis were taken from a 1972 study by Carlos Amat y Leon[5]. More recent income distribution figures were available for urban areas only from a 1977-78 household survey (Encuesta Nacional de Hogares de Propositos Multiples), but we decided to use the earlier figures. The reason for this was that the 1977-78 income distributions were considerably less skewed than the 1972 distributions. While income distribution in Peru may actually have improved during the 1970s, we felt it had probably worsened again in the 1980s because of the recent economic crisis. It seemed reasonable, therefore, to rely on the 1972 data. Appendix Table A.34 presents the shares of household income by quintile used in this analysis.

Having no reliable recent data on the fraction of income spent on housing in Peru, we assumed that households would be willing to spend the following maximum percentages of income on housing capital:

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[4]While key building materials prices have escalated faster than the CPI in recent years, the construction wage index has risen slower. The net effect is that CAPECO's general index of building costs has risen at roughly the same rhythm as the CPI over the last four years.

[5]Carlos Amat y Leon, Distribucion del Ingreso Familiar en el Peru, Universidad del Pacifico, Lima, 1981 (Second Edition), p.38.

PERCENTAGE OF INCOME SPENT ON HOUSING CAPITAL

Income Distribution Quintiles		Lima-Callao	Other Urban	Rural
lowest	1	20	20	10
	2	25	25	15
	3	30	30	20
	4	30	30	25
highest	5	30	30	30

C. ALLOCATION OF UNITS TO HOUSEHOLDS FOR INVESTMENT ESTIMATION

The Housing Needs Assessment Model employs a number of assumptions to allocate units to households as a basis for estimating housing investment costs. The first is that new households and households occupying units scheduled for replacement due to obsolescence are distributed evenly among income quintiles. Second, the Model identifies a "target group" of households unable to afford a minimum basic house with services (more or less the minimum house that the private sector could supply). These households could be considered 1) candidates for a range of publicly-supported housing programs and/or 2) potential beneficiaries of new housing policies to increase private housing affordability. Units in the base year housing stock that are overcrowded or not built of permanent materials are assumed to be evenly distributed among the income quintiles making up the "target group". Third, the Model allocates the lower-cost solutions (e.g. the serviced lot, the upgrading loan, etc.) evenly among income quintiles in the target group. Thus some urban households able to afford a serviced lot are assigned an upgrade. Also, some households unable to afford any solution are assigned an upgrade or a serviced lot.

APPENDIX TABLES

TABLE A.1

PERU: GROSS DOMESTIC PRODUCT BY SECTOR
(Millions of Current Soles)

	1979	1980	1981	1982	1983	% Change
Agriculture	302,069	443,172	822,837	1,173,972	2,215,285	633.37
Fishing	24,540	31,535	48,987	76,252	103,276	320.85
Mining	483,103	655,430	934,263	1,484,802	3,179,487	558.14
Manufacturing	951,547	1,567,315	2,339,371	3,703,607	7,323,863	669.68
Construction	83,581	159,605	307,246	566,313	887,524	961.87
Government	227,218	475,483	916,797	1,547,422	3,086,005	1,258.17
Others	1,326,218	2,266,067	4,126,054	6,765,413	11,922,635	799.00
TOTAL GDP	3,398,276	5,598,607	9,495,555	15,317,781	28,718,075	745.0

Source: Instituto Nacional de Estadistica

TABLE A.2

PERU: GROSS DOMESTIC PRODUCT BY SECTOR
(Millions of Soles in 1973 Prices)

	1979	1980	1981	1982	1983	Percentage 1979	1980	1981	1982	1983
Agriculture	55,575	52,339	58,643	60,330	54,524	12	11	12	12	12
Fishing	4,640	4,538	4,309	3,960	2,554	1	1	1	1	1
Mining	39,324	39,477	38,245	40,750	37,612	8	8	8	8	8
Manufacturing	114,697	121,275	121,031	118,010	99,128	25	25	24	23	22
Construction	14,170	16,833	18,693	19,123	15,107	3	3	4	4	3
Government	50,150	52,449	54,527	55,984	55,984	11	11	11	11	13
Others	187,383	196,937	207,215	206,294	184,737	40	41	40	41	41
TOTAL	465,939	483,848	502,663	504,451	449,646	100	100	100	100	100
GROWTH 1979=100	100.0	103.8	107.9	108.3	96.5					
ANNUAL GROWTH	4.1	3.8	3.9	0.4	<12.2>					

Source: Instituto Nacional de Estadistica

TABLE A.3

PERU: CENTRAL GOVERNMENT FINANCES
(Billions of 1983 Soles)

	1981	%	1982	%	1983	%	% Change
INCOME							
Income Tax	1,052	20	1,014	19	649	17	<38>
Patrimony Tax	212	4	203	4	135	4	<36>
Import Tax	1,115	21	1,003	19	714	19	<36>
Export Tax	403	8	251	5	98	3	<76>
Production and Consumption Tax	2,184	41	2,470	47	1,933	52	<11>
Other Taxes	173	3	175	3	118	3	<89>
Non-Fiscal Revenues	150	3	148	3	85	2	<43>
TOTAL INCOME	5,289	100	5,264	100	3,732	100	<29>
EXPENDITURE							
Remunerations	1,552	29	1,539	29	1,365	37	<12>
Goods & Services	226	4	213	4	238	6	5
Transfers	823	16	598	11	706	19	<14>
Defense	1,295	25	1,660	32	1,374	37	6
SUBTOTAL CURRENT EXPENDITURES	3,896	74	4,010	76	3,683	99	< 5>
Capital Expenditures	1,507	28	1,256	24	989	27	<34>
Debt Service	2,490	47	2,405	46	2,954	78	19
TOTAL EXPENDITURES	7,893	149	7,671	146	7,626	204	< 3>
DEFICIT TO FINANCE	2,604	49	2,407	46	3,894	104	49

Source: BCR Y INE

TABLE A.4

PERU: BALANCE OF PAYMENTS: 1979-83
(Millions of US Dollars)

TRANSACTIONS	BALANCE OF PAYMENTS 1979	1980	1981	1982	1983P
I. GOODS AND SERVICES					
1. EXPORTS FOB	3,676	3,916	3,249	3,293	3,015
2. IMPORTS FOB	-1,954	-3,090	-3-802	-3,721	-2,722
a. TRADE BALANCE (1+2)	1,722	026	-553	-428	293
3. FINANCIAL SERVICES	-931	-909	-1,091	-1,034	-1,108
INCOME	58	202	204	109	116
EXPENDITURES	-989	-1,111	-1-223	-1,143	-1224
4. NON-FINANCIAL SERVICES	10	-165	-317	-314	-254
b. BALANCE OF SERVICES (3+4)	-921	-1,074	-1,336	-1,348	-1,362
c. TRANSFER PAYMENTS	152	147	161	167	219
d. BALANCE OF CURRENT ACCOUNT (A+B+C)	953	-101	-1,728	-1,609	-850
II. CAPITAL					
5. PUBLIC CAPITAL	617	371	388	995	1,409
-- OFFICIAL LOANS	643	377	389	995	1,409
OUTLAYS	1,084	1,208	1,620	2,043[a]	2,554[a]
AMORTIZATION	-441	-831	-1,231	-1,048	-1,145
-- OTHER LOANS	-26	-6	-1	--	--
6. PRIVATE CAPITAL	39	91	260	205	-47
-- NET DIRECT INVESTMENT	71	27	125	48	38
-- PRIVATE LOANS	-32	64	135	157	-85
e. LONG-TERM CAPITAL (5+6)	656	462	648	1,200	1,362
f. BASIC NET BALANCE (D+E)	1,609	361	-1,080	-409	512
g. SHORT-TERM CAPITAL[1]	-30	361	576	533	-552
III. BALANCE OF PAYMENTS	1,579	-722	-504	124	-40

NOTE: FIGURES REVISED BY CENTRAL BANK.
a/ INCLUDES REFINANCING OF PRINCIPAL AND INTEREST.
1/ INCLUDES D.E.G. ALLOCATION/ERRORS AND OMISSIONS.
SOURCE: BANCO CENTRAL DE RESERVA DEL PERU.
P=PROVISIONAL

TABLE A.5

PERU: BALANCE OF PAYMENTS: 1979-83
(Exports = 100)

TRANSACTIONS	BALANCE OF PAYMENTS (%)				
	1979	1980	1981	1982	1983
I. GOODS AND SERVICES					
1. EXPORTS FOB	100	100	100	100	100
2. IMPORTS FOB	< 53>	< 79>	<117>	<113>	< 90>
a. TRADE BALANCE (1+2)	47	21	< 17>	< 13>	10
3. FINANCIAL SERVICES	< 25>	< 23>	< 31>	< 31>	< 37>
INCOME	2	5	6	3	4
EXPENDITURES	< 27>	< 28>	< 38>	< 34>	< 41>
4. NON-FINANCIAL SERVICES	—	< 4>	< 10>	< 10>	< 8>
b. BALANCE OF SERVICES (3+4)	< 25>	< 27>	< 41>	< 41>	< 45>
c. TRANSFER PAYMENTS	4	4	5	5	7
d. BALANCE OF CURRENT ACCOUNT (A+B+C)	26	< 3>	< 53>	< 49>	< 28>
II. CAPITAL					
5. PUBLIC CAPITAL	17	9	12	30	47
-- OFFICIAL LOANS	17	9	12	30	47
OUTLAYS	29	30	50	62	85
AMORTIZATION	< 12>	< 21>	< 38>	< 32>	< 38>
-- OTHER LOANS	--	--	--	--	--
6. PRIVATE CAPITAL	1	2	8	6	< 2>
-- NET DIRECT INVESTMENT	2	--	4	1	1
-- PRIVATE LOANS	< 1>	2	4	5	< 3>
e. LONG-TERM CAPITAL (5+6)	18	12	20	36	45
f. BASIC NET BALANCE (D+E)	44	9	< 33>	< 12>	< 17>
g. SHORT-TERM CAPITAL[1]	< 1>	9	18	16	< 18>
III. BALANCE OF PAYMENTS	43	18	< 15>	4	< 1>

Source: BCR

TABLE A.6

EXCHANGE RATE SOL-DOLLAR

	Soles x US$	% Change (1)	% Change Price Index (2)	(1)/(2)
12/31/79	249.5	---	---	---
12/31/80	340.8	36.6	60.8	0.60
12/31/81	505.6	48.4	72.7	0.67
12/31/82	987.2	95.3	72.9	1.31
12/31/83	2,265.5	129.5	125.1	1.04
09/30/84	4,057.0	79.1	74.3	1.06

Source: INE

TABLE A.7

PERU: CONSUMPTION/INVESTMENT RELATIONSHIP
(Millions of 1973 Soles)

	1979	%	1980	%	1981	%	1982	%	1983	%
FINAL CONSUMPTION	382,054	88	411,231	86	427,068	84	428,659	86	385,977	89
PUBLIC CAPITAL FORMATION	18,834	5	24,492	5	28,049	6	29,998	6	30,147	7
PRIVATE CAPITAL FORMATION	35,026	8	42,999	9	49,794	10	46,055	9	23,814	5
STOCK VARIATION	< 3,833>	<1>	2,435	---	3,955	--	<6,595>	<1>	<5,559>	<1>
TOTAL	432,081	100	481,157	100	508,866	100	498,117	100	434,379	100

Source: BCR y INE

TABLE A.8

EVOLUTION OF SAVINGS
(Billions of Current Soles)

	(1) MONEY	(2) QUASI-MONEY LOCAL CURRENCY	(3) QUASI-MONEY FOREIGN CURRENCY	RELATIONS 2/1	3/1	3/2	INDEXES 1	2	3
				%	%	%			
1979	316.3	172.8	151.9	55	48	88	100	100	100
1980	541.9	314.9	387.9	58	71	123	171	182	255
1981	804.0	726.2	666.4	90	83	92	254	420	439
1982	1,091.7	1,250.1	1,484.8	115	136	119	345	723	977
1983	2,084.3	2,133.7	3,314.7	102	159	155	659	1,235	2,182

Source: BCR

TABLE A.9

MONETARY MARKET
(Billions of Current Soles)

YEAR	(1) GDP	(2) MONEY	(3) QUASI MONEY	(4) TOTAL 2 + 3	2/1	3/1	3/2	3/4	b*	CPI	b/CPI
					%	%	%	%			
1979	3,398.3	316.3	324.7	641.0	9	10	103	51	100	100	100
1980	5,598.6	541.9	701.9	1,243.8	10	13	130	56	193	160.8	120
1981	9,495.6	804.0	1,392.6	2,196.6	9	15	173	63	343	277.7	124
1982	15,317.8	1,091.7	2,734.9	3,826.6	7	18	251	71	597	480.1	124
1983	28,718.0	2,084.3	5,448.4	7,532.7	7	19	261	72	1,175	1,080.7	109

*b=Total Money Market=1979=100

Source: BCR

TABLE A.10

LIQUIDITY (AVAILABLE FUNDS)
OF FINANCIAL INTERMEDIARIES
(Millions of Current Soles)

	31 December 1981	%	31 December 1982	%	31 December 1983	%
Banco de la Nación	305,498	23.3	269,235	14.2	1,915,607	32.1
Banca Estatal de Fomento	48,908	3.8	107,653	5.7	330,837	5.5
Banco Central Hipotecario	128,538	9.8	54,623	2.9	87,602	1.5
Commercial and Savings Banks	742,400	56.6	1,368,076	72.2	3,424,511	57.4
Financial Enterprises	20,223	1.6	32,122	1.7	102,097	1.7
COFIDE	8,245	0.6	11,747	0.6	30,650	0.5
Housing Mutuals	56,867	4.3	50,724	2.7	78,244	1.3
TOTAL	1,310,679	100.0	1,894,180	100.0	5,969,548	100.0
Conatant Soles (1979=100)	386,631		323,073		452,379	

Source: Superintendencia de Banca y Seguros

TABLE A.11

PLACEMENTS OF FINANCIAL INTERMEDIARIES
(Millions of Current Soles)

	31 December 1981	%	31 December 1982	%	31 December 1983	%
Banco de la Nación	779,537	28.5	793,707	16.8	2,504,527	23.0
Banca Estatal de Fomento	535,632	19.6	1,215,446	25.7	2,679,779	24.7
Banco Central Hipotecario	64,193	2.3	183,648	3.9	319,660	2.9
Commercial and Savings Banks	866,704	31.7	1,552,886	32.9	3,570,409	32.9
Financial Enterprises	158,373	5.8	293,412	6.2	400,426	3.7
COFIDE	255,847	9.3	492,876	10.5	1,126,178	10.4
Housing Mutuals	75,537	2.8	184,267	4.0	257,373	2.4
TOTAL	2,735,823	100.0	4,716,242	100.0	10,858,352	100.0
Constant Soles (1979=100)	807,027		804,408		822,858	

Source: Superintendencia de Banca y Seguros

TABLE A.12

DEPOSITS AND LIABILITIES
OF FINANCIAL INTERMEDIARIES
(Millions of Current Soles)

	31 December 1981	%	31 December 1982	%	31 December 1983	%
Banco de la Nación	848,558	29.2	705,605	16.3	2,870,036	28.9
Banco Estatal de Fomento	122,103	4.2	210,633	4.9	502,344	5.1
Banco Central Hipotecario	225,482	7.8	302,730	7.0	385,105	3.9
Commercial and Savings Banks	1,424,169	48.9	2,621,747	60.6	5,397,686	54.4
Financial Enterprises	162,642	5.6	266,354	6.2	408,817	4.1
COFIDE	27,495	0.9	47,235	1.1	54,116	0.5
Housing Mutuals	100,139	3.4	170,963	3.9	306,459	3.1
TOTAL	2,910,588	100.0	4,325,267	100.0	9,924,563	100.0
Constant Soles (1979=100)	858,580		737,722		752,094	

Source: Superintendencia de Banca y Seguros

TABLE A.13

CAPITAL AND RESERVES
OF FINANCIAL INTERMEDIARIES
(Millions of Current Soles)

	31 December 1981	%	31 December 1982	%	31 December 1983	%
Banco de la Nación	32,048	6.2	35,947	4.2	125,615	8.0
Banca Estatal de Fomento	257,272	49.7	420,460	49.6	645,224	41.2
Banco Central Hipotecario	4,964	1.0	9,827	1.2	25,993	1.6
Commercial and Savings Banks	113,019	21.8	207,755	24.5	460,398	29.4
Financial Enterprises	14,460	2.8	26,283	3.1	60,837	3.9
COFIDE	90,765	17.5	137,678	16.2	225,360	14.4
Housing Mutuals	5,042	1.0	9,975	1.2	23,123	1.5
TOTAL	517,570	100.0	847,925	100.0	1,566,550	100.0
Constant Soles (1979=100)	152,675		144,623		118,715	

Source: Superintendencia de Banca y Seguros

TABLE A.14

PROFITABILITY OF FINANCIAL INTERMEDIARIES
(Percentages)

	31 December 1981	31 December 1982	31 December 1983
Banco de la Nación	63.9	84.5	50.3
Banca Estatal de Fomento	9.9	2.1	<5.4>
Banco Central Hipotecario	49.9	88.1	18.2
Commercial and Savings Banks	24.0	18.5	22.5
Financial Enterprises	27.5	12.0	16.4
COFIDE	6.2	7.0	3.4
Housing Mutuals	36.8	39.0	<26.3>
AVERAGE	16.4	13.2	9.5

TABLE A.15

REAL WAGE INDEX IN METROPOLITAN LIMA
(Base: DEC. 1973=100)

Years-Months	General	Construction Sector
1977 (December)	72.2	83.7
1978 (December)	63.8	69.9
1979 (December)	67.3	81.6
1980 (December)	76.1	82.8
1981 (December)	72.3	89.0
1982 (December)	72.3	96.9
1983		
February	67.4	85.3
May	62.0	72.4
August	57.1	74.2
November*	58.7	68.8

*) Preliminary

Source: Ministerio de Trabajo y Promoción Social.

TABLE A.16

MUTUAL SAVINGS AND LOAN SYSTEM:
DISTRIBUTION OF BRANCHES IN THE COUNTRY

MUTUALS	FOUNDATION DATE	MAIN	LIMA PRO-VINCE	CALLAO PROVINCE	OTHER PROVINCES	TOTAL BRANCHES	TOTAL OFFICES
Perú	12.09.58	1	21	1	1	23	24
El Pueblo	12.01.61	1	4	--	--	4	5
Del Puerto	21.04.62	1	6	3	4	13	14
Santa Rosa	14.05.62	1	6	--	--	6	7
Asincoop	27.05.64	1	5	--	--	5	6
Naval	13.04.65	1	--	--	--	--	1
Metropolitana	28.08.62	1	5	1	--	6	7
SUBTOTAL		7	47	5	5	57	64
REST OF THE COUNTRY							
Piura	16.08.61	1	--	--	5	5	6
Arequipa	15.09.62	1	--	--	11	11	12
Panamericana	09.11.61	1	--	--	4	4	5
Tacna	26.06.62	1	--	--	2	2	3
Cuzco	02.01.65	1	--	--	1*	1*	2
Ica	05.02.63	1	--	--	3	3	4
Loreto	09.09.63	1	--	--	1*	1*	2
Chiclayo	02.01.65	1	--	--	2	2	3
Junín	19.09.64	1	--	--	5	5	6
SUBTOTAL		9	--	--	34	34	43
TOTAL		16	47	5	39	91	107

Source: Superintendencia de Banca y Seguros

TABLE A.17

MUTUAL SYSTEM: CONSOLIDATED BALANCES
(Millions of Current Soles)

	1981	%	1982	%	1983	%	% Change
AVERAGE ASSETS							
Available	39,194	35	53,795	25	64,484	18	64.5
Investments	3,240	3	3,273	2	17,491	5	439.8
Housing loans	18,051	16	34,582	16	67,944	19	276.4
Special loans	39,028	34	95,319	45	152,875	42	291.7
Unsold projects	632	--	2,459	1	8,200	2	1,197.5
Fixed assets	6,385	6	11,073	5	24,905	7	290.0
Uncollected interest	1,811	2	4,850	2	13,787	4	661.3
Other Assets	4,319	4	6,645	3	12,326	3	185.4
TOTAL ASSETS	112,660	100	211,996	100	362,012	100	221.3
AVERAGE LIABILITIES							
Savings deposits	58,865	52	107,985	51	187,096	52	217.8
Fixed term deposits	17,128	15	27,566	13	51,615	14	201.3
Banvip Credits	4,431	4	9,994	5	18,048	5	307.3
Fonavi Credits	566	1	4,985	2	19,805	6	3,399.0
Other Liabilities	24,450	22	47,401	22	59,101	16	141.7
Reserves	2,280	2	4,104	2	11,314	3	396.2
SUBTOTAL	107,720	96	202,035	95	346,979	96	222.1
Profit and Reserves	4,940	4	9,961	5	15,033	4	204.3
TOTAL LIABILITIES	112,660	100	211,996	100	362,012	100	221.3
FINANCIAL RESULTS							
Total income	42,055	100	77,431	100	125,544	100	198.5
Interest earned	27,936	90	69,851	90	107,828	86	184.2
Interest paid	<35,325>	<84>	<62,085>	<80>	<103,257>	<83>	192.3
Financial result	2,611	6	7,766	10	4,571	3	75.0
Operating costs	<4,442>	<11>	<9,669>	<13>	<24,129>	<19>	443.2
Commissions and others	4,119	10	7,580	10	17,716	14	330.1
Other expenditures	<434>	<1>	<1,782>	<2>	<4,241>	<3>	872.2
RESULTS	1,854	4	3,895	5	<6,083>	<5>	228.1

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.18

MUTUAL SYSTEM: CONSOLIDATED BALANCES
(Millions of Constant 1979 Soles)

	1981	%	1982	%	1983	%	% CHANGE
AVERAGE ASSETS							
Available	14,038	35	11,715	26	6,651	18	<52.6>
Investments	1,160	3	712	2	1,804	5	55.5
Housing loans	6,465	16	7,531	16	7,008	19	8.4
Special loans	13,979	34	20,757	45	15,768	42	12.8
Unsold projects	226	-	547	1	846	2	274.3
Fixed assets	2,287	6	2,412	5	2,569	7	12.3
Uncollected interest	649	2	1,056	2	1,422	4	119.1
Other assets	1,547	4	1,436	3	1,272	3	<17.8>
TOTAL ASSETS	40,351	100	46,166	100	37,340	100	<7.5>
AVERAGE LIABILITIES							
Savings deposits	21,083	52	23,516	51	19,299	52	<8.5>
Fixed term depoaits	6,135	15	6,003	13	5,324	14	<13.2>
Banvip credits	1,587	4	2,176	5	1,862	5	12.3
Fonavi credits	203	1	1,086	2	2,042	6	905.9
Other liabilities	8,757	22	10,214	22	6,095	16	<30.4>
Reserves	817	2	894	2	1,167	3	42.8
SUB TOTAL	38,582	96	43,889	95	35,789	96	<7.2>
Profit and reserves	1,769	4	2,277	5	1,551	4	<12.3>
TOTAL LIABILITIES	40,351	100	46,166	100	37,340	100	<7.5>
FINANCIAL RESULTS							
Total income	15,043	100	16,682	100	12,949	100	<14.0>
Interest earned	13,587	90	15,211	90	11,122	86	<18.1>
Interest paid	<12,652>	<84>	<13,520>	<80>	<10,650>	<83>	<15.8>
Financial result	935	6	1,697	10	472	3	<49.5>
Operating costs	<1,591>	<11>	<2,105>	<13>	<2,488>	<19>	56.4
Commissions and others	1,476	10	1,651	10	1,827	14	23.8
Other expenditures	<155>	<1>	<388>	<2>	<438>	<3>	182.6
RESULTS	665	4	849	5	<627>	<5>	<5.7>

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.19

MUTUAL SYSTEM: FINANCIAL PERFORMANCE INDICATORS
(Millions of Constant 1979 Soles)

	1981	1982	1983
1. Average Productive Assets(APA)/Average Total Assets(ATA)			
a- ATA	40,351	46,166	37,340
b- APA	35,642	40,715	31,231
b/a	0.883	0.882	0.836
2. Uncollected Interest/Portfolio			
a- Portfolio	20,444	28,288	22,776
b- Uncollected Interest	649	1,056	1,422
% b/a	3.2	3.7	6.2
3. Average Productive Assets(APA)/Average Deposits(AD)			
a- AD	29,008	32,781	28,527
b- APA	35,642	40,715	31,231
b/a	1.23	1.24	1.09
4. Own Resources(OR)/Average Deposits(AD)			
a- AD	29,008	32,781	28,527
b- OR	1,769	2,277	1,551
b/a	0.06	0.07	0.05
5. Financial Income(FI)/Average Productive Assets(APA)			
a- APA	35,642	32,781	28,527
b- FI	13,587	15,211	11,122
% b/a	38.1	46.4	39.0
6. Financial Expenditure(FE)/Average Productive Assets(APA)			
a- APA	35,642	32,781	28,527
b- FE	12,652	13,520	10,650
% b/a	35.5	41.2	37.3
7. Operating Expenditures(OE)/Average Productive Assets(APA)			
a- APA	35,642	32,781	28,527
b- OE	1,951	2,105	2,488
% b/a	4.5	6.4	8.7

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.20

LIMA MUTUALS: CONSOLIDATED BALANCES
(Millions of Constant 1979 Soles)

	1982	&	1983	&	% CHANGE
AVERAGE ASSETS					
Available	5,172	20	2,747	13	<46.9>
Investments	364	1	622	3	70.9
Housing loans	3,980	15	3,304	16	<17.0>
Special loans	13,355	51	9,654	47	<27.7>
Unsold projects	322	1	663	3	105.9
Fixed assets	1,548	6	1,874	9	21.0
Uncollected interest	688	3	942	5	36.9
Other assets	781	3	845	4	8.2
TOTAL ASSETS	26,210	100	20,651	100	<21.2>
AVERAGE LIABILITIES					
Savings deposits	13,175	50	10,844	53	<17.7>
Fixed term deposits	3,158	12	3,019	15	<4.4>
Banvip credits	1,080	4	705	3	<34.7>
Fonavi credits	482	2	1,015	5	110.6
Other liabilities	6,549	25	3,785	18	<42.2>
Reserves	587	2	852	4	45.1
SUB TOTAL	25,031	95	20,220	98	<19.2>
Profit and reserves	1,179	5	431	2	<63.4>
TOTAL LIABILITIES	26,210	100	20,651	100	<21.2>
FINANCIAL RESULTS					
Total income	8,616	100	6,116	100	<29.0>
Interest earned	7,647	89	5,009	82	<34.5>
Interest paid	<6,908>	<81>	<5,507>	<90>	<20.3>
Financial result	739	8	<498>	<8>	<167.4>
Operating costs	<1,231>	<14>	<1,523>	<25>	23.7
Commissions and others	969	11	1,107	18	14.2
Other expenditures	<286>	<3>	<326>	<5>	14.0
RESULTS	191	2	<1,240>	<20>	749.2

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.21

LIMA MUTUALS: FINANCIAL PERFORMANCE INDICATORS
(Millions of Constant 1979 Soles)

	1982	1983
1. Average Productive Assets(APA)/Average Total Assets(ATA)		
a- ATA	26,210	20,651
b- APA	22,871	16,327
b/a	0.873	0.791
2. Uncollected Interest/Portfolio		
a- Portfolio	17,335	12,958
b- Uncollected Interest	688	942
% b/a	4.0	7.3
3. Average Productive Assets(APA)/Average Deposits(AD)		
a- AD	17,895	15,583
b- APA	22,871	16,327
b/a	1.278	1.048
4. Own Resources(OR)/Average Deposits(AD)		
a- AD	17,895	15,583
b- OR	1,179	431
b/a	0.066	0.028
5. Financial Income(FI)/Average Productive Assets(APA)		
a- APA	22,871	16,327
b- FI	7,647	5,009
% b/a	33.4	30.7
6. Financial Expenditure(FE)/Average Productive Assets(APA)		
a- APA	22,871	16,327
b- FE	6,908	5,507
% b/a	30.2	33.7
7. Operating Expenditures(OE)/Average Productive Assets(APA)		
a- APA	22,871	16,327
b- OE	1,231	1,523
% b/a	5.4	9.3

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.22

MUTUALS IN PROVINCES: CONSOLIDATED BALANCES
(Millions of Constant 1979 Soles)

	1982	%	1983	%	% Change
AVERAGE ASSETS					
Available	6,543	33	3,904	23	<40.3>
Investments	348	2	1,182	7	239.7
Housing loans	3,551	18	3,704	22	4.3
Special loans	7,402	37	6,114	37	<17.4>
Unsold projects	225	1	183	1	<18.7>
Fixed assets	864	4	695	4	<19.6>
Uncollected interest	368	2	480	3	30.4
Other assets	655	3	427	3	<34.8>
TOTAL ASSETS	19,956	100	16,689	100	<16.4>
AVERAGE LIABILITIES					
Savings deposits	10,341	52	8,455	50	<18.2>
Fixed term deposits	2,845	14	2,305	14	<19.0>
Banvip credits	1,096	6	1,157	7	5.6
Fonavi credits	609	3	1,027	6	70.0
Other liabilities	3,665	18	2,310	14	<37.0>
Reserves	307	2	315	2	2.6
SUB TOTAL	18,858	95	15,569	93	<17.4>
Profit and reserves	1,098	5	1,120	7	2.0
TOTAL LIABILITIES	19,956	100	16,689	100	<16.4>
FINANCIAL RESULTS					
Total income	8,246	100	6,833	100	<17.1>
Interest earned	7,564	92	6,113	89	<19.2>
Interest paid	<6,612>	<80>	<5,143>	<75>	<22.2>
Financial result	952	12	970	14	1.2
Operating costs	<874>	<11>	<965>	<14>	10.4
Commissions and others	682	8	720	11	5.6
Other expenditures	<101>	<1>	<12>	<2>	10.9
RESULTS	658	8	613	9	<6.8>

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.23

MUTUALS IN PROVINCES: FINANCIAL PERFORMANCE INDICATORS
(Millions of Constant 1979 Soles)

	1982	1983
1. Average Productive Assets(APA)/Average Total Assets(ATA)		
a- ATA	19,956	16,689
b- APA	17,844	14,904
b/a	0.894	0.893
2. Uncollected Interest/Portfolio		
a- Portfolio	10,953	9,818
b- Uncollected Interest	368	480
% b/a	3.0	5.0
3. Average Productive Assets(APA)/Average Deposits(AD)		
a- AD	14,886	12,944
b- APA	17,844	14,904
b/a	1.199	1.151
4. Own Resources(OR)/Average Deposits(AD)		
a- AD	14,886	12,944
b- OR	1,098	1,120
b/a	0.074	0.087
5. Financial Income(FI)/Average Productive Assets(APA)		
a- APA	17,844	14,904
b- FI	7,564	6,113
% b/a	42.4	41.0
6. Financial Expenditure(FE)/Average Productive Asets(APA)		
a- APA	17,844	14,904
b- FE	6,612	5,143
% b/a	37.1	34.5
7. Operating Expenditures(OE)/Average Productive Assets(APA)		
a- APA	17,844	14,904
b- OE	874	965
% b/a	4.9	6.5

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.24

BANVIP: BALANCES
(Millions of Current Soles)

	1981	1982	1983	% Change	% 81	% 82	% 83
AVERAGE ASSETS							
Available	50,770	48,121	63,324	24.7	20.5	12.2	10.3
Investments & securities	48,972	48,180	5,993	<87.7>	19.9	12.3	1.0
Own placements	63,264	123,729	183,675	120.4	25.6	31.5	29.9
Fonavi placements	48,107	131,861	275,898	227.8	19.5	33.5	45.0
Projects in construction	10,315	16,235	49,656	445.3	3.7	4.1	8.1
Receivables	10,659	17,737	20,942	96.5	4.3	4.5	3.4
Fixed assets	5,143	6,204	22,685	146.6	2.0	1.6	2.1
Other assets	9,852	983	1,222	<89>	4.5	0.3	0.2
TOTAL ASSETS	247,082	393,050	613,395	148.2	100	100	100
Soles 1979=100	72,885	67,039	46,483	<36.2>			
AVERAGE LIABILITIES							
Deposits	21,397	32,816	44,996	110.3	8.7	8.3	7.3
Mortgage bonds	27,148	16,947	26,204	23.9	8.6	4.9	4.3
Internal debt	30,292	36,661	32,484	7.2	12.3	9.3	5.3
External debt	23,229	46,415	77,558	233.9	9.4	11.8	12.6
Other liabilities	17,147	30,979	77,050	349.3	6.9	7.9	12.5
SUB TOTAL	113,213	163,818	258,292	128.1	45.9	41.7	42.0
Fonavi fund	113,262	205,507	322,375	209.1	45.8	52.3	52.6
Capital	12,982	15,058	20,569	175.2	3.0	3.8	3.4
Surplus and reserves	7,625	8,667	12,159	<7.4>	5.3	2.2	2.0
TOTAL LIABILITIES	247,082	393,050	613,395	148.2	100	100	100
Soles 1979=100	72,885	67,039	46,483	<36.2>			
FINANCIAL RESULTS							
Total income	60,636	82,073	76,803	26.7	100	100	100
Financial income	59,942	80,963	74,648	24.5	99	99	97
Financial expenditures	<51,846>	<62,390>	<50,976>	<1.7>	<86>	<76>	<66>
Financial results	8,096	18,577	23,672	192.4	13	23	31
Operating costs	<4,612>	<10,725>	<16,583>	259.6	<8>	<13>	<22>
Other income	694	1,106	2,155	210.5	1	1	3
Other expenditures	<819>	<4,354>	<6,769>	726.5	<1>	<5>	<9>
RESULTS	3,359	4,604	2,475	<26.3>	5	6	3

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.25

BANVIP: BALANCES
(Millions of Constant 1979 Soles)

	1982	%	1983	%
AVERAGE ASSETS				
Available	10,768	15.4	5,747	11.1
Investmerts & securities	10,578	15.2	2,794	5.4
Own placements	20,361	29.2	15,854	30.5
Fonavi placements	19,596	28.2	21,029	40.5
Projects in construction	2,891	4.1	3,398	6.5
Receivables	3,092	4.4	1,995	3.8
Fixed assets	1,235	1.8	974	1.9
Other assets	1,180	1.7	114	0.3
TOTAL ASSETS	69,701	100	51,905	100
AVERAGE LIABILITIES				
Deposits	5,903	8.5	4,013	7.7
Mortgage bonds	4,148	6.0	2,225	4.3
Internal debt	7,290	10.5	3,566	6.9
External debt	7,583	10.9	6,394	12.3
Other liabilities	5,240	7.5	5,571	10.7
SUB TOTAL	30,164	43.4	21,769	41.9
Fonavi fund	34,210	49.8	27,224	52.4
Capital	3,053	4.4	1,837	3.6
Surplus and reserves	1,774	2.4	1,075	2.1
TOTAL LIABILITIES	69,701	100	51,905	100
FINANCIAL RESULTS				
Total income	17,873	100	7,922	100
Financial income	17,632	98.7	7,699	97.2
Financial expenditures	<13,587>	<76.0>	<5,258>	<66.4>
Financial results	4,045	22.7	2,441	30.8
Operating costs	<2,336>	<13.1>	<1,710>	<21.6>
Other income	241	1.3	223	2.8
Other expenditures	<948>	<5.3>	698	<8.8>
RESULTS	1,002	5.6	256	3.2

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.26

BANCO DE LA VIVIENDA: FINANCIAL PERFORMANCE INDICATORS

	1982	1983
1. Average Productive Assets(APA)/Average Total Assets(ATA)		
a- ATA	69,701	51,905
b- APA	61,301	45,424
b/a	0.879	0.875
2. Average Productive Assets(APA)/Average Deposits(AD)		
2.1 Without FONAVI		
a- AD	24,924	16,198
b- APA	61,301	45,424
b/a	2.46	2.804
2.2 With FONAVI		
a- AD	59,634	43,422
b- APA	61,301	45,424
b/a	1.028	1.046
3. Own Resources(OR)/Average Deposits(AD)		
a- AD	24,924	16,198
b- OR	4,827	2,912
b/a	0.194	0.18
4. Financial Income(FI)/Average Productive Assets(APA)		
a- APA	61,301	45,424
b- FI	17,632	7,699
% b/a	28.8	16.9
5. Financial Expenditure(FE)/Average Productive Assets(APA)		
a- APA	61,301	45,424
b- FE	13,587	5,258
% b/a	22.2	11.6
6. Operating Expenditures(OE)/Average Productive Assets(APA)		
a- APA	61,301	45,424
b- OE	2,336	1,710
% b/a	3.8	3.8

Source: BANVIP y Superintendencia de Banca y Seguros

TABLE A.27

BCH: DIRECT FINANCING OF NEW HOUSE CONSTRUCTION
(Millions of Current Soles)

	1981		1982		1983	
	No. Units	Amount	No. Units	Amount	No. Units	Amount
OF MINIMUM LEVEL:						
Approved Loans	2,634	3,848	1,949	6,606	1,352	15,069
Finished Loans	799	4,206	803	6,141	1,858	5,757
Amount Disbursed		5,100		7,986		10,648
Average Approved Loan		1.5		3.4		11.1
OF MEDIUM LEVEL:						
Approved Loans	1,204	7,286	388	3,951	1,263	15,860
Finished Loans	876	8,133	1,110	15,746	646	11,668
Amount Disbursed		3,760		15,827		21,631
Average Approved Loan		6.1		10.2		12.6
OF HIGHER COST:						
Approved Loans	1,633	40,179	3,512	97,293	1,068	41,224
Finished Loans	1,065	26,027	2,205	77,519	939	29,589
Amount Disbursed		17,421		53,905		46,478
Average Approved Loan		24.6		27.7		38.6

Source: Superintendencia de Banca y Seguros

TABLE A.28

BCH CONSOLIDATED BALANCES
(Millions of Current Soles)

	1981	%	1982	%	1983	%	% CHANGE
ASSETS							
Available	128,538	50.3	54,623	15.2	87,602	17.1	<31.8>
Investments	47,373	18.5	101,762	28.4	57,628	11.3	21.6
Short-term loans	3,353	1.3	9,693	2.7	44,108	8.6	1,215.5
Long-term loans	58,731	23.0	168,747	47.2	263,844	51.5	349.2
Fixed assets	4,565	1.8	5,841	1.6	24,237	4.7	430.9
Uncollected interest	4,830	1.9	11,929	3.3	24,368	4.8	404.5
Other assets	8,147	3.2	5,669	.1.6	10,339	2.0	26.9
TOTAL ASSETS	255,537	100.0	358,264	100.0	512,126	100.0	100.4
Total Soles-1979	75,380		61,106		38,809		<48.5>
LIABILITIES							
Savings deposits	225,482	88.2	303,100	84.6	385,496	75.3	71.0
Fixed term deposits	-		-		38,746	7.6	-
BCR credits	-		-		747	0.1	-
Fonavi credits	6,839	2.7	31,528	8.8	29,905	5.8	357.3
Internal credits	-		-		-		-
Other Liabilities	15,773	6.2	13,103	3.7	26,506	5.2	68.0
SUB TOTAL	248,094	97.1	347,731	97.1	481,400	94.0	94.0
CAPITAL	4,286	1.7	4,286	1.2	10,079	2.0	135.0
Reserves and Surplus	3,157	1.2	6,247	1.7	20,647	4.0	554.0
TOTAL LIABILITIES	255,537	100.0	358,264	100.0	512,126	100.0	100.0
Total Soles-1979	75,380		61,106		38,809		<48.5>
FINANCIAL RESULTS							
Total income	105,584	100.0	152,612	100.0	212,372	100.0	101.0
Interest earned	103,914	98.4	147,808	96.9	204,223	96.2	96.5
Interest paid	<95,121>	<90.1>	<130,426>	<85.5>	<173,532>	<81.7>	82.4
Financial result	8,793	8.3	17,382	11.4	30,691	14.5	249.0
Operating costs	<3,697>	<3.5>	<11,838>	<7.8>	<23,926>	<11.3>	547.0
Commissions and other income	1,670	1.6	4,804	3.1	8,149	3.8	388.0
Other expenditures	<4,287>	<4.1>	<5,415>	<3.5>	<10,181>	<4.8>	1,375.0
RESULTS	2,479	2.3	4,933	3.2	4,733	2.2	90.9
RESULTS SOLES OF 1979	737		841		359		51.3

Source: Superintendencia de Banca y Seguros

TABLE A.29

BCH: AVERAGE BALANCES
(Millions of Constant 1979 Soles)

	1982	%	1983	%	% Change
ASSETS					
Available	19,943	29.8	7,335	16.3	<63.2>
Investments	16,238	24.3	8,220	18.3	<49.4>
Short-term loans	1,420	2.1	2,775	6.2	95.4
Long-term loans	24,769	37.1	22,310	49.7	<9.9>
Fixed assets	1,133	1.7	1,551	3.5	36.9
Uncollected interest	1,826	2.7	1,872	4.2	2.5
Other assets	1,504	2.3	825	1.8	<45.0>
TOTAL ASSETS	66,838	100.0	44,888	100.0	<32.8>
LIABILITIES					
Savings deposits	57,555	86.1	35,513	79.1	<38.3>
Fixed term deposits	-	-	1,998	4.5	2.0
BCR credits	-	-	39	-	2.0
Fonavi credits	4,177	6.2	3,168	7.1	<24.2>
Other liabilities	3,144	4.7	2,043	4.6	<35.1>
SUB TOTAL	64,876	97.0	42,761	95.3	<34.1>
Capital	933	1.4	740	1.6	<20.7>
Reserves and Profits	1,024	1.6	1,387	3.1	35.4
TOTAL LIABILITIES	66,833	100.0	44,888	100.0	<32.8>
FINANCIAL RESULTS					
Total income	33,234	100.0	21,905	100.0	<34.0>
Interest earned	32,188	96.9	21,065	96.2	<34.6>
Interest paid	<28,403>	<85.5>	<17,899>	<81.7>	<37.0>
Financial result	3,785	11.4	3,166	14.5	<16.3>
Operating costs	<2,578>	<7.8>	<2,468<	<11.3>	<4.3>
Commissions and other income	1,046	3.1	840	3.8	<19.7>
Other expenditures	<1,179>	<3.5>	<1,050>	<4.8>	<10.9>
RESULTS	1,074	3.2	488	2.2	<54.5>

Source: Superintendencia de Banca y Seguros

TABLE A.30

BCH: FINANCIAL PERFORMANCE INDICATORS

1. Average Productive Assets(APA)/Average Total Assets(ATA)

	1982	1983
a- ATA	66,833	44,888
b- APA	62,370	40,640
b/a	0.933	0.905

2. Average Productive Assets(APA)/Average Deposits(AD)

a- AD	61,732	40,718
b- APA	62,370	40,640
b/a	101	0.998

3. Own Resources(OR)/Average Deposits(AD)

a- AD	61,732	40,718
b- OR	1,957	2,127
b/a	0.03	0.05

5. Financial Income(FI)/Average Productive Assets(APA)

a- APA	62,370	40,640
b- FI	32,188	21,065
% b/a	51.6	51.8

6. Financial Expenditure(FE)/Average Productive Assets(APA)

a- APA	62,370	40,640
b- FE	28,403	17,899
% b/a	45.5	44.0

7. Operating Expenditures(OE)/Average Productive Assets(APA)

a- APA	62,370	40,640
b- OE	2,578	2,468
% b/a	4.1	6.1

Source: Superintendencia de Banca y Seguros

TABLE A.31

BANCO DE MATERIALES: BALANCES
(Millions of Constant 1979 Soles)

	1982	%	1983	%	%
Average Assets					
Available/investments	217	19.0	232	14.0	6.9
Materials inventory	78	6.8	118	7.1	51.3
Net credits due	782	68.6	1,263	76.3	61.5
Fixed assets	18	1.6	17	1.0	<5.5>
Other assets	45	4.0	25	1.6	<44.4>
TOTAL ASSETS	1,140	100.0	1,655	100.0	45.2
Average Liabilities					
Long-term debt	271	23.8	661	39.9	143.9
Other liabilities	262	23.0	455	27.5	73.7
SUB TOTAL	583	46.8	1,116	67.4	109.4
Average capital	218	19.1	166	10.0	<23.8>
Additional capital	182	16.0	282	17.0	54.9
Reserves and profit	207	18.1	91	5.6	<56.0>
TOTAL LIABILITIES	1,140	100.0	1,655	100.0	45.2
Financial Results					
Total income	383	100.0	435	100.0	13.6
Financial income	274	71.5	229	52.6	<45.0>
Financial expenditure	<54>	<14.1>	<88>	<20.2>	62.9
Financial results	220	57.4	141	32.8	<36.0>
Sales earnings	103	26.9	186	42.8	80.6
Operating expenses	<170>	<44.4>	<314>	<72.2>	84.7
Other income/expenses	6	1.6	20	4.6	233.3
RESULTS	159	41.5	33	7.6	<79.0>

Source: Banco de Materiales

TABLE A.32

ENACE: CONSOLIDATED BALANCES
(Millions of Current Soles)

	1981	1982
ASSETS		
Current assets	3,379	4,383
Long-term assets	3,197	2,096
Inventories	3,790	4,179
Other assets	79	396
LIABILITIES	10,445	11,054
Current liabilities	1,254	1,937
Non-current liabilities	7,745	7,420
Patrimony	1,446	1,697
TOTAL	10,445	11,054
FINANCIAL RESULTS		
Total income	1,925	7,832
Commissions	--	5,444
Financial income	383	743
Other earnings from operation	1,405	1,113
SUB-TOTAL	1,788	7,300
Operating expenses	<1,385>	<6,588>
Other earnings	137	532
Other expenditures	<108>	<592>
TOTAL	432	652

Source: ENACE

TABLE A.33

SENAPA: BALANCES
(Millions of Current Soles)

	1982	1983
ASSETS		
Current assets	2,157	14,323
Fixed assets	3,311	88,304
Investments	637	78,304
Other assets	64	3,463
TOTAL	6,169	184,855
LIABILITIES		
Current liabilities	534	3,372
Long-term debt	--	2,808
Other liabilities	13	1,263
Patrimony	5,622	177,412
TOTAL	6,169	184,855
FINANCIAL RESULTS		
Income	892	21,988
Expenditures	<771>	<23,374>
Other income/expenditures (net)	16	1,386
RESULTS	137	(1)

Source: SENAPA

APPENDIX TABLE A.34

HOUSEHOLD INCOME DISTRIBUTION
(Percentage Shares by Quintile)

Quintiles		Lima-Callao	Other Urban	Rural
Lowest	1	6	4	3
	2	9	10	7
	3	14	15	12
	4	21	22	20
Highest	5	50	49	58

Source: PADCO elaboration of data in Amat y Leon, 1972.