

Table 7-14 A PROJECTION OF FINANCIAL TRANSACTION AND SETTLEMENT TOWARD 2000
(PLAN A: Case in which Kyrgyz economy continue to be stagnant or fall in economy)

Relevant Data	1993	1994	1995	1996	1997	1998	1999	2000
Population	4,450,000	4,410,000	4,371,000	4,332,000	4,354,000	4,375,000	4,397,000	4,419,000
Number of agricultural sector	390	370	350	320	260	200	160	120
State enterprises	13,000	15,000	17,000	19,500	22,800	27,800	31,100	34,400
Private farms	17,867	19,200	25,200	28,000	33,600	40,200	45,800	49,600
Number of enterprises	4,822	4,500	4,100	3,800	3,400	2,700	1,500	1,500
State enterprises	13,045	14,700	21,100	24,200	30,200	37,500	43,700	48,100
Private enterprises	246	365	423	494	607	725	891	1,079
Deposit by enterprises	(1,000,000 Som)	8,229	7,646	7,970	8,248	8,201	8,906	9,901
(Som)	58	75	112	156	213	311	419	581
Balance per account	1,160	1,250	1,400	1,560	1,469	1,637	1,612	1,761
Balance per account	21	19	19	19	19	19	19	19
Number of commercial banks	590	560	560	560	560	560	560	560
Number of bank branches	89,000	104,355	135,325	161,980	218,590	278,400	360,040	438,980
Number of deposit accounts	39,000	44,355	55,325	61,980	73,590	88,400	100,040	108,980
Number of enterprise accounts	50,000	60,000	80,000	100,000	145,000	190,000	260,000	330,000
% to labor force	2%	3%	3%	4%	6%	8%	11%	14%
Those of salary payment								
Those of automatic transfer								
Number of cards-accepting enterprises				500	750	1,125	1,688	2,531
Number of card holders(domestic people)				0	0	0	0	10,000
Average usage per month								0.50
Total number of payment transactions	7,493,000	4,375,000	5,690,000	7,652,250	8,814,313	13,200,519	16,419,263	21,025,632
Calculated growth rate(%)		Base	30%	34%	15%	50%	28%	24%
Inter-bank market transactions	7,493,000	4,375,000	5,687,500	7,393,750	8,502,813	12,725	14,250	23,750
Customer-requested transfer		Base	30%	30%	15%	9,914,279	9,914,279	10,310,851
Growth rate(%)						10%	6%	4%
Salary payment						480,000	960,000	1,920,000
Automatic transfer						1,200,000	2,400,000	3,600,000
Payment through CD/ATM						2,150,400	3,120,240	4,553,880
Deposit through CD/ATM						9,900	10,494	326,776
Credit card						9,900	10,494	326,776
Inter-bank/intra-bank transactions	7,493,000	4,375,000	5,690,000	7,652,250	8,814,313	13,204,119	16,429,019	22,181,552
Ratio to total no. of payment tx	100%	100%	100%	100%	100%	100%	100%	105%
Inter-bank transactions	3,371,850	1,968,750	2,561,875	3,335,688	3,837,766	4,733,517	5,503,926	7,249,193
Ratio to total no. of payment tx	45%	45%	45%	44%	44%	36%	34%	25%
Inter-bank market						7,125	14,250	23,750
Customer-request						4,208,892	4,461,426	4,639,883
Salary payment						144,000	288,000	564,000
Automatic transfer						360,000	720,000	1,440,000
Payment through CD/ATM						460,138	920,276	1,840,552
Deposit through CD/ATM						57,428	114,856	229,712
Credit card						13,500	27,000	54,000
Intra-bank transactions	4,121,150	2,406,250	3,128,125	4,316,563	4,976,547	8,470,602	10,925,094	16,932,439
Ratio to total no. of payment tx	55%	55%	55%	56%	56%	64%	67%	81%
Customer-request						5,144,202	5,452,854	5,670,968
Salary payment						336,000	672,000	1,344,000
Automatic transfer						840,000	1,680,000	3,360,000
Payment through CD/ATM						2,150,400	3,120,240	4,098,480
Deposit through CD/ATM						300,000	300,000	300,000
Credit card						250,000	250,000	250,000

Source: Study Team

Table 7-14 B PROJECTION OF FINANCIAL TRANSACTION AND SETTLEMENT TOWARD 2000

(PLAN B: Case in which Kyrgyz economy will get a favorable up)

Relevant Data	1993	1994	1995	1996	1997	1998	1999	2000
Population	4,450,000	4,410,000	4,371,000	4,332,000	4,270,000	4,489,000	4,570,000	4,652,000
Number of agricultural sector								
State enterprises	13,000	21,900	28,200	33,300	36,300	38,200	38,900	39,000
Private farms	17,867	23,900	33,800	47,800	57,300	57,300	57,300	57,300
Number of enterprises								
State enterprises	4,822	4,100	3,000	2,000	1,500	1,500	1,500	1,500
Private enterprises	13,045	19,800	30,800	45,800	55,800	55,800	55,800	55,800
Deposit by enterprises	246	383	693	920	1,059	1,278	1,571	1,901
(1,000,000 Som)								
Balance per account	6,308	5,448	7,204	7,124	7,012	8,362	10,234	12,376
(Som)								
Deposit by individuals	58	102	207	290	392	548	739	1,024
(1,000,000 Som)								
Balance per account	1,160	1,700	2,588	2,900	2,240	2,192	1,971	2,048
(Som)								
Number of commercial banks	21	19	19	19	19	19	19	19
Number of bank branches	590	560	560	560	560	560	560	560
Number of deposit accounts	89,000	130,300	176,200	229,140	326,020	402,840	528,510	653,600
Number of enterprise accounts	39,000	70,300	96,200	129,140	151,020	152,840	153,510	153,600
Number of individual accounts	50,000	60,000	80,000	100,000	175,000	250,000	375,000	500,000
% to labor force	2%	3%	3%	4%	7%	10%	15%	20%
Those of salary payment								
Those of automatic transfer								
Credit card								
Number of cards-accepting enterprises			500		750	1,125	1,688	2,551
Number of card holders (domestic people)			0		0	10,000	50,000	100,000
Average usage per month						0.50	0.50	0.80
Total number of payment transactions	7,493,000	6,250,000	9,377,500	14,321,000	16,483,375	26,495,321	35,692,865	48,915,445
Calculated growth rate (%)		Base	50%	53%	15%	61%	35%	37%
Inter-bank market transactions			2,500	2,500	2,500	7,125	14,250	23,750
Customer-requested transfer	7,493,000	6,250,000	9,375,000	14,062,500	16,171,875	18,597,656	21,387,305	24,595,400
Growth rate (%)		Base	50%	50%	15%	15%	15%	15%
Salary payment				250,000	300,000	1,200,000	2,400,000	4,800,000
Automatic transfer						3,000,000	6,000,000	9,000,000
Payment through CD/ATM						3,617,040	5,571,060	8,721,600
Deposit through CD/ATM								784,320
Credit card								990,375
Inter-bank/Intra-bank transactions	7,493,000	6,250,000	9,377,500	14,321,000	16,483,375	26,495,321	35,692,865	51,738,885
Ratio to total no. of payment trx	100%	100%	100%	100%	100%	100%	100%	100%
Ratio to total no. of payment trx								
Inter-bank market	3,371,850	2,812,500	4,221,250	6,336,625	7,288,844	9,649,570	12,178,787	12,174,487
Customer-request	45%	45%	45%	44%	44%	36%	34%	25%
Salary payment			2,500	2,500	2,500	7,125	14,250	23,750
Automatic transfer	3,371,850	2,812,500	4,218,750	6,328,125	7,277,344	8,368,945	9,624,287	11,067,930
Payment through CD/ATM						360,000	720,000	91,200
Deposit through CD/ATM						900,000	1,800,000	1,140
Credit card								876,910
Ratio to total no. of payment trx								83,182
Intra-bank transactions	4,121,150	3,437,500	5,156,250	7,984,375	9,194,531	16,845,751	23,514,078	39,564,398
Customer-request	55%	55%	55%	56%	56%	64%	66%	81%
Salary payment	4,121,150	3,437,500	5,156,250	7,734,375	8,894,531	10,228,711	11,763,018	13,527,470
Automatic transfer						840,000	1,680,000	2,400,000
Payment through CD/ATM						2,100,000	4,200,000	6,000,000
Deposit through CD/ATM			250,000		300,000	2,100,000	4,200,000	6,000,000
Credit card						3,617,040	5,571,060	7,849,440
Ratio to total no. of payment trx								705,888
Credit card						60,000	300,000	960,000

Source: Study Team

Table 7-15 TRANSACTION VOLUME ANALYSIS

	Population (millions)	Annual Volume (millions)	Per Head Volume B/A
Belgium	10.00	928.8	92.9
Canada	27.44	3,422.4	124.7
France	57.37	9,593.1	167.2
Germany	80.59	10,215.6	126.8
Italy	57.73	1,819.2	31.5
Japan	124.34	4,169.7	33.5
Netherland	15.18	1,808.0	119.1
Sweden	8.69	799.0	91.9
Switzerland	6.90	437.2	63.4
United Kingdom	57.85	6,606.0	114.2
United States	255.02	72,555.0	284.5
Average	63.74	10,214.0	160.3
Kyrgyz in 1993	4.41	7.5	1.7
Kyrgyz Plan A	4.42	21.0	4.8
Kyrgyz Plan B	4.65	48.9	10.5

Note: 1993 data. For Kyrgyz in 1003 and 2000 projection.

Source: BIS and Study Team

**Table 8-1 THE SIZE OF SHORT-TERM MONEY MARKET
AND FOREIGN EXCHANGE MARKET IN 2000**

	INTER-BANK MARKET (million Som)	T/B SECONDARY MARKET (million Som)	FOREIGN EXCHANGE MARKET (million Som)
TURNOVER	24,752	17,182	348
AMOUNT STANDING	476	955	-
PERCENTAGE TO NOMINAL GDP (%)	0.60	1.21	-

Note: Figures are estimates by the Study Team

Table 9-1 PROBLEM ANALYSIS UNDER CLASSIFICATION

Area	Problems	Possible Solution	Actions
Data processing area	Incomplete clearing facility	To establish clearing house with standard and automation	To introduce clearing system
	Missing finality of the central bank	Recalling the final settlement at the central bank	To introduce the settlement system at NBK
	Lack of funds for payment	To organize centralized setting	To introduce the netting facility on the clearing system
	Mixed processing on inter-bank and intra-bank payments	To split inter-bank services and intra-bank ones	Independent system with the specialized functions
	Delay on payment procedure	To connect all the banks electrically all the time	Message generation at office with access to network
	Incomplete computerization	To introduce central processing in the host system	Co-operative computer system for shared use
	Data processing at the level of branch office facility	To separate inter-bank payment from intra-bank payment	Logically separated network for inter and intra-bank use
Data entry area	Lack of competition	To introduce free competition among commercial banks	Free access to network by commercial banks
	Document based payment	To introduce automation at every branch office	Office system, easy to use and to introduce
Communication area	Mail transmission of payment orders	Data transmission of payment orders via computer network	To provide data transmission service for long distance
	Small capacity on the communication lines	To share the fast communication lines or services	To obtain high quality lines for shared network
	Data processing services in limited area	To provide communication services over the country	To introduce network node at main point in each region
	Complicated way of data collection	To provide access points with the standard methods	To introduce network node with standard connection methods

Table 9-2 Outline of Subsystems

Office System	Node System	Message Switching System	Intra-bank System	Clearing System	NBK Settlement System
Business operations	Receiving data from Office Systems	Receiving data from Node Systems	Open/Close A/Cs of branch offices	Open/Close positions of Commercial banks	Open/Close A/Cs of Commercial banks
Deposits	from Office Systems	from Node Systems			
Credits	from Node Systems	from Clearing System			
Payment Orders	from Message Switching System	from NSS	Receiving P/I from Message Switching System	Receiving P/I from Message Switching System	Receiving P/I
Accounting etc.	Response to sender	from Intra-bank System	from Message Switching System		
Copying payment data	Logging received data	from Banks' system	Debiting sender's A/C	Debiting sender's position	Debiting sender's A/C at RTGS
Sealing payment data	Validation checking	Response to sender	Crediting receiver's A/C	Crediting receiver's position	Crediting receiver's A/C at RTGS
Saving unconfirmed payment data	Formal conversion	Logging received data			
Receiving confirmation	Queuing sending data	Validation checking	Sending confirmation to the senders	Sending confirmation to the senders	Sending confirmation to the senders
Reconciliation	Sending data to Office Systems	Queuing sending data	Other Operations if required	Notifying final positions to all the participants	Updating balance by the final positions
Receiving Incoming payment order	to Node Systems	Sending data to Clearing System to NSS		Accept authorization from participants	Notifying balance to commercial banks
Sending Confirmation	to Communication Center	to Intra-bank system to Banks' system		Sending final position to NSS	
	Sending error report	Monitoring network			
	Monitoring equipments	Alarm presentation			
	Monitoring lines	Switch to back ups			
	Switch to back ups	Remote login			
	Remote login	Distributing software			

Table 14-1 ESTIMATED CONSERVATION OF FLOATING FUNDS

	(1st Phase)										(2nd Phase)			
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Unsettled Amounts (000 Som)	167,777	218,110	283,543	326,074	358,681	380,202	395,410	411,227	427,676	444,783	462,574	481,077	500,320	520,333
Growth Rate (%)		30	30	15	10	6	4	4	4	4	4	4	4	4
Credit Multipliers	1.24	1.30	1.34	1.40	1.59	1.72	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86
Appraisal Value (000 Som)	208,043	283,047	379,947	456,503	570,302	653,947	735,462	764,882	792,477	827,296	860,387	894,803	930,595	967,819
Valuation Rate (%)	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Loss of Annual Opportunity Cost (Effectiveness) (%)	41,608	56,708	75,983	91,300	114,060	130,789	147,092	152,976	159,095	165,459	172,077	178,960	186,119	193,564

Note: Numbers up to 1997 are only reference due to un-effectiveness.

Table 14-2 BENEFIT BY MANPOWER SAVING IN AVIZO SERVICE

	(1st Phase)										(2nd Phase)						
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
Labor Savings (minutes)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Total Annual Number of Transfer (000)	935	991	1,031	1,115	1,160	1,206	1,254	1,305	1,357	1,411							
Total Annual Work Hours (h)	31,177	33,048	34,370	37,174	38,661	40,207	41,816	43,488	45,228	47,037							
Manpower Savings (man)	17.8	18.9	19.6	21.2	22.1	23	23.9	24.9	25.8	26.9							
Annual Manpower Cost (000 Som)	10,325	10,685	11,057	11,442	11,840	12,253	12,679	13,121	13,578	14,051							
Annual Manpower Savings (000 Som)	184	202	217	243	262	282	303	326	351	378							

Table 14-3 BENEFIT MANPOWER SAVING IN UNSETTLED A/C PROVING SERVICE

	(1st Phase)										(2nd Phase)						
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
Labor Savings (minutes)	1	1	1	1	1	1	1	1	1	1							
Total Annual Number of Transfer (000)	935	991	1,031	1,115	1,160	1,206	1,254	1,305	1,357	1,411							
Total Annual Work Hours per Employee (h)	155,883	165,236	171,846	178,720	185,868	193,303	201,035	209,077	217,440	226,137							
Manpower Savings (man)	89	94	98	102	106	110	115	119	124	129							
Annual Manpower Cost (000 Som)	10,325	10,685	11,057	11,442	11,840	12,253	12,679	13,121	13,578	14,051							
Annual Manpower Savings (000 Som)	920	1,009	1,086	1,169	1,258	1,353	1,457	1,568	1,687	1,816							

Table 14-4 SUMMARY OF TOTAL ECONOMIC BENEFIT

	(1st Phase)										(2nd Phase)						
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
Decrease of Float (000 Som)	114,060	130,789	147,092	152,976	159,095	165,459	172,077	178,960	186,119	193,564							
Abolition of Avizo (Manpower Savings) (man)	184	202	217	243	262	282	303	326	351	378							
Decrease of Confirmation Work (Manpower Savings) (man)	89.0	94.4	98.1	102.1	106.1	110.4	114.8	119.4	124	129							
Total Monetary Effect (Manpower Savings) (man)	115,164	132,000	148,395	154,388	161,177	167,994	174,940	182,047	189,207	196,493							

Table 14-5 ECONOMIC RATE OF RETURN (1/10): BASE CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost													
(1) Facilities	517	13302	3855	4741	6320	3589	2968	2968	2968	2968	2968	2968	2968
Hardware purchase	517	13302	3855	2087	3666	621	0	0	0	0	0	0	0
Auxiliary facilities	1905	7081	0	0	687	0	0	0	0	0	0	0	0
Transport Expenses	1272	6216	0	0	295	0	0	0	0	0	0	0	0
Installation costs	400	0	0	0	0	0	0	0	0	0	0	0	0
Contingencies	37	137	0	0	20	0	0	0	0	0	0	0	0
(2) Software	23	84	0	0	12	0	0	0	0	0	0	0	0
Basic software purchase	173	644	0	0	360	0	0	0	0	0	0	0	0
Software development	3211	6151	3785	2045	2948	608	0	0	0	0	0	0	0
System transition	873	1771	0	0	129	0	0	0	0	0	0	0	0
Testing	1356	2652	972	432	720	0	0	0	0	0	0	0	0
Translators fee	0	0	576	288	240	336	0	0	0	0	0	0	0
International travel	256	384	544	384	448	96	0	0	0	0	0	0	0
Lodging/perdiem allowance	38	36	115	76	86	35	0	0	0	0	0	0	0
Contingencies	88	146	437	293	317	86	0	0	0	0	0	0	0
(3) Other Expenses	600	1162	565	284	432	55	0	0	0	0	0	0	0
Preoperating expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Contingencies	37	64	64	38	28	12	0	0	0	0	0	0	0
	4	6	6	4	3	1	0	0	0	0	0	0	0
2. Operating Costs													
(1) Variable Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
Electric power charge	0	0	0	26	26	43	43	43	43	43	43	43	43
Telecom. line charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Direct labor costs	0	0	0	13	13	29	29	29	29	29	29	29	29
General overhead	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Maintenance cost	0	0	0	49	49	49	49	49	49	49	49	49	49
Office rental	0	0	0	31	31	31	31	31	31	31	31	31	31
(2) Fixed Costs	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	11516	13200	14840	15439	16062	16709	17384	18086	18816	19576
(2) Abolition of A viso	0	0	0	11406	13079	14709	15298	15910	16546	17208	17896	18612	19356
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-517	-13302	-3855	6775	6880	11251	12471	13094	13741	14416	15118	15848	16608

NPV AT CUT-OFF RATE OF 12% :

32148

INC. RATIO: 1.86

EIRR = 31.66%

Table 14-5 ECONOMIC RATE OF RETURN (2/10): INVESTMENT +10% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	5673	14632	4241	4950	6687	3651	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	5673	14632	4241	2296	4033	683	0	0	0	0	0	0	0
Hardware purchase	2096	7789	0	0	756	0	0	0	0	0	0	0	0
Auxiliary facilities	1399	6838	0	0	325	0	0	0	0	0	0	0	0
Transport Expenses	440	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	41	151	0	0	22	0	0	0	0	0	0	0	0
Contingencies	25	92	0	13	0	0	0	0	0	0	0	0	0
(2) Software	190	708	0	0	396	0	0	0	0	0	0	0	0
Basic software purchase	3532	6766	4164	2250	3243	669	0	0	0	0	0	0	0
Software development	960	1948	0	0	142	0	0	0	0	0	0	0	0
System transition	1492	2917	1069	475	792	0	0	0	0	0	0	0	0
Testing	0	0	634	317	264	370	0	0	0	0	0	0	0
Translators fee	282	422	598	422	493	106	0	0	0	0	0	0	0
International travel	42	40	127	84	95	39	0	0	0	0	0	0	0
Lodging/perdiem allowance	97	161	481	322	349	95	0	0	0	0	0	0	0
Contingencies	660	1278	622	312	475	61	0	0	0	0	0	0	0
(3) Other Expenses	45	77	77	46	34	14	0	0	0	0	0	0	0
Preoperating expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Contingencies	4	7	7	4	3	1	0	0	0	0	0	0	0
2. Operating Costs													
(1) Variable Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
Electric power charge	0	0	0	26	26	43	43	43	43	43	43	43	43
Telecom. line charge	0	0	0	13	13	14	14	14	14	14	14	14	14
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	11516	13200	14840	15439	16062	16709	17384	18086	18816	19576
(2) Abolition of Aviso	0	0	0	11406	13079	14709	15298	15910	16546	17208	17896	18612	19356
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-5673	-14632	-4241	6566	6513	11189	12471	13094	13741	14416	15118	15848	16608

EIRR = 29.08%

B/C RATIO: 1.75

29720

NPV AT CUT-OFF RATE OF 12% :

Table 14-5 ECONOMIC RATE OF RETURN (3/10): INVESTMENT +20% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	6188	15962	4626	5158	7053	3713	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	6188	15962	4626	2504	4399	745	0	0	0	0	0	0	0
Hardware purchase	2286	8497	0	0	824	0	0	0	0	0	0	0	0
Auxiliary facilities	1526	7459	0	0	354	0	0	0	0	0	0	0	0
Transport Expenses	44	164	0	0	0	0	0	0	0	0	0	0	0
Installation costs	28	101	0	0	14	0	0	0	0	0	0	0	0
Contingencies	208	773	0	0	432	0	0	0	0	0	0	0	0
(2) Software	3853	7381	4542	2454	3538	730	0	0	0	0	0	0	0
Basic software purchase	1048	2125	0	0	155	0	0	0	0	0	0	0	0
Software development	1627	3182	1166	518	864	0	0	0	0	0	0	0	0
System transition	0	0	691	346	288	403	0	0	0	0	0	0	0
Testing	0	0	691	346	691	0	0	0	0	0	0	0	0
Translators fee	307	461	653	461	538	115	0	0	0	0	0	0	0
International travel	46	43	138	91	103	42	0	0	0	0	0	0	0
Lodging/perdiem allowance	106	175	524	352	380	103	0	0	0	0	0	0	0
Contingencies	720	1394	678	341	518	66	0	0	0	0	0	0	0
(3) Other Expenses	49	84	84	50	37	16	0	0	0	0	0	0	0
Preoperating expenses	44	77	77	46	34	14	0	0	0	0	0	0	0
Contingencies	5	7	7	5	4	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	14	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	11516	13200	14840	15439	16062	16709	17384	18086	18816	19576
(2) Abolition of Aviso	0	0	0	11406	13079	14709	15298	15910	16546	17208	17896	18612	19356
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW													
	-6188	-15962	-4626	6358	6147	11127	12471	13094	13741	14416	15118	15848	16608

NPV AT CUT-OFF RATE OF 12% : 27293

I/C RATIO: 1.65

EIRR = 26.81%

Table 14-5 ECONOMIC RATE OF RETURN (4/10): INVESTMENT -10% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost													
(1) Facilities	4641	11972	3470	4532	5953	3527	2968	2968	2968	2968	2968	2968	2968
Hardware purchase	4641	11972	3470	1878	3299	559	0	0	0	0	0	0	0
Auxiliary facilities	1715	6373	0	0	618	0	0	0	0	0	0	0	0
Transport Expenses	1145	5594	0	0	266	0	0	0	0	0	0	0	0
Installation costs	360	0	0	0	0	0	0	0	0	0	0	0	0
Contingencies	33	123	0	0	18	0	0	0	0	0	0	0	0
(2) Software	21	76	0	0	11	0	0	0	0	0	0	0	0
Basic software purchase	156	580	0	0	324	0	0	0	0	0	0	0	0
Software development	2890	5536	3407	1841	2653	547	0	0	0	0	0	0	0
System transition	1220	2387	875	389	648	0	0	0	0	0	0	0	0
Testing	0	0	518	259	216	302	0	0	0	0	0	0	0
Translators fee	0	0	518	259	518	0	0	0	0	0	0	0	0
International travel	34	346	490	346	403	86	0	0	0	0	0	0	0
Lodging/perdiem allowance	79	131	393	264	285	77	0	0	0	0	0	0	0
Contingencies	540	1046	509	256	389	50	0	0	0	0	0	0	0
(3) Other Expenses	37	63	63	38	28	12	0	0	0	0	0	0	0
Preoperating expenses	33	58	58	34	25	11	0	0	0	0	0	0	0
Contingencies	4	5	5	4	3	1	0	0	0	0	0	0	0
2. Operating Costs													
(1) Variable Costs													
Electric power charge	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
Telecom. line charge	0	0	0	26	26	43	43	43	43	43	43	43	43
(2) Fixed Costs													
Direct labor costs	0	0	0	13	13	14	14	14	14	14	14	14	14
General overhead	0	0	0	13	13	29	29	29	29	29	29	29	29
Maintenance cost	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Office rental	0	0	0	49	49	49	49	49	49	49	49	49	49
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	11516	13200	14840	15439	16062	16709	17384	18086	18816	19576
(2) Abolition of Aviso	0	0	0	11406	13079	14709	15298	15910	16546	17208	17896	18612	19356
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-4641	-11972	-3470	6984	7247	11313	12471	13094	13741	14416	15118	15848	16608

NPV AT CUT-OFF RATE OF 12% :

B/C RATIO: 1.99

EIRR = 34.65%

Table 14-5 ECONOMIC RATE OF RETURN (5/10): INVESTMENT -20% CASE

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(UNIT: 1,000 US\$)													
ECONOMIC COST													
1. Investment Cost	4126	10642	3084	4324	5587	3465	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	4126	10642	3084	1670	2933	497	0	0	0	0	0	0	0
Hardware purchase	1524	5665	0	0	550	0	0	0	0	0	0	0	0
Auxiliary facilities	1018	4973	0	0	236	0	0	0	0	0	0	0	0
Transport Expenses	320	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	30	110	0	0	16	0	0	0	0	0	0	0	0
Contingencies	18	67	0	0	10	0	0	0	0	0	0	0	0
(2) Software	138	515	0	0	288	0	0	0	0	0	0	0	0
Basic software purchase	2569	4921	3028	1636	2358	486	0	0	0	0	0	0	0
Software development	698	1417	0	0	103	0	0	0	0	0	0	0	0
System transition	1085	2122	778	346	576	0	0	0	0	0	0	0	0
Testing	0	0	461	230	192	269	0	0	0	0	0	0	0
Translators fee	205	307	435	307	358	77	0	0	0	0	0	0	0
International travel	30	29	92	61	69	28	0	0	0	0	0	0	0
Lodging/perdiem allowance	70	117	350	234	254	69	0	0	0	0	0	0	0
Contingencies	480	930	452	227	346	44	0	0	0	0	0	0	0
(3) Other Expenses	33	56	56	34	25	10	0	0	0	0	0	0	0
Preoperating expenses	30	51	51	30	22	10	0	0	0	0	0	0	0
Contingencies	3	5	5	3	2	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	11516	13200	14840	15439	16062	16709	17384	18086	18816	19576
(2) Abolition of Aviso	0	0	0	11406	13079	14709	15298	15910	16546	17208	17896	18612	19356
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW													
	-4126	-10642	-3084	7192	7613	11375	12471	13094	13741	14416	15118	15848	16608

NPV AT CUTOFF RATE OF 12% :

37003

B/C RATIO: 2.14

IIRR = 38.16%

Table 14-5 ECONOMIC RATE OF RETURN (6/10): INVESTMENT -30% CASE

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(UNIT: 1,000 US\$)													
ECONOMIC COST													
1. Investment Cost	3610	9311	2699	4115	5220	3403	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	1334	4957	0	1461	2566	435	0	0	0	0	0	0	0
Hardware purchase	890	4351	0	0	207	0	0	0	0	0	0	0	0
Auxiliary facilities	280	0	0	0	0	0	0	0	0	0	0	0	0
Transport Expenses	26	96	0	0	14	0	0	0	0	0	0	0	0
Installation costs	16	59	0	0	8	0	0	0	0	0	0	0	0
Contingencies	121	451	0	0	252	0	0	0	0	0	0	0	0
(2) Software	2248	4306	2650	1432	2064	426	0	0	0	0	0	0	0
Basic software purchase	611	1240	0	0	90	0	0	0	0	0	0	0	0
Software development	949	1856	680	302	504	0	0	0	0	0	0	0	0
System transition	0	0	403	202	168	235	0	0	0	0	0	0	0
Testing	0	0	403	202	403	0	0	0	0	0	0	0	0
Translators fee	179	269	381	269	314	67	0	0	0	0	0	0	0
International travel	27	25	81	53	60	25	0	0	0	0	0	0	0
Lodging/perdiem allowance	62	102	306	205	222	60	0	0	0	0	0	0	0
Contingencies	420	813	396	199	302	39	0	0	0	0	0	0	0
(3) Other Expenses	29	49	49	29	22	9	0	0	0	0	0	0	0
Preoperating expenses	26	45	45	27	20	8	0	0	0	0	0	0	0
Contingencies	3	4	4	3	2	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT	0	0	0	11516	13200	14840	15439	16062	16709	17384	18086	18816	19576
(1) Decrease of Float	0	0	0	11406	13079	14709	15298	15910	16546	17208	17896	18612	19356
(2) Abolition of Aviso	0	0	0	18	20	22	24	26	28	30	33	35	38
(3) Decrease of Manpower	0	0	0	92	101	109	117	126	135	146	157	169	182
NET BENEFIT FLOW	-3610	-9311	-2699	7401	7980	11437	12471	13094	13741	14416	15118	15848	16608

EIRR = 42.38%

B/C RATIO: 2.32

NPV AT CUT-OFF RATE OF 12%: 39430

Table 14-5 ECONOMIC RATE OF RETURN (7/10): NET BENEFIT +10% CASE

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(UNIT: 1,000 US\$)													
ECONOMIC COST													
1. Investment Cost	5157	13302	3855	4741	6320	3589	2968	2968	2968	2968	2968	2968	2968
(1) Facilities													
Hardware purchase	1272	6216	0	0	295	0	0	0	0	0	0	0	0
Auxiliary facilities	400	0	0	0	0	0	0	0	0	0	0	0	0
Transport Expenses	37	137	0	0	20	0	0	0	0	0	0	0	0
Installation costs	23	84	0	0	12	0	0	0	0	0	0	0	0
Contingencies	173	644	0	0	360	0	0	0	0	0	0	0	0
(2) Software													
Basic software purchase	3211	6151	3785	2045	2948	608	0	0	0	0	0	0	0
Software development	873	1771	0	0	129	0	0	0	0	0	0	0	0
System transition	1356	2652	972	432	720	0	0	0	0	0	0	0	0
Testing	0	0	576	288	240	336	0	0	0	0	0	0	0
Translators fee	256	384	576	288	576	0	0	0	0	0	0	0	0
International travel	38	36	544	384	448	96	0	0	0	0	0	0	0
Lodging/perdiem allowance	88	146	115	86	86	35	0	0	0	0	0	0	0
Contingencies	600	1162	437	293	317	86	0	0	0	0	0	0	0
(3) Other Expenses													
Preoperating expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Contingencies	37	64	64	38	28	12	0	0	0	0	0	0	0
	4	6	6	4	3	1	0	0	0	0	0	0	0
2. Operating Costs													
(1) Variable Costs													
Electric power charge	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
Telecom. line charge	0	0	0	26	26	43	43	43	43	43	43	43	43
(2) Fixed Costs													
Direct labor costs	0	0	0	13	13	14	14	14	14	14	14	14	14
General overhead	0	0	0	13	13	29	29	29	29	29	29	29	29
Maintenance cost	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Office rental	0	0	0	49	49	49	49	49	49	49	49	49	49
ECONOMIC BENEFIT													
(1) Decrease of float	0	0	0	12657	14508	16311	16969	17653	18364	19105	19876	20677	21512
(2) Abolition of Aviso	0	0	0	12547	14387	16180	16828	17501	18201	18929	19686	20473	21292
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
	0	0	0	92	101	109	117	126	135	146	157	169	182
NET BENEFIT FLOW	-5157	-13302	-3855	7916	8188	12722	14001	14685	15396	16137	16908	17709	18544

NPV AT CUT-OFF RATE OF 12% :

39017

B/C RATIO: 2.05

EIRR = 34.97%

Table 14-5 ECONOMIC RATE OF RETURN (8/10): NET BENEFIT +20% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	5157	13302	3855	4741	6320	3589	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	5157	13302	3855	2087	3666	621	0	0	0	0	0	0	0
Hardware purchase	1905	7081	0	0	687	0	0	0	0	0	0	0	0
Auxiliary facilities	1272	6216	0	0	295	0	0	0	0	0	0	0	0
Transport Expenses	400	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	37	137	0	0	20	0	0	0	0	0	0	0	0
Contingencies	23	84	0	0	12	0	0	0	0	0	0	0	0
(2) Software	173	644	0	0	360	0	0	0	0	0	0	0	0
Basic software purchase	3211	6151	3785	2045	2948	608	0	0	0	0	0	0	0
Software development	873	1771	0	0	129	0	0	0	0	0	0	0	0
System transition	1356	2652	972	432	720	0	0	0	0	0	0	0	0
Testing	0	0	576	288	240	336	0	0	0	0	0	0	0
Translators fee	256	384	544	384	448	96	0	0	0	0	0	0	0
International travel	38	36	115	76	86	35	0	0	0	0	0	0	0
Lodging/perdiem allowance	88	146	437	293	317	86	0	0	0	0	0	0	0
Contingencies	600	1162	565	284	432	55	0	0	0	0	0	0	0
(3) Other Expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Preoperating expenses	37	64	64	38	28	12	0	0	0	0	0	0	0
Contingencies	4	6	6	4	3	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT	0	0	0	13797	15816	17782	18499	19244	20018	20826	21665	22538	23447
(1) Decrease of Float	0	0	0	13687	15695	17651	18358	19092	19855	20650	21475	22334	23227
(2) Abolition of Aviso	0	0	0	18	20	22	24	26	28	30	33	35	38
(3) Decrease of Manpower	0	0	0	92	101	109	117	126	135	146	157	169	182
NET BENEFIT FLOW	-5157	-13302	-3855	9056	9496	14193	15531	16276	17050	17858	18697	19570	20479

B/C RATIO: 2.23

EIRR = 38.09%

NPV AT CUT-OFF RATE OF 12%: 45886

NPV AT CUT-OFF RATE OF 12%: 45886

Table 14-5 ECONOMIC RATE OF RETURN (9/10): NET BENEFIT -10% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	5157	13302	3855	4741	6320	3589	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	5157	13302	3855	2087	3666	621	0	0	0	0	0	0	0
Hardware purchase	1905	7081	0	0	687	0	0	0	0	0	0	0	0
Auxiliary facilities	1272	6216	0	0	295	0	0	0	0	0	0	0	0
Transport expenses	400	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	37	137	0	0	20	0	0	0	0	0	0	0	0
Contingencies	23	84	0	0	12	0	0	0	0	0	0	0	0
(2) Software	173	644	0	0	360	0	0	0	0	0	0	0	0
Basic software purchase	3211	6151	3785	2045	2948	608	0	0	0	0	0	0	0
Software development	873	1771	0	0	129	0	0	0	0	0	0	0	0
System transition	1356	2652	972	432	720	0	0	0	0	0	0	0	0
Testing	0	0	576	288	240	336	0	0	0	0	0	0	0
Translators fee	0	0	576	288	576	0	0	0	0	0	0	0	0
International travel	256	384	544	384	448	96	0	0	0	0	0	0	0
Lodging/perdiem allowance	38	36	115	76	86	35	0	0	0	0	0	0	0
Contingencies	88	146	437	293	317	86	0	0	0	0	0	0	0
(3) Other Expenses	600	1162	565	284	432	55	0	0	0	0	0	0	0
Preoperating expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Contingencies	37	64	64	38	28	12	0	0	0	0	0	0	0
	4	6	6	4	3	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	10375	11892	13369	13909	14471	15054	15663	16296	16955	17640
(2) Abolition of Aviso	0	0	0	10265	11771	13238	13768	14319	14891	15487	16106	16751	17420
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
	0	0	0	92	101	109	117	126	135	146	157	169	182
NET BENEFIT FLOW	-5157	-13302	-3855	5634	5572	9780	10941	11503	12086	12695	13328	13987	14672

NPV AT CUT-OFF RATE OF 12% = 25278

B/C RATIO = 1.68

FIRR = 28.13%

Table 14-5 ECONOMIC RATE OF RETURN (10/10): NET BENEFIT -20% CASE

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(UNIT: 1,000 US\$)													
ECONOMIC COST													
1. Investment Cost	5157	13302	3855	4741	6320	3589	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	5157	13302	3855	2087	3666	621	0	0	0	0	0	0	0
Hardware purchase	1905	7081	0	0	687	0	0	0	0	0	0	0	0
Auxiliary facilities	1272	6216	0	0	295	0	0	0	0	0	0	0	0
Transport Expenses	400	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	37	137	0	0	20	0	0	0	0	0	0	0	0
Contingencies	23	84	0	0	12	0	0	0	0	0	0	0	0
(2) Software	173	644	0	0	360	0	0	0	0	0	0	0	0
Basic software purchase	3211	6151	3785	2045	2948	608	0	0	0	0	0	0	0
Software development	873	1771	0	0	129	0	0	0	0	0	0	0	0
System transition	1356	2652	972	432	720	0	0	0	0	0	0	0	0
Testing	0	0	576	288	240	336	0	0	0	0	0	0	0
Translators fee	256	384	544	384	448	96	0	0	0	0	0	0	0
International travel	38	36	115	76	86	35	0	0	0	0	0	0	0
Lodging/perdiem allowance	88	146	437	293	317	86	0	0	0	0	0	0	0
Contingencies	600	1162	565	284	432	55	0	0	0	0	0	0	0
(3) Other Expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Preoperating expenses	37	64	64	38	28	12	0	0	0	0	0	0	0
Contingencies	4	6	6	4	3	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT	0	0	0	9235	10584	11898	12379	12880	13400	13942	14507	15094	15705
(1) Decrease of Float	0	0	0	9125	10463	11767	12238	12728	13237	13766	14317	14890	15485
(2) Abolition of Avisa	0	0	0	18	20	22	24	26	28	30	33	35	38
(3) Decrease of Manpower	0	0	0	92	101	109	117	126	135	146	157	169	182
NET BENEFIT FLOW	-5157	-13302	-3855	4494	4264	8309	9411	9912	10432	10974	11539	12126	12737

NPV AT CUT-OFF-RATE OF 12% : 18409 B/C RATIO: 1.49 FIRR = 24.32%

**Table 14-6 ECONOMIC RATE OF RETURN (SUMMARY OF SENSITIVITY ANALYSIS)
AND RESULT OF INVESTMENT AND BENEFIT COMBINED ANALYSIS**

	-30 %	-20 %	-10 %	Base (0 %)	+10 %	+20 %
Investment						
EIRR(%)	42.38	38.16	34.65	31.66	29.08	26.81
NPV(\$000)	39,430	37,003	34,575	32,148	29,720	27,293
B/C Ratio	2.32	2.14	1.99	1.86	1.75	1.65
Net Benefit						
EIRR(%)	24.32	28.13	28.13	31.66	34.97	38.09
NPV(\$000)	18,409	25,278	25,278	32,148	39,017	45,886
B/C Ratio	1.49	1.68	1.68	1.86	2.05	2.23

Note: 12 % of Net Present Value (NPV) cut-off rate has been applied.

	INVESTMENT	+10%	+20%	+30%
BENEFIT				
-10%	EIRR(%) NPV(1000\$) B/C RATIO	25.70% 22,851 1.58	23.55% 20,424 1.49	21.65% 17,996 1.40
-20%	EIRR(%) NPV(1000\$) B/C RATIO	22.04% 15,982 1.40	20.04% 13,554 1.32	18.25% 11,127 1.25
-30%	EIRR(%) NPV(1000\$) B/C RATIO	18.05% 9,112 1.23	16.18% 6,695 1.16	14.52% 4,258 1.10

Table 14-6 ECONOMIC RATE OF RETURN (2/10): +10, -10% CASE

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(UNIT: 1,000 U.S\$)													
ECONOMIC COST													
1. Investment Cost	5673	14632	4241	4950	6687	3651	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	5673	14632	4241	2296	4033	683	0	0	0	0	0	0	0
Hardware purchase	2096	7789	0	0	756	0	0	0	0	0	0	0	0
Auxiliary facilities	1399	6838	0	0	325	0	0	0	0	0	0	0	0
Transport Expenses	440	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	41	151	0	0	22	0	0	0	0	0	0	0	0
Contingencies	190	708	0	0	396	0	0	0	0	0	0	0	0
(2) Software	3532	6766	4164	2250	3243	669	0	0	0	0	0	0	0
Basic software purchase	960	1948	0	0	142	0	0	0	0	0	0	0	0
Software development	1492	2917	1069	475	792	0	0	0	0	0	0	0	0
System transition	0	0	634	317	264	370	0	0	0	0	0	0	0
Testing	0	0	634	317	634	0	0	0	0	0	0	0	0
Translators fee	282	422	598	422	493	106	0	0	0	0	0	0	0
International travel	42	40	127	84	95	39	0	0	0	0	0	0	0
Lodging/perdiem allowance	97	161	481	322	349	95	0	0	0	0	0	0	0
Contingencies	660	1278	622	312	475	61	0	0	0	0	0	0	0
(3) Other Expenses	45	77	77	46	34	14	0	0	0	0	0	0	0
Preoperating expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Contingencies	4	7	7	4	3	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Finat	0	0	0	10375	11892	13369	13909	14471	15054	15663	16296	16955	17640
(2) Abolition of Aviso	0	0	0	10265	11771	13238	13768	14319	14891	15487	16106	16751	17420
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-5673	-14632	-4241	5426	5206	9718	10941	11503	12086	12695	13328	13987	14672

NPV AT CUT-OFF RATE OF 12% : 22851

B/C RATIO 1.58

EIRR = 25.70%

Table 14-6 ECONOMIC RATE OF RETURN (3/10): +10, -20% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	5673	14632	4241	4950	6687	3651	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	5673	14632	4241	2296	4033	683	0	0	0	0	0	0	0
Hardware purchase	2096	7789	0	0	756	0	0	0	0	0	0	0	0
Auxiliary facilities	1399	6838	0	0	325	0	0	0	0	0	0	0	0
Transport Expenses	440	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	41	151	0	22	13	0	0	0	0	0	0	0	0
Contingencies	25	92	0	0	0	0	0	0	0	0	0	0	0
(2) Software	190	708	0	396	0	0	0	0	0	0	0	0	0
Basic software purchase	3532	6766	4164	2250	3243	669	0	0	0	0	0	0	0
Software development	960	1948	0	0	142	0	0	0	0	0	0	0	0
System transition	1492	2917	1069	475	792	0	0	0	0	0	0	0	0
Testing	0	0	634	317	264	370	0	0	0	0	0	0	0
Translators fee	0	0	634	317	493	0	0	0	0	0	0	0	0
International travel	282	422	598	422	493	106	0	0	0	0	0	0	0
Lodging/perdiem allowance	42	40	127	84	95	39	0	0	0	0	0	0	0
Contingencies	97	161	481	322	349	95	0	0	0	0	0	0	0
(3) Other Expenses	660	1278	622	312	475	61	0	0	0	0	0	0	0
Preoperating expenses	45	77	77	46	34	14	0	0	0	0	0	0	0
Contingencies	41	70	70	42	31	13	0	0	0	0	0	0	0
	4	7	7	4	3	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT	0	0	0	9235	10584	11898	12379	12880	13400	13942	14507	15094	15705
(1) Decrease of Float	0	0	0	9125	10463	11767	12238	12728	13237	13766	14317	14890	15485
(2) Abolition of Aviso	0	0	0	18	20	22	24	26	28	30	33	35	38
(3) Decrease of Manpower	0	0	0	92	101	109	117	126	135	146	157	169	182
NET BENEFIT FLOW	-5673	-14632	-4241	4285	3898	8247	9411	9912	10432	10974	11539	12126	12737

NPV AT CUT-OFF RATE OF 12% : 15982 B/C RATIO : 1.40 EIRR = 22.04%

Table 14-6 ECONOMIC RATE OF RETURN (4/10): +10, -30% CASE

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	5673	14632	4241	4950	6687	3651	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	5673	14632	4241	2296	4033	683	0	0	0	0	0	0	0
Hardware purchase	2096	7789	0	0	756	0	0	0	0	0	0	0	0
Auxiliary facilities	1399	6838	0	0	325	0	0	0	0	0	0	0	0
Transport Expenses	440	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	41	151	0	0	22	0	0	0	0	0	0	0	0
Contingencies	25	92	0	0	13	0	0	0	0	0	0	0	0
(2) Software	190	708	0	0	396	0	0	0	0	0	0	0	0
Basic software purchase	3532	6766	4164	2250	3243	669	0	0	0	0	0	0	0
Software development	960	1948	0	0	142	0	0	0	0	0	0	0	0
System transition	1492	2917	1069	475	792	0	0	0	0	0	0	0	0
Testing	0	0	634	317	264	370	0	0	0	0	0	0	0
Translators fee	0	0	634	317	634	0	0	0	0	0	0	0	0
International travel	282	422	598	422	493	106	0	0	0	0	0	0	0
Lodging/perdiem allowance	42	40	127	84	95	39	0	0	0	0	0	0	0
Contingencies	660	1278	622	312	475	61	0	0	0	0	0	0	0
(3) Other Expenses	45	77	77	46	34	14	0	0	0	0	0	0	0
Preoperating expenses	41	70	70	42	31	13	0	0	0	0	0	0	0
Contingencies	4	7	7	4	3	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Fiat	0	0	0	8094	9276	10427	10850	11289	11745	12222	12717	13232	13769
(2) Abolition of Aviso	0	0	0	7984	9155	10296	10709	11137	11582	12046	12527	13028	13549
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-5673	-14632	-4241	3144	2590	6776	7882	8321	8777	9254	9749	10264	10801

EIRR = 18.05%

B/C RATIO 1.23

9112

NPV AT CUT-OFF RATE OF 12% :

Table 14-6 ECONOMIC RATE OF RETURN (5/10): +20, -30% CASE

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(UNIT: 1,000 US\$)													
ECONOMIC COST													
1) Investment Cost	6188	15962	4626	5158	7653	3713	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	6188	15962	4626	2504	4399	745	0	0	0	0	0	0	0
Hardware purchase	2286	8497	0	824	0	0	0	0	0	0	0	0	0
Auxiliary facilities	1526	7459	0	0	354	0	0	0	0	0	0	0	0
Transport Expenses	480	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	44	164	0	0	24	0	0	0	0	0	0	0	0
Contingencies	28	101	0	14	0	0	0	0	0	0	0	0	0
(2) Software	208	773	0	0	432	730	0	0	0	0	0	0	0
Basic software purchase	3853	7381	4542	2454	3538	0	0	0	0	0	0	0	0
Software development	1048	2125	0	0	155	0	0	0	0	0	0	0	0
System transition	1627	3182	1166	518	864	0	0	0	0	0	0	0	0
Testing	0	0	691	346	288	403	0	0	0	0	0	0	0
Translators fee	307	461	691	346	691	0	0	0	0	0	0	0	0
International travel	46	43	138	91	538	115	0	0	0	0	0	0	0
Lodging/perdiem allowance	106	175	524	352	380	103	0	0	0	0	0	0	0
Contingencies	720	1394	678	341	518	66	0	0	0	0	0	0	0
(3) Other Expenses	49	84	84	50	37	16	0	0	0	0	0	0	0
Preoperating expenses	44	77	77	46	34	14	0	0	0	0	0	0	0
Contingencies	5	7	7	4	4	1	0	0	0	0	0	0	0
2) Operating Costs													
(1) Variable Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
Electric power charge	0	0	0	26	26	43	43	43	43	43	43	43	43
Telecom. line charge	0	0	0	13	13	14	14	14	14	14	14	14	14
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	8094	9276	10427	10850	11289	11745	12222	12717	13232	13769
(2) Abolition of Aviso	0	0	0	7984	9155	10296	10709	11137	11582	12046	12527	13028	13549
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-6188	-15962	-4626	2936	2223	6714	7882	8321	8777	9254	9749	10264	10801

NPV AT CUT-OFF RATE OF 12% : 66853

B/C RATIO 1.16

EIRR = 16.18%

Table 14-6 ECONOMIC RATE OF RETURN (6/10): +20, -20% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	6188	15962	4626	5158	7053	3713	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	6188	15962	4626	2504	4399	745	0	0	0	0	0	0	0
Hardware purchase	2286	8497	0	0	824	0	0	0	0	0	0	0	0
Auxiliary facilities	1526	7459	0	0	354	0	0	0	0	0	0	0	0
Transport Expenses	480	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	44	164	0	0	24	0	0	0	0	0	0	0	0
Contingencies	28	101	0	0	14	0	0	0	0	0	0	0	0
	208	773	0	0	432	0	0	0	0	0	0	0	0
(2) Software	3853	7381	4542	2454	3538	730	0	0	0	0	0	0	0
Basic software purchase	1048	2125	0	518	864	0	0	0	0	0	0	0	0
Software development	1627	3182	1166	346	288	403	0	0	0	0	0	0	0
System transition	0	0	691	346	691	0	0	0	0	0	0	0	0
Testing	0	0	0	461	538	115	0	0	0	0	0	0	0
Translators fee	307	461	653	661	538	115	0	0	0	0	0	0	0
International travel	46	43	138	91	103	42	0	0	0	0	0	0	0
Lodging/perdiem allowance	106	175	524	352	380	103	0	0	0	0	0	0	0
Contingencies	720	1394	678	341	518	66	0	0	0	0	0	0	0
(3) Other Expenses	49	84	84	50	37	16	0	0	0	0	0	0	0
Preoperating expenses	44	77	77	46	34	14	0	0	0	0	0	0	0
Contingencies	5	7	7	5	4	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT	0	0	0	9235	10584	11898	12379	12880	13400	13942	14507	15094	15705
(1) Decrease of Float	0	0	0	9125	10463	11767	12238	12728	13237	13766	14317	14890	15485
(2) Abolition of Aviso	0	0	0	18	20	22	24	26	28	30	33	35	38
(3) Decrease of Manpower	0	0	0	92	101	109	117	126	135	146	157	169	182
NET BENEFIT FLOW	-6188	-15962	-4626	4076	3531	8185	9411	9912	10432	10974	11539	12126	12737

EIRR = 20.04%

B/C RATIO 1.32

13554

NPV AT CUT-OFF RATE OF 12% :

Table 14-6 ECONOMIC RATE OF RETURN (7/10): +20, -10% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	6188	15962	4626	5158	7053	3713	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	6188	15962	4626	2504	4399	745	0	0	0	0	0	0	0
Hardware purchase	2286	8497	0	0	824	0	0	0	0	0	0	0	0
Auxiliary facilities	1526	7459	0	0	354	0	0	0	0	0	0	0	0
Transport Expenses	480	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	44	164	0	0	24	0	0	0	0	0	0	0	0
Contingencies	28	101	0	0	14	0	0	0	0	0	0	0	0
(2) Software	208	773	0	0	432	0	0	0	0	0	0	0	0
Basic software purchase	3853	7381	4542	2454	3538	730	0	0	0	0	0	0	0
Software development	1048	2125	0	0	155	0	0	0	0	0	0	0	0
System transition	1627	3182	1166	518	864	0	0	0	0	0	0	0	0
Testing	0	0	691	346	288	403	0	0	0	0	0	0	0
Translators fee	307	461	691	346	691	0	0	0	0	0	0	0	0
International travel	46	43	138	91	103	42	0	0	0	0	0	0	0
Lodging/perdiem allowance	106	175	524	352	380	103	0	0	0	0	0	0	0
Contingencies	720	1394	678	341	518	66	0	0	0	0	0	0	0
(3) Other Expenses	49	84	84	50	37	16	0	0	0	0	0	0	0
Preoperating expenses	44	77	77	46	34	14	0	0	0	0	0	0	0
Contingencies	5	7	7	5	4	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	0	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	0	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	0	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	0	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	0	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	0	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	0	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	0	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	0	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	0	10375	11892	13369	13909	14471	15054	15663	16296	16955
(2) Abolition of Aviso	0	0	0	0	10265	11771	13238	13768	14319	14891	15487	16106	16751
(3) Decrease of Manpower	0	0	0	0	18	20	22	24	26	28	30	33	35
NET BENEFIT FLOW	-6188	-15962	-4626	-5217	4839	9656	10941	11503	12086	12695	13328	13987	14672

NPV AT CUT-OFF RATE OF 12% : 20424

B/C RATIO : 1.49

EIRR = 23.55%

Table 14-6 ECONOMIC RATE OF RETURN (8/10): +30, -10% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	6704	17293	5012	5367	7420	3775	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	6704	17293	5012	2713	4766	807	0	0	0	0	0	0	0
Hardware purchase	2477	9205	0	893	0	0	0	0	0	0	0	0	0
Auxiliary facilities	1654	8081	0	0	384	0	0	0	0	0	0	0	0
Transport Expenses	520	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	48	178	0	0	26	0	0	0	0	0	0	0	0
Contingencies	30	109	0	0	16	0	0	0	0	0	0	0	0
(2) Software	225	837	0	0	468	0	0	0	0	0	0	0	0
Basic software purchase	4174	7996	4921	2659	3832	790	0	0	0	0	0	0	0
Software development	1135	2302	0	0	168	0	0	0	0	0	0	0	0
System transition	1763	3448	1264	562	936	0	0	0	0	0	0	0	0
Testing	0	0	749	374	312	437	0	0	0	0	0	0	0
Translators fee	333	499	707	499	582	125	0	0	0	0	0	0	0
International travel	49	47	150	99	112	46	0	0	0	0	0	0	0
Lodging/perdium allowance	114	190	568	381	412	112	0	0	0	0	0	0	0
Contingencies	780	1511	735	369	562	72	0	0	0	0	0	0	0
(3) Other Expenses	53	91	91	55	40	17	0	0	0	0	0	0	0
Preoperating expenses	48	83	83	49	36	16	0	0	0	0	0	0	0
Contingencies	5	8	8	5	4	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	10375	11892	13369	13909	14471	15054	15663	16296	16955	17640
(2) Abolition of Aviso	0	0	0	10265	11771	13238	13768	14319	14891	15487	16106	16751	17420
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-6704	-17293	-5012	5008	4472	9594	10941	11503	12086	12695	13328	13987	14672

EIRR = 21.65%

B/C RATIO 1.40

NPV AT CUT-OFF RATE OF 12% 17996

NPV AT CUT-OFF RATE OF 12% -5012

Table 14-6 ECONOMIC RATE OF RETURN (9/10): +30, -20% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	6704	17293	5012	5367	7420	3775	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	6704	17293	5012	2713	4766	807	0	0	0	0	0	0	0
Hardware purchase	2477	9205	0	0	893	0	0	0	0	0	0	0	0
Auxiliary facilities	1654	8081	0	0	384	0	0	0	0	0	0	0	0
Transport Expenses	520	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	48	178	0	0	26	0	0	0	0	0	0	0	0
Contingencies	30	109	0	0	16	0	0	0	0	0	0	0	0
(2) Software	225	837	0	0	468	0	0	0	0	0	0	0	0
Basic software purchase	4174	7996	4921	2659	3832	790	0	0	0	0	0	0	0
Software development	1135	2302	0	0	168	0	0	0	0	0	0	0	0
System transition	1763	3448	1264	562	936	0	0	0	0	0	0	0	0
Testing	0	0	749	374	312	437	0	0	0	0	0	0	0
Translators fee	333	499	707	499	749	125	0	0	0	0	0	0	0
International travel	49	47	150	99	112	46	0	0	0	0	0	0	0
Lodging/perdiem allowance	114	190	568	381	412	112	0	0	0	0	0	0	0
Contingencies	780	1511	735	369	562	72	0	0	0	0	0	0	0
(3) Other Expenses	53	91	91	55	40	17	0	0	0	0	0	0	0
Preoperating expenses	48	83	83	49	36	16	0	0	0	0	0	0	0
Contingencies	5	8	8	5	4	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Fuel	0	0	0	9235	10584	11898	12379	12880	13400	13942	14507	15094	15705
(2) Abolition of Aviso	0	0	0	9125	10463	11767	12238	12728	13237	13766	14317	14890	15485
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW	-6704	-17293	-5012	3868	3164	8123	9411	9912	10432	10974	11539	12126	12737

NPV AT CUT-OFF RATE OF 12% : 11127

B/C RATIO : 1.25

EIRR = 18.25%

Table 14-6 ECONOMIC RATE OF RETURN (10/10): +30, -30% CASE

(UNIT: 1,000 US\$)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ECONOMIC COST													
1. Investment Cost	6704	17293	5012	5367	7420	3775	2968	2968	2968	2968	2968	2968	2968
(1) Facilities	6704	17293	5012	2713	4766	807	0	0	0	0	0	0	0
Hardware purchase	2477	9205	0	0	893	0	0	0	0	0	0	0	0
Auxiliary facilities	1654	8081	0	0	384	0	0	0	0	0	0	0	0
Transport Expenses	520	0	0	0	0	0	0	0	0	0	0	0	0
Installation costs	48	178	0	0	26	0	0	0	0	0	0	0	0
Contingencies	30	109	0	0	16	0	0	0	0	0	0	0	0
(2) Software	225	837	0	0	468	0	0	0	0	0	0	0	0
Basic software purchase	4174	7996	4921	2659	3832	790	0	0	0	0	0	0	0
Software development	1135	2302	0	0	168	0	0	0	0	0	0	0	0
System transition	1763	3448	1264	562	936	0	0	0	0	0	0	0	0
Testing	0	0	749	374	312	437	0	0	0	0	0	0	0
Translators fee	333	499	707	499	582	125	0	0	0	0	0	0	0
International travel	49	47	150	99	112	46	0	0	0	0	0	0	0
Lodging/perdiem allowance	114	190	568	381	412	112	0	0	0	0	0	0	0
Contingencies	780	1511	735	369	562	72	0	0	0	0	0	0	0
(3) Other Expenses	53	91	91	55	40	17	0	0	0	0	0	0	0
Preoperating expenses	48	83	83	49	36	16	0	0	0	0	0	0	0
Contingencies	5	8	8	5	4	1	0	0	0	0	0	0	0
2. Operating Costs	0	0	0	2654	2654	2968	2968	2968	2968	2968	2968	2968	2968
(1) Variable Costs	0	0	0	26	26	43	43	43	43	43	43	43	43
Electric power charge	0	0	0	13	13	14	14	14	14	14	14	14	14
Telecom. line charge	0	0	0	13	13	29	29	29	29	29	29	29	29
(2) Fixed Costs	0	0	0	2628	2628	2925	2925	2925	2925	2925	2925	2925	2925
Direct labor costs	0	0	0	49	49	49	49	49	49	49	49	49	49
General overhead	0	0	0	31	31	31	31	31	31	31	31	31	31
Maintenance cost	0	0	0	2528	2528	2825	2825	2825	2825	2825	2825	2825	2825
Office rental	0	0	0	20	20	20	20	20	20	20	20	20	20
ECONOMIC BENEFIT													
(1) Decrease of Float	0	0	0	8094	9276	10427	10850	11289	11745	12222	12717	13232	13769
(2) Abolition of Aviso	0	0	0	7984	9155	10296	10709	11137	11582	12046	12527	13028	13549
(3) Decrease of Manpower	0	0	0	18	20	22	24	26	28	30	33	35	38
NET BENEFIT FLOW													
	-6704	-17293	-5012	2727	1857	6652	7882	8321	8777	9254	9749	10264	10801

NPV AT CUT-OFF RATE OF 12% :

4758

B/C RATIO

1.10

EIRR =

14.52%

Table 14-7 INCOME STATEMENTS (1/2): CASE I

PAGE 1

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 INCOME STATEMENTS
 - BASE CASE (1) - (US\$ 1000)

YEAR	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
OPERATING INCOME	0.	0.	0.	3535.	3796.	4016.	4177.	4344.	4517.	4698.
TRANSFER REVENUE	0.	0.	0.	3327.	3534.	3684.	3832.	3985.	4144.	4310.
PROFIT FROM NBK	0.	0.	0.	208.	262.	332.	345.	359.	373.	388.
OPERATING COST	0.	0.	0.	4987.	4987.	5301.	5934.	5934.	5880.	5880.
VARIABLE COST	0.	0.	0.	26.	26.	43.	43.	43.	43.	43.
DIRECT FIXED COST	0.	0.	0.	2680.	2680.	2977.	2977.	2977.	2977.	2977.
DEPRECIATION AND AMORTIZATION	0.	0.	0.	2281.	2281.	2281.	2914.	2914.	2860.	2860.
OPERATING PROFIT	0.	0.	0.	-1452.	-1192.	-1285.	-1757.	-1590.	-1363.	-1182.
NON-OPERATING EXPENSES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	0.	0.	0.	-1452.	-1192.	-1285.	-1757.	-1590.	-1363.	-1182.
INCOME TAX	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) AFTER TAX	0.	0.	0.	-1452.	-1192.	-1285.	-1757.	-1590.	-1363.	-1182.
DIVIDENDS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RETAINED EARNINGS	0.	0.	0.	-1452.	-1192.	-1285.	-1757.	-1590.	-1363.	-1182.

Table 14-7 INCOME STATEMENTS (2/2): CASE I

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 INCOME STATEMENTS
 - BASE CASE (1) - (US\$ 1000)

YEAR	2005	2006	2007
OPERATING INCOME	4886.	5082.	5285.
TRANSFER REVENUE	4482.	4662.	4848.
PROFIT FROM NBK	404.	420.	437.
OPERATING COST	5880.	5854.	5854.
VARIABLE COST	43.	43.	43.
DIRECT FIXED COST	2977.	2977.	2977.
DEPRECIATION AND AMORTIZATION	2860.	2834.	2834.
OPERATING PROFIT	-994.	-773.	-570.
NON-OPERATING EXPENSES	0.	0.	0.
INTEREST ON LONG TERM DEBT	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	-994.	-773.	-570.
INCOME TAX	0.	0.	0.
NET PROFIT OR (LOSS) AFTER TAX	-994.	-773.	-570.
DIVIDENDS	0.	0.	0.
RETAINED EARNINGS	-994.	-773.	-570.

Table 14-8 FUNDS FLOW STATEMENTS (1/2): CASE I

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 FUNDS FLOW STATEMENTS
 - BASE CASE (1) - (US\$ 1000)

PAGE 1

YEAR	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
SOURCE OF FUNDS										
CASH GENERATED FROM OPERATION	5199.	13392.	3954.	2980.	4494.	1638.	1157.	1324.	1497.	1678.
PROFIT AFT. TAX, BFR JNT.	0.	0.	0.	-1452.	-1192.	-1285.	-1757.	-1590.	-1363.	-1182.
DEPRECIATION AND AMORTIZATION	0.	0.	0.	2281.	2281.	2281.	2914.	2914.	2860.	2860.
FINANCIAL RESOURCES	5199.	13392.	3954.	2151.	3404.	642.	0.	0.	0.	0.
SHARE CAPITAL	5199.	13392.	3954.	2151.	3404.	642.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
USES OF FUNDS										
FIXED CAPITAL EXPENDITURE	5199.	13392.	3954.	2151.	3404.	642.	0.	0.	0.	0.
NON-DEPRECIABLE ASSETS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIABLE FIXED ASSETS	5199.	13392.	3954.	2151.	3404.	642.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CHANGE IN WORKING CAPITAL	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
REPAYMENT OF LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	0.	-0.	-0.	829.	1090.	996.	1157.	1324.	1497.	1678.
BEGINNING CASH BALANCE	0.	0.	0.	0.	829.	1919.	2915.	4072.	5396.	6894.
ENDING CASH BALANCE	0.	0.	0.	829.	1919.	2915.	4072.	5396.	6894.	8572.

Table 14-8 FUNDS FLOW STATEMENTS (2/2): CASE I

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 FUNDS FLOW STATEMENTS
 - BASE CASE (1) - (US\$ 1000)

YEAR	2005	2006	2007
SOURCE OF FUNDS	1866	2062	2265
CASH GENERATED FROM OPERATION	1866	2062	2265
PROFIT AFT. TAX, BFR INT.	-994	-773	-570
DEPRECIATION AND AMORTIZATION	2860	2834	2834
FINANCIAL RESOURCES	0	0	0
SHARE CAPITAL	0	0	0
LONG TERM DEBT	0	0	0
SHORT TERM DEBT	0	0	0
USES OF FUNDS	0	0	0
FIXED CAPITAL EXPENDITURE	0	0	0
NON-DEPRECIABLE ASSETS	0	0	0
DEPRECIABLE FIXED ASSETS	0	0	0
INTEREST DURING CONSTRUCTION	0	0	0
CHANGE IN WORKING CAPITAL	0	0	0
DEBT SERVICES	0	0	0
REPAYMENT OF LONG TERM DEBT	0	0	0
REPAYMENT OF SHORT TERM DEBT	0	0	0
INTEREST ON LONG TERM DEBT	0	0	0
INTEREST ON SHORT TERM DEBT	0	0	0
DIVIDENDS	0	0	0
CASH INCREASE OR (DECREASE)	1866	2062	2265
BEGINNING CASH BALANCE	8572	10438	12500
ENDING CASH BALANCE	10438	12500	14764

Table 14-9 BALANCE SHEET (1/2): CASE I

PAGE 1

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 BALANCE SHEET
 - BASE CASE (1) - (US\$ 1000)

YEAR	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
ASSETS										
CURRENT ASSETS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OPERATING CASH	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ACCOUNT RECEIVABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INVENTORIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ACC. EXCESS CASH	0.	0.	0.	329.	1919.	2915.	4072.	5396.	6894.	8572.
NET FIXED ASSETS	5199.	18591.	22545.	22415.	23537.	21898.	18984.	16070.	13210.	10349.
INVESTMENT	5199.	18591.	22545.	24696.	28100.	28742.	28742.	28742.	28742.	28742.
NON-DEPR. ASSETS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIABLE ASSETS	5199.	18591.	22545.	24696.	28100.	28742.	28742.	28742.	28742.	28742.
AMORTIZATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LESS: ACC. DEPRECIATION	0.	0.	0.	2281.	4563.	6844.	9758.	12672.	15532.	18398.
LIABILITIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CURRENT LIABILITIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ACCOUNT PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CURRENT PORTION OF L/T DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT BALANCE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OTHER FIXED LIABILITIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
STOCK HOLDERS EQUITY	5199.	18591.	22545.	23244.	25456.	24813.	23056.	21466.	20103.	18921.
SHARE CAPITAL	5199.	18591.	22545.	24696.	28100.	28742.	28742.	28742.	28742.	28742.
ACC. RETAINED EARNINGS	0.	0.	0.	-1452.	-2643.	-3929.	-5636.	-7276.	-8639.	-9821.
LIABILITIES & S/H EQUITY	5199.	18591.	22545.	23244.	25456.	24813.	23056.	21466.	20103.	18921.

Table 14-9 BALANCE SHEET (2/2): CASE I

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 BALANCE SHEET
 - BASE CASE (1) - (US\$ 1000)

YEAR	2005	2006	2007
ASSETS	17927.	17154.	16585.
CURRENT ASSETS	0.	0.	0.
OPERATING CASH	0.	0.	0.
ACCOUNT RECEIVABLE	0.	0.	0.
INVENTORIES	0.	0.	0.
ACC. EXCESS CASH	10436.	12500.	14764.
NET FIXED ASSETS	7489.	4655.	1820.
INVESTMENT	28742.	28742.	28742.
NON-DEPR. ASSETS	0.	0.	0.
DEPRECIABLE ASSETS	28742.	28742.	28742.
AMORTIZATION	0.	0.	0.
LESS: ACC. DEPRECIATION	21253.	24087.	26922.
LIABILITIES	0.	0.	0.
CURRENT LIABILITIES	0.	0.	0.
ACCOUNT PAYABLE	0.	0.	0.
CURRENT PORTION OF L/T DEBT	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.
FIXED LIABILITIES	0.	0.	0.
LONG TERM DEBT BALANCE	0.	0.	0.
OTHER FIXED LIABILITIES	0.	0.	0.
STOCK HOLDERS EQUITY	17927.	17154.	16585.
SHARE CAPITAL	28742.	28742.	28742.
ACC. RETAINED EARNINGS	-10815.	-11588.	-12157.
LIABILITIES & S/H EQUITY	17927.	17154.	16585.

Table 14-10 RETURN ON INVESTMENT: CASE I

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 RETURN ON INVESTMENT (IN '94 FIXED PRICE)
 - BASE CASE (1) - (US\$ 1000)

YEAR	FIXED CAPITAL EXPEND.	CHANGE IN WORKING CAPITAL	GROSS CAPITAL EXPENDITURE	OPERATING PROFIT	DEPRECIATION	GROSS CASH IN-FLOW	INCOME TAX	BFR-TAX NET IN-FLOW (2)-(1)	AFT-TAX NET IN-FLOW (4)-(3)
1995	5199.	0.	5199.	0.	0.	0.	0.	-5199.	-5199.
1996	13392.	0.	13392.	0.	0.	0.	0.	-13392.	-13392.
1997	3954.	0.	3954.	0.	0.	0.	0.	-3954.	-3954.
1998	2151.	0.	2151.	-1452.	2281.	829.	0.	-1322.	-1322.
1999	3404.	0.	3404.	-1192.	2281.	1090.	0.	-2314.	-2314.
2000	642.	0.	642.	-1285.	2281.	996.	0.	354.	354.
2001	0.	0.	0.	-1757.	2914.	1157.	0.	1157.	1157.
2002	0.	0.	0.	-1590.	2914.	1324.	0.	1324.	1324.
2003	0.	0.	0.	-1363.	2860.	1497.	0.	1497.	1497.
2004	0.	0.	0.	-1182.	2860.	1678.	0.	1678.	1678.
2005	0.	0.	0.	-994.	2860.	1866.	0.	1866.	1866.
2006	0.	0.	0.	-773.	2834.	2062.	0.	2062.	2062.
2007	-1820.	0.	-1820.	-570.	2834.	2265.	0.	4085.	4085.
	26922.	0.	26922.	-12157.	26922.	14764.	0.	-12157.	-12157.

INTERNAL RATE OF RETURN

ON (4) BFR-TAX NET IN-FLOW (2)-(1) -7.12 PER CENT

ON (5) AFT-TAX NET IN-FLOW (4)-(3) -7.12 PER CENT

Table 14-11 INCOME STATEMENTS (1/2): CASE II

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
INCOME STATEMENTS
- BASE CASE (II) - (US\$ 1000)

PAGE 1

YEAR	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
OPERATING INCOME	0.	0.	0.	3535.	3796.	4016.	4177.	4344.	4517.	4698.
TRANSFER REVENUE	0.	0.	0.	3327.	3534.	3684.	3832.	3985.	4144.	4310.
PROFIT FROM NBK	0.	0.	0.	208.	262.	332.	345.	359.	373.	388.
OPERATING COST	0.	0.	0.	5135.	5135.	5449.	6127.	6127.	5926.	5926.
VARIABLE COST	0.	0.	0.	26.	26.	43.	43.	43.	43.	43.
DIRECT FIXED COST	0.	0.	0.	2680.	2680.	2977.	2977.	2977.	2977.	2977.
DEPRECIATION AND AMORTIZATION	0.	0.	0.	2429.	2429.	2429.	3107.	3107.	2906.	2906.
OPERATING PROFIT	0.	0.	0.	-1599.	-1339.	-1433.	-1950.	-1783.	-1408.	-1228.
NON-OPERATING EXPENSES:	0.	0.	0.	489.	489.	489.	624.	624.	624.	624.
INTEREST ON LONG TERM DEBT	0.	0.	0.	489.	489.	489.	624.	624.	624.	624.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	0.	0.	0.	-2088.	-1828.	-1922.	-2574.	-2407.	-2032.	-1852.
INCOME TAX	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) AFTER TAX	0.	0.	0.	-2088.	-1828.	-1922.	-2574.	-2407.	-2032.	-1852.
DIVIDENDS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
RETAINED EARNINGS	0.	0.	0.	-2088.	-1828.	-1922.	-2574.	-2407.	-2032.	-1852.

Table 14-11 INCOME STATEMENTS (2/2): CASE II

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 INCOME STATEMENTS
 - BASE CASE (11) - (US\$ 1000)

YEAR	2005	2006	2007
OPERATING INCOME	4886.	5082.	5285.
TRANSFER REVENUE	4482.	4662.	4848.
PROFIT FROM NBK	404.	420.	437.
OPERATING COST	5926.	5854.	5854.
VARIABLE COST	43.	43.	43.
DIRECT FIXED COST	2977.	2977.	2977.
DEPRECIATION AND AMORTIZATION	2906.	2834.	2834.
OPERATING PROFIT	-1039.	-773.	-570.
NON-OPERATING EXPENSES 1	624.	599.	575.
INTEREST ON LONG TERM DEBT	624.	599.	575.
INTEREST ON SHORT TERM DEBT	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	-1663.	-1372.	-1145.
INCOME TAX	0.	0.	0.
NET PROFIT OR (LOSS) AFTER TAX	-1663.	-1372.	-1145.
DIVIDENDS	0.	0.	0.
RETAINED EARNINGS	-1663.	-1372.	-1145.

Table 14-12 FUNDS FLOW STATEMENTS (1/2): CASE II

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
FUNDS FLOW STATEMENTS
-- BASE CASE (II) --
(US\$ 1000)

PAGE 1

YEAR	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
SOURCE OF FUNDS	5254.	13642.	4386.	3004.	4575.	1762.	1157.	1324.	1497.	1678.
CASH GENERATED FROM OPERATION	0.	0.	0.	829.	1090.	996.	1157.	1324.	1497.	1678.
PROFIT AFT. TAX, BFR INT.	0.	0.	0.	-1599.	-1339.	-1433.	-1950.	-1783.	-1408.	-1228.
DEPRECIATION AND AMORTIZATION	0.	0.	0.	2429.	2429.	2429.	3107.	3107.	2906.	2906.
FINANCIAL RESOURCES	5254.	13642.	4386.	2174.	3485.	766.	0.	0.	0.	0.
SHARE CAPITAL	1576.	4099.	1316.	652.	1045.	230.	0.	0.	0.	0.
LONG TERM DEBT	3678.	9549.	3070.	1522.	2439.	536.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
USES OF FUNDS	5254.	13642.	4386.	2663.	3974.	1255.	624.	624.	624.	624.
FIXED CAPITAL EXPENDITURE	5254.	13642.	4386.	2174.	3485.	766.	0.	0.	0.	0.
NON-DEPRECIABLE ASSETS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIABLE FIXED ASSETS	5199.	13392.	3954.	2151.	3404.	642.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	55.	250.	432.	23.	81.	124.	0.	0.	0.	0.
CHANGE IN WORKING CAPITAL	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	0.	0.	0.	489.	489.	489.	624.	624.	624.	624.
REPAYMENT OF LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	0.	0.	0.	489.	489.	489.	624.	624.	624.	624.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	0.	0.	-0.	341.	601.	507.	533.	700.	874.	1054.
BEGINNING CASH BALANCE	0.	0.	0.	-0.	341.	941.	1449.	1982.	2682.	3555.
ENDING CASH BALANCE	0.	0.	-0.	341.	941.	1449.	1982.	2682.	3555.	4610.

Table 14-12 FUNDS FLOW STATEMENTS (2/2): CASE II

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 FUNDS FLOW STATEMENTS
 - BASE CASE (11) - (US\$ 1000)

YEAR	2005	2006	2007
SOURCE OF FUNDS			
CASH GENERATED FROM OPERATION	1866.	2062.	2265.
PROFIT AFT. TAX, BFR INT.			
DEPRECIATION AND AMORTIZATION	-1039.	-773.	-570.
FINANCIAL RESOURCES	2906.	2834.	2834.
SHARE CAPITAL	0.	0.	0.
LONG TERM DEBT	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.
USES OF FUNDS	1439.	1414.	1390.
FIXED CAPITAL EXPENDITURE	0.	0.	0.
NON-DEPRECIABLE ASSETS	0.	0.	0.
DEPRECIABLE FIXED ASSETS	0.	0.	0.
INTEREST DURING CONSTRUCTION	0.	0.	0.
CHANGE IN WORKING CAPITAL	0.	0.	0.
DEBT SERVICES	1439.	1414.	1390.
REPAYMENT OF LONG TERM DEBT	815.	815.	815.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.
INTEREST ON LONG TERM DEBT	624.	599.	575.
INTEREST ON SHORT TERM DEBT	0.	0.	0.
DIVIDENDS	0.	0.	0.
CASH INCREASE OR (DECREASE)	428.	647.	875.
BEGINNING CASH BALANCE	4610.	5037.	5684.
ENDING CASH BALANCE	5037.	5684.	6559.

Table 14-13 BALANCE SHEET (1/2): CASE II

		*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***								PAGE 1	
		BALANCE SHEET									
		- BASE CASE (1) - (US\$ 1000)									
YEAR		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
ASSETS		5254.	18896.	23282.	23368.	25025.	23869.	21295.	18888.	16856.	15005.
	CURRENT ASSETS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	OPERATING CASH	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	ACCOUNT RECEIVABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	INVENTORIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	ACC. EXCESS CASH	0.	0.	-0.	341.	941.	1449.	1982.	2682.	3555.	4610.
	NET FIXED ASSETS	5254.	18896.	23282.	23027.	24083.	22421.	19314.	16207.	13301.	10395.
	INVESTMENT	5254.	18896.	23282.	25456.	28941.	29707.	29707.	29707.	29707.	29707.
	NON-DEPR. ASSETS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	DEPRECIABLE ASSETS	5199.	18591.	22545.	24696.	28100.	28742.	28742.	28742.	28742.	28742.
	AMORTIZATION	55.	305.	737.	760.	841.	965.	965.	965.	965.	965.
	LESS: ACC. DEPRECIATION	0.	0.	0.	2429.	4858.	7286.	10393.	13500.	16406.	19312.
LIABILITIES		3678.	13227.	16297.	17819.	20259.	20795.	20795.	20795.	20795.	20795.
	CURRENT LIABILITIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	815.
	ACCOUNT PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	CURRENT PORTION OF L/T DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	815.
	SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	FIXED LIABILITIES	3678.	13227.	16297.	17819.	20259.	20795.	20795.	20795.	20795.	19980.
	LONG TERM DEBT BALANCE	3678.	13227.	16297.	17819.	20259.	20795.	20795.	20795.	20795.	19980.
	OTHER FIXED LIABILITIES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	STOCK HOLDERS EQUITY	1576.	5669.	6985.	5549.	4766.	3074.	500.	-1907.	-3939.	-5790.
	SHARE CAPITAL	1576.	5669.	6985.	7637.	9682.	8912.	8912.	8912.	8912.	8912.
	ACC. RETAINED EARNINGS	0.	0.	0.	-2088.	-3916.	-5838.	-6412.	-10819.	-12651.	-14702.
	LIABILITIES & S/H EQUITY	5254.	18896.	23282.	23368.	25025.	23869.	21295.	18888.	16856.	15005.

Table 14-13 BALANCE SHEET (2/2): CASE II

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 BALANCE SHEET
 - BASE CASE (1) - (US\$ 1000)

YEAR	2005	2006	2007
ASSETS	12526.	10339.	8380.
CURRENT ASSETS	0.	0.	0.
OPERATING CASH	0.	0.	0.
ACCOUNT RECEIVABLE	0.	0.	0.
INVENTORIES	0.	0.	0.
ACC. EXCESS CASH	5037.	5684.	6559.
NET FIXED ASSETS	7489.	4655.	1620.
INVESTMENT	29707.	29707.	29707.
NON-DEPR. ASSETS	0.	0.	0.
DEPRECIABLE ASSETS	28742.	28742.	28742.
AMORTIZATION	965.	965.	965.
LESS: ACC. DEPRECIATION	22218.	25052.	27887.
LIABILITIES	19980.	19165.	18350.
CURRENT LIABILITIES	815.	815.	1040.
ACCOUNT PAYABLE	0.	0.	0.
CURRENT PORTION OF L/T DEBT	815.	815.	1040.
SHORT TERM DEBT	0.	0.	0.
FIXED LIABILITIES	19165.	18350.	17311.
LONG TERM DEBT BALANCE	19165.	18350.	17311.
OTHER FIXED LIABILITIES	0.	0.	0.
STOCK HOLDERS EQUITY	-7454.	-8826.	-9970.
SHARE CAPITAL	8912.	8912.	8912.
ACC. RETAINED EARNINGS	-16366.	-17738.	-18883.
LIABILITIES & S/H EQUITY	12526.	10339.	8380.

Table 14-14 LONG TERM DEBT : PHASE I

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 LONG TERM DEBT (PHASE-I)
 - BASE CASE (II) - (US\$ 1000)

AMOUNT OF DEBT		INTEREST RATE		REPAYMENT		20 YEAR-EQUAL-INSTALLMENT-REPAYMENT (ANNUAL REPAYMENT)		BALANCE AFT. PAYMENT			
YEAR	SER.NO	PRINCIPAL	INTEREST	DEBT SERVICE	BALANCE AFT. PAYMENT	YEAR	SER.NO	PRINCIPAL	INTEREST	DEBT SERVICE	BALANCE AFT. PAYMENT
			3.000	PER CENT/YEAR							
1995	1	0.	0.	0.	0.	1995	1	0.	0.	0.	3678.
1996	2	0.	0.	0.	0.	1996	2	0.	0.	0.	13227.
1997	3	0.	0.	0.	0.	1997	3	0.	0.	0.	16297.
1998	4	0.	489.	489.	489.	1998	4	0.	489.	489.	16297.
1999	5	0.	489.	489.	489.	1999	5	0.	489.	489.	16297.
2000	6	0.	489.	489.	489.	2000	6	0.	489.	489.	16297.
2001	7	0.	489.	489.	489.	2001	7	0.	489.	489.	16297.
2002	8	0.	489.	489.	489.	2002	8	0.	489.	489.	16297.
2003	9	0.	489.	489.	489.	2003	9	0.	489.	489.	16297.
2004	10	0.	489.	489.	489.	2004	10	0.	489.	489.	16297.
2005	11	815.	489.	1304.	15483.	2005	11	815.	489.	1304.	15483.
2006	12	815.	464.	1279.	14668.	2006	12	815.	464.	1279.	14668.
2007	13	815.	440.	1255.	13853.	2007	13	815.	440.	1255.	13853.
TOTAL		2445.	4816.	7260.	13853.	TOTAL		2445.	4816.	7260.	13853.

Table 14-15 LONG TERM DEBT : PHASE II

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 LONG TERM DEBT (PHASE-2)
 - BASE CASE (II) - (US\$ 1000)

AMOUNT OF DEBT		4493.				
INTEREST RATE		3.000	PER CENT/YEAR			
REPAYMENT		20 YEAR-EQUAL-INSTALLMENT-REPAYMENT (ANNUAL REPAYMENT)				
YEAR	SER.NO	PRINCIPAL	INTEREST	DEBT SERVICE	BALANCE AFT.	PAYMENT
1995	1	0.	0.	0.	0.	0.
1996	2	0.	0.	0.	0.	0.
1997	3	0.	0.	0.	0.	0.
1998	4	0.	0.	0.	0.	1522.
1999	5	0.	0.	0.	0.	3961.
2000	6	0.	0.	0.	0.	4497.
2001	7	0.	135.	135.	135.	4497.
2002	8	0.	135.	135.	135.	4497.
2003	9	0.	135.	135.	135.	4497.
2004	10	0.	135.	135.	135.	4497.
2005	11	0.	135.	135.	135.	4497.
2006	12	0.	135.	135.	135.	4497.
2007	13	0.	135.	135.	135.	4497.
TOTAL		0.	944.	944.	944.	4497.

Table 14-16 RETURN ON INVESTMENT: CASE II

*** PAYMENT SYSTEM PROJECT IN KYRGYSTAN ***
 RETURN ON INVESTMENT (IN '84 FIXED PRICE)
 - BASE CASE (1) - (US\$ 1000)

YEAR	FIXED CAPITAL EXPEND.	CHANGE IN WORKING CAPITAL	GROSS CAPITAL EXPENDTR	OPERATING PROFIT	DEPRECIATN	GROSS CASH IN-FLOW	INCOME TAX	BFR-TAX NET IN-FLOW	AFT-TAX NET IN-FLOW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1995	5199.	0.	5199.	0.	0.	0.	0.	-5199.	-5199.
1996	13392.	0.	13392.	0.	0.	0.	0.	-13392.	-13392.
1997	3954.	0.	3954.	0.	0.	0.	0.	-3954.	-3954.
1998	2151.	0.	2151.	-1599.	2429.	829.	0.	-1322.	-1322.
1999	3404.	0.	3404.	-1339.	2429.	1090.	0.	-2314.	-2314.
2000	642.	0.	642.	-1433.	2429.	996.	0.	354.	354.
2001	0.	0.	0.	-1950.	3107.	1157.	0.	1157.	1157.
2002	0.	0.	0.	-1783.	3107.	1324.	0.	1324.	1324.
2003	0.	0.	0.	-1408.	2906.	1497.	0.	1497.	1497.
2004	0.	0.	0.	-1228.	2906.	1678.	0.	1678.	1678.
2005	0.	0.	0.	-1039.	2906.	1866.	0.	1866.	1866.
2006	0.	0.	0.	-773.	2834.	2062.	0.	2062.	2062.
2007	-1820.	0.	-1820.	-570.	2834.	2265.	0.	4085.	4085.
	26922.		26922.	-13122.	27887.	14764.	0.	-12157.	-12157.

INTERNAL RATE OF RETURN

ON (4) BFR-TAX NET IN-FLOW (2)-(1) -7.12 PER CENT

ON (5) AFT-TAX NET IN-FLOW (4)-(3) -7.12 PER CENT

Table 14-17 CONSOLIDATED PROJECT BUDGET DISBURSEMENT SCHEDULE (1/2)

(UNIT: 1000 US\$)

	1995		1996		1997		1998		1999		2000		TOTAL		
	F	L	F	L	F	L	F	L	F	L	F	L	F	L	
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
I. MAN-MONTH ALLOCATION															
1. SYSTEM ENGINEERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1) BASIC SOFTWARE	113	0	221	0	81	0	36	0	60	0	0	0	511	0	511
(2) SOFTWARE DEVELOPMENT	0	0	0	0	48	48	24	24	20	20	28	28	0	120	120
(3) SYSTEM TRANSITION	0	0	0	0	48	48	24	24	48	48	0	0	0	120	120
(4) TEST	113	0	221	0	81	96	36	48	60	68	28	28	511	240	751
(SUB TOTAL)	16	16	24	24	12	22	12	12	12	16	6	6	76	56	132
2. INTERPLETER	21	0	36	0	36	0	36	0	27	0	0	0	156	0	156
3. NIK ENGINEERS	150	0	281	0	129	118	84	60	96	84	0	34	743	296	1039
TOTAL	150	150	281	281	247	247	144	144	183	183	34	34	743	296	1039
II. ABSENCE FEE															
1. SYSTEM ENGINEERS	1356	0	2652	0	972	0	432	0	720	0	0	0	6132	0	6132
(1) SOFTWARE DEVELOPMENT	0	0	0	0	576	0	288	0	240	0	336	336	1440	0	1440
(2) SYSTEM TRANSITION	0	0	0	0	576	0	288	0	576	0	0	0	1440	0	1440
(3) TEST	1356	0	2652	0	2124	0	1008	0	1536	0	336	336	9012	0	9012
(SUB TOTAL)	256	0	384	0	544	0	384	0	448	0	96	96	2112	0	2112
2. INTERPLETER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. NIK ENGINEERS	1612	0	3036	0	2668	0	1392	0	1984	0	432	432	11124	0	11124
TOTAL	1612	1612	3036	3036	2668	2668	1392	1392	1984	1984	432	432	11124	0	11124
III. TRAVEL EXPENSES															
1. SYSTEM ENGINEERS	24	0	12	0	12	0	12	0	12	0	12	12	84	0	84
(1) SOFTWARE DEVELOPMENT	0	0	0	0	32	0	16	0	13	0	19	19	80	0	80
(2) SYSTEM TRANSITION	0	0	0	0	32	0	16	0	32	0	0	0	80	0	80
(3) TEST	24	0	12	0	76	0	44	0	57	0	31	31	244	0	244
(SUB TOTAL)	0	0	0	0	15	0	8	0	11	0	4	4	37	0	37
2. INTERPLETER	14	0	24	0	24	0	24	0	18	0	0	0	104	0	104
3. NIK ENGINEERS	38	0	36	0	115	0	76	0	86	0	35	35	385	0	385
TOTAL	38	38	36	36	115	115	76	76	86	86	35	35	385	0	385
IV. LODGING/PERDIEM ALLOWANCE															
1. SYSTEM ENGINEERS	2	3	1	2	3	1	2	3	1	2	3	1	2	3	21
(1) SOFTWARE DEVELOPMENT	0	0	0	0	55	79	28	39	23	33	32	32	138	197	335
(2) SYSTEM TRANSITION	0	0	0	0	55	79	28	39	55	79	0	0	138	197	335
(3) TEST	2	3	1	2	3	1	2	3	1	2	3	1	2	3	21
(SUB TOTAL)	0	0	0	0	25	36	14	20	18	26	45	7	64	92	157
2. INTERPLETER	95	0	162	0	162	0	162	0	122	0	0	0	702	0	702
3. NIK ENGINEERS	97	3	163	2	299	196	232	100	219	140	40	58	1049	501	1550
TOTAL	97	3	163	2	299	196	232	100	359	140	40	58	1049	501	1550

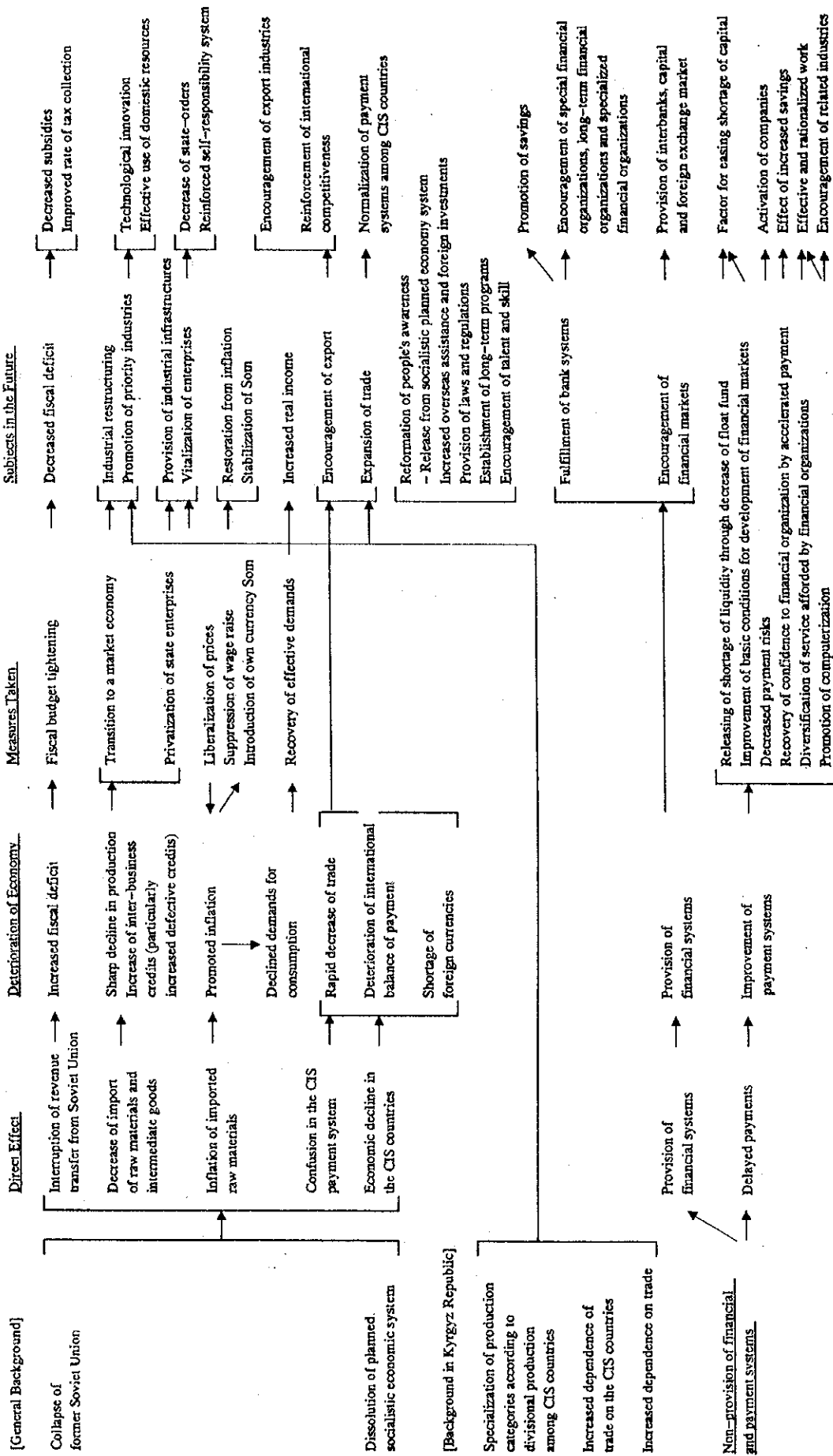
Table 14-17 CONSOLIDATED PROJECT BUDGET DISBURSEMENT SCHEDULE (2/2)

(UNIT:1000 US\$)

	1995			1996			1997			1998			1999			2000			TOTAL					
	F	L	TOTAL	F	L	TOTAL	F	L	TOTAL	F	L	TOTAL	F	L	TOTAL	F	L	TOTAL	F	L	TOTAL			
																						TOTAL	TOTAL	TOTAL
V. CONTINGENCIES																								
1. SYSTEM ENGINEERS																								
(1) SOFTWARE DEVELOPMENT	477	0	478	930	0	930	342	0	342	153	0	153	253	0	253	1	0	1	2155	1	2155	1	1	2157
(2) SYSTEM TRANSITION	0	0	0	0	0	0	66	8	74	33	4	37	28	3	31	39	5	43	166	20	186	20	20	186
(3) TEST	0	0	0	0	0	0	66	8	74	33	4	37	66	8	74	0	0	0	166	20	186	20	20	186
(SUB TOTAL)	477	0	478	930	0	930	474	16	490	219	8	227	347	11	359	40	5	45	2487	41	2528	41	41	2528
2. INTERPLETER	26	0	26	38	0	38	58	4	62	41	2	43	48	3	50	11	1	12	221	9	231	9	9	231
3. NBK ENGINEERS	11	0	11	19	0	19	19	0	19	19	0	19	14	0	14	0	0	0	81	0	81	0	0	81
TOTAL	514	0	514	987	0	987	551	20	571	278	10	288	409	14	423	51	6	56	2789	50	2839	50	50	2839
VI. FACILITY INVESTMENT																								
(1) BASIC SOFTWARE	873	0	873	1771	0	1771	0	0	0	0	0	0	129	0	129	0	0	0	2773	0	2773	0	0	2773
(2) HARDWARE	1272	0	1272	6216	0	6216	0	0	0	0	0	0	295	0	295	0	0	0	7783	0	7783	0	0	7783
(3) AUXILIARY EQUIPMENT	398	2	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	398	2	400	2	2	400
(4) TRANSPORT & HANDLING	36	2	38	134	5	139	0	0	0	19	1	20	19	1	20	0	0	0	189	8	197	8	8	197
(5) INSTALLATION	11	20	31	41	73	114	0	0	0	0	0	0	6	10	16	0	0	0	58	103	161	103	103	161
(6) CONTINGENCIES	259	2	261	816	8	824	0	0	0	2	0	2	45	1	46	0	0	0	1120	11	1131	11	11	1131
TOTAL	2849	26	2875	8978	86	9064	0	0	0	21	1	22	494	12	506	0	0	0	12321	124	12445	124	124	12445
VII OTHER INVESTMENT COSTS																								
(1) PREOPERATIONAL EXPCS	11	44	55	20	75	95	20	75	95	12	45	57	9	33	42	4	14	18	76	286	362	18	18	362
(2) CONTINGENCIES	1	4	6	2	8	10	2	8	10	1	5	6	1	3	4	0	1	2	8	29	36	2	2	36
TOTAL	12	48	61	22	83	105	22	83	105	13	50	63	10	36	46	4	15	20	84	315	398	20	20	398
VIII GRAND TOTAL	5122	78	5200	13222	170	13392	3655	298	3952	2012	161	2173	3202	202	3404	562	79	641	27752	990	28742	641	641	28742

FIGURES

Figure 3-1 PRESENT STATUS OF KYRGYZ ECONOMY AND SUBJECTS



**Figure 3-2 REQUEST BY THE KYRGYZ FEDERATION OF
MANUFACTURING ENTERPRISES**

(Note) The following is a summary of the requests made by the Kyrgyz Federation of manufacturing Enterprises in a written appeal submitted to the President, the Government and the National Assembly at the end of July, 1994.

The managements of Kyrgyz enterprises request the following to the President, the Government and the National Assembly:

- 1) That the Ministry of Finance, together with the National Bank, guarantee a 2- 3 year period of grace for loans previously provided as well as reconsidering their interest rates.
- 2) That an exemption be given regarding penalties on unpaid taxes for 1993-1994.
- 3) That the problem of mutual payments between enterprises of the Kyrgyz Republic and of CIS countries be solved on the intergovernmental level.
- 4) That favorable financing conditions be granted for procurement of working funds.
- 5) That reconsideration be given on the tax system as early as possible (with a view to alleviating the heavy tax burden) so that the total amount of taxes, regardless of direct or indirect taxes, will not exceed 50% of total profits.
- 6) That all kinds of taxes included in the cost of commodities be abolished.
- 7) That the housing and public sectors entered in the balance-sheet of enterprises be placed under the control of local governments as their property.
- 8) That payments into the budget (Note; Probably meaning tax payments.) be made once every quarter.
- 9) That a responsible organization be established for commercial banks to make payment within the Republic immediately.
- 10) That commercial banks be ensured free foreign exchange operations.
- 11) That comprehensive measures be considered to make it possible to maintain a comparatively low exchange rate with respect to the U.S. dollar and that the same be done with respect to the currencies of Kyrgyz basic foreign trade partners, the CIS countries.
- 12) That a working group consisting of representatives of the Federation of Enterprises, representatives of enterprise and representatives of various government ministries and agencies be set up for consideration at regular intervals of the problem of setting businesses back on their feet so as to be able to solve that problem.

Figure 3-3 IMPORTANCE OF PROVISION AND IMPROVEMENT OF FINANCIAL AND PAYMENT SYSTEMS

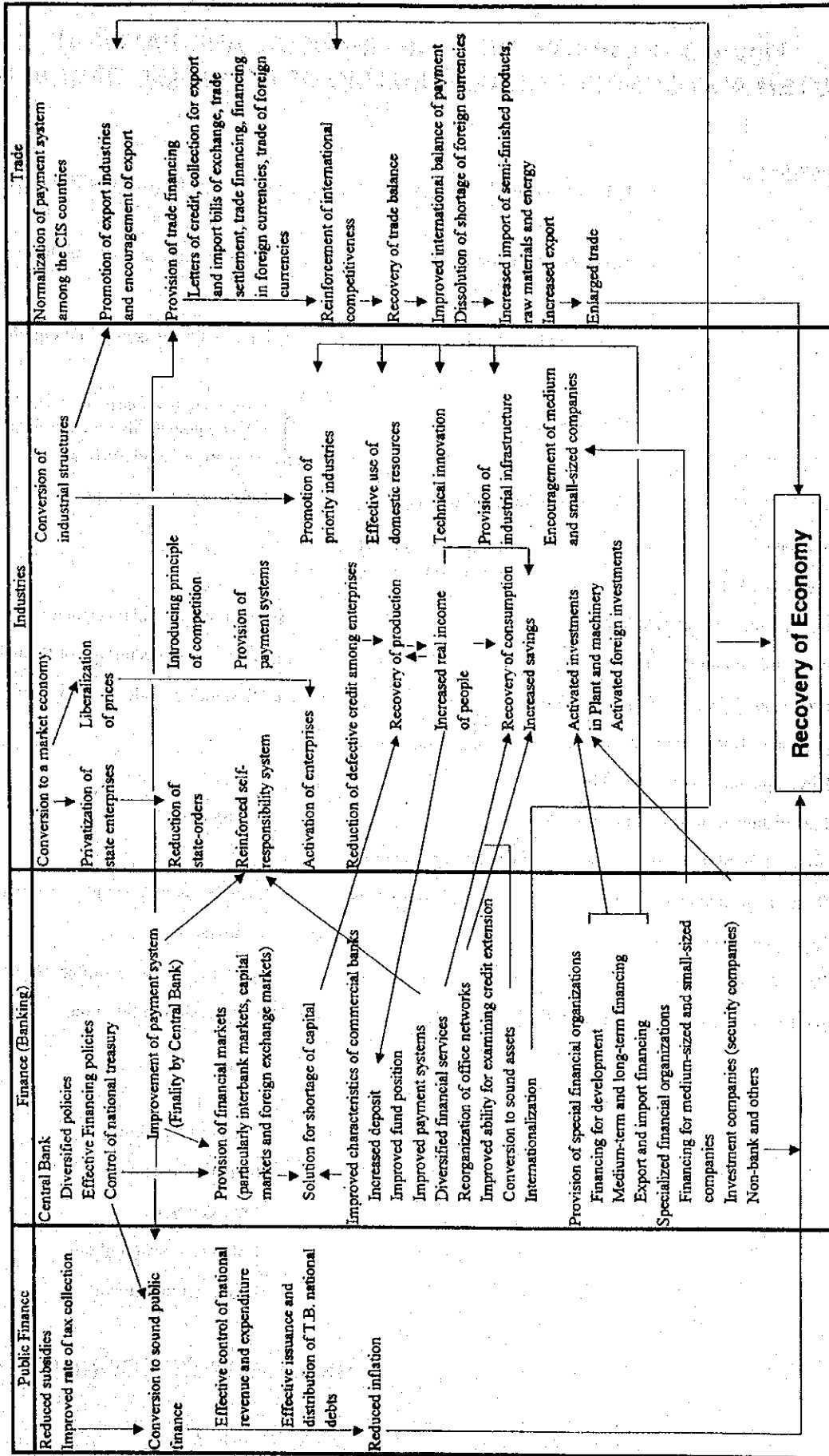


Figure 3-4 IMPROVEMENT OF FINANCIAL AND PAYMENT SYSTEM AND CONCEPTIONAL SCENARIO OF ECONOMIC RECOVERY

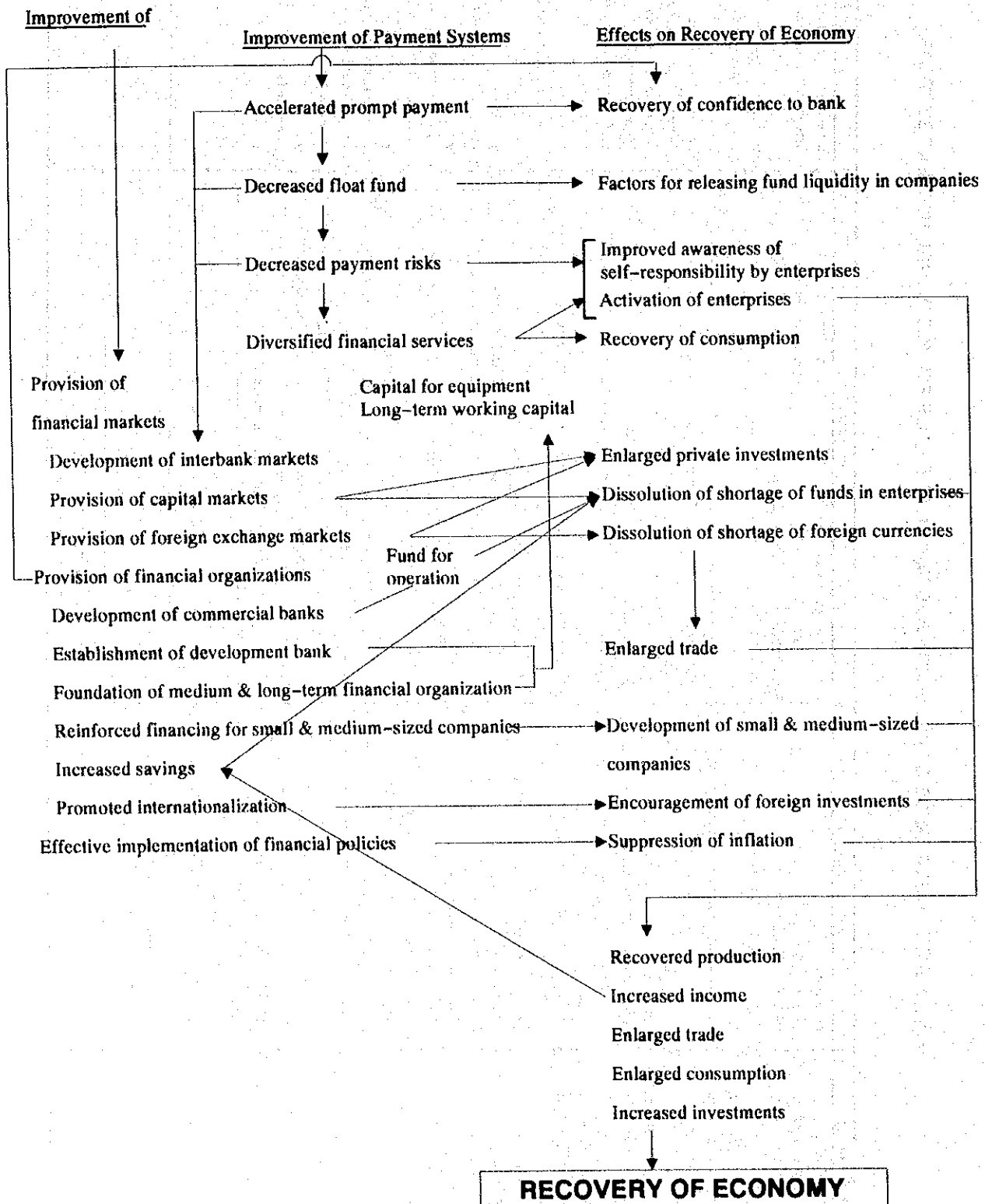


Figure 3-5 LIST OF FOREIGN AID CREDITS EXTENDED OR TO BE EXTENDED TO KYRGYZ REPUBLIC

Purpose of Aid Credit		Currency	Amount (Mil.)	Equivalent to in US\$ (Mil.)	Interest Rate (%)	Repayment Terms		Amount Disbursed as of July 1, 1994 (Mil.\$)
						Total	Grace Period	
1. Foreign Aid Credit Extended								
IMF	1) Stand-by 2) STF	US\$	62.0	62.0	5.7	10	3	60.0
IBRD (IDA)	1) Forex Component 2) Purchase of Goods 3) Technical Assistance	US\$	60.0	60.0	0.75	40	10	35.6
Japanese Government (OECF)	1) BOP Assistance 2) Purchase of Goods & Services 3) Technical Assistance	US\$	60.0	60.0	3.0	30	10	7.3
Turkish Government	1) Commodity Loan 2) Investment Loan	US\$	75.0	75.0	LIBOR+1.3 8	4 6	1.5 3	19.3 4.8
EC Committee	Purchase of 1) Medical Equipment 2) Infant Food	ECU	23.7	25.7	LIBOR+1.3	3	3	24.4
Swiss Government	Subrogation of Debt to IFC and MIGA	US\$	1.1	1.1	-	6	3	1.1
Pakistan Government	Purchase of Pharmaceutical Equipment	US\$	10.0	10.0	5.0	4	1	4.0
Russian Federation	1) Technical Credit 2) Inter-state Settlement	Ruble	15,000.0 12,027.0 55,800.0	12.5 7.2 111.7	LIBOR+1 LIBOR+2 LIBOR+3	3 3 8	2 2 2	12.5 7.2 111.7
Kazakhstan Government	1) Technical Credit 2) Inter-state Settlement	Ruble	17,814.5	31.5	LIBOR+3.7	6	2	31.5
Uzbekistan Government	1) Technical Credit 2) Inter-state Settlement	Ruble	9,487.0	13.3	LIBOR+3.7	6	2	13.3
Sub-total				470.0				
2. Foreign Aid Credit to be Extended								
IBRD	Financial Assistance for Reforms of Agriculture and Tele-communication and for Privatization Program	US\$	120.0	120.0	-	-	Not decided yet	-
IMF	ESAF	SDR	9.4	13.8	-	-	Not decided yet	-
EBRD	1) Assistance of Agriculture, Textile Industry and Small/Medium Scale Industry	ECU	10.0	11.6		15	5	-
	2) Assistance for Development of Tele-communication and for bringing up of Individual Firm and Grain Industry	US\$	45.0	45.0	-	-	Not decided yet	-
KFW	1) Assistance of Agriculture, Textile Industry and Small/Medium Scale Industry	DM	15.0	9.8	2.0	30	10	-
	2) Assistance for bringing up Small/Medium Scale Industry	DM	20.0	13.1	0.75	40	10	-
Saudi Development Fund (Co-financing with EBRD)	Project Assistance for Improvement of Highway	US\$	17.0	17.0	-	-	Not decided yet	-
Japanese Government	Project Assistance	US\$	60.0	60.0	-	-	Not decided yet	-
Sub-total				291.7				
Total				761.7				332.7

Source: NBK

Figure 4-1 HISTORY OF BANKING SYSTEM IN THE KYRGYZ REPUBLIC

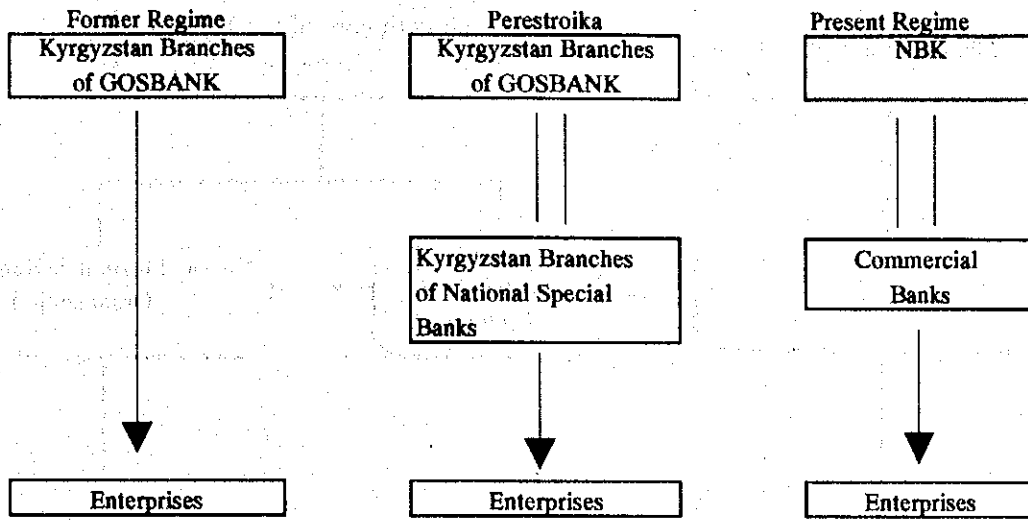


Figure 4-2 THE PRESENT FINANCIAL STRUCTURE

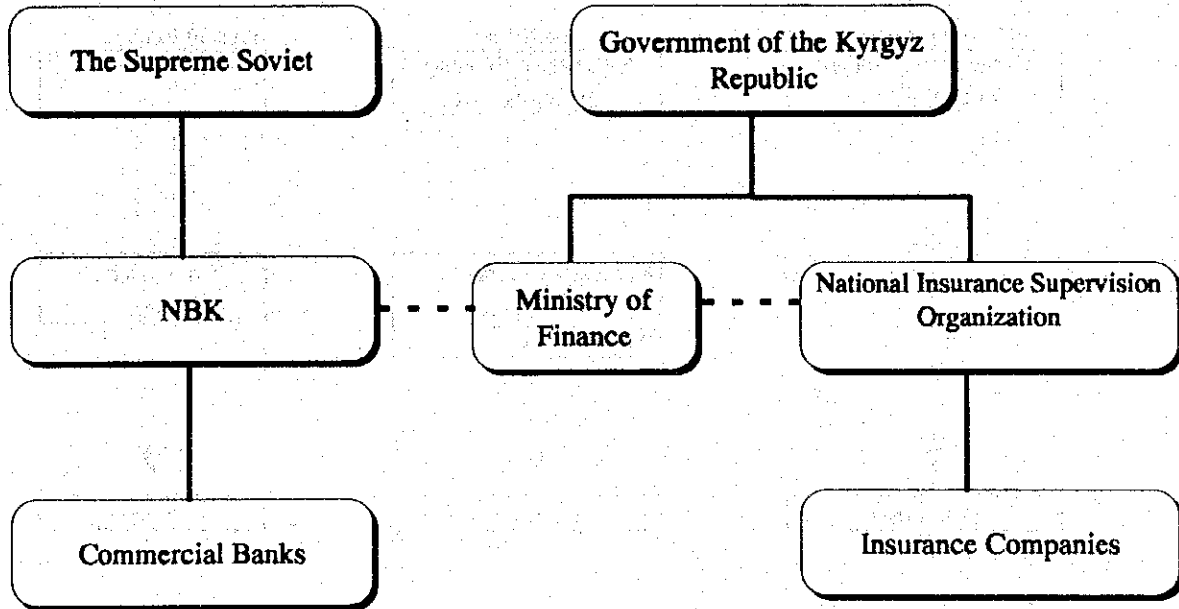
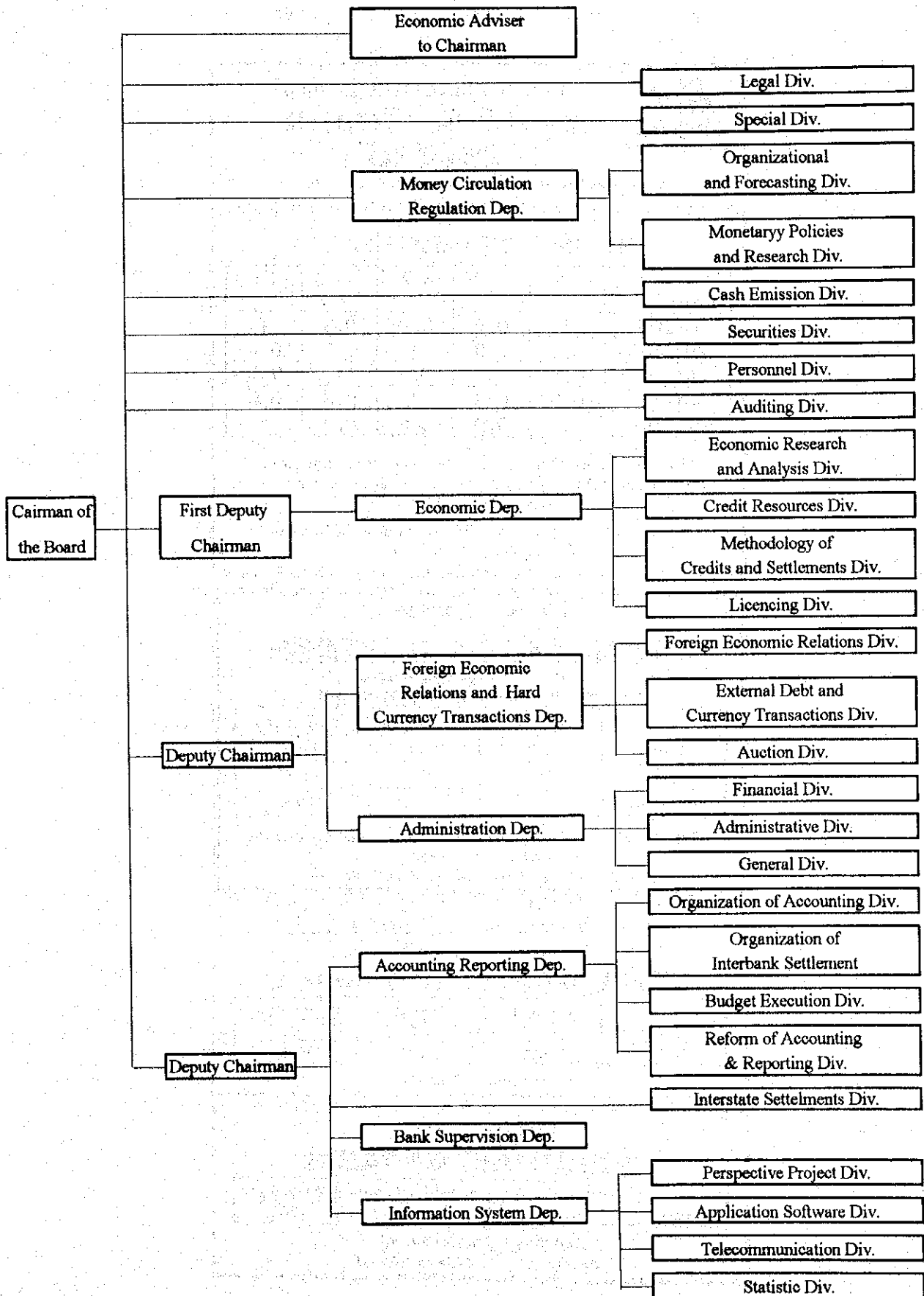


Figure 4-3 ORGANIZATION CHART OF NBK(AS OF MARCH,1994)



(Source:NBK)

Figure 4-4 NEWSPAPER ADVERTISEMENT OF FIRMA

AK Вам срочно нужны деньги?
Обращайтесь в "Ломбард - сервис АК"!

- * Мы выдадим любую нужную вам сумму.
- * У нас самые минимальные процентные ставки.

НЕ ВЕРИТЕ? СМОТРИТЕ:

дни \ сомы	5-10	11-15	16-20	21-25	26-30
0-200	1	0,9	0,8	0,9	1
201-400	0,9	0,8	1	0,8	0,9
401-600	0,8	1	0,9	1	0,8
601-800	0,9	0,8	1	0,8	0,9
801-1000	1	0,9	0,8	0,9	1

Обратите внимание: для студентов, пенсионеров, инвалидов войны и труда, матерей-героинь и т.п. — **Льготы — 0,7%.**

Наш адрес: ул. Киевская, 107, остановка "Дом быта".
 Телефон: 21-07-57.

Фирма "Магнат"

ПРИНИМАЕТ ВКЛАДЫ ОТ НАСЕЛЕНИЯ
 Выплата дивидендов
 по окончании срока договора

	1 месяц	3 месяца	6 месяцев
сомы	15%	65%	140%
рубли	15%	70%	150%
доллары	8%	40%	70%

Фирма обеспечит обязательное страхование
 вашего вклада.
 Телефоны: 43-50-10, 22-03-27, 26-46-30.

Трастовая компания J.S.A.
 (Москва, Россия)

БЕРЕТ займы у населения.

	3 месяца	6 месяцев	12 месяцев
Сомы	100%	170%	250%
\$	40%	75%	150%

Телефон: 42-19-64.

Фирма "АТИ"

ПРИНИМАЕТ ВКЛАДЫ

сомы	1 месяц	3 месяца	6 месяцев	12 месяцев
	20%	90%	190%	420%

Адрес: ул. Советская, 94.
 Телефоны: 44-54-84, 47-89-41.

Figure 4-5 LOCATION OF BRANCHES OF COMMERCIAL BANKS
IN THE KYRGYZ REPUBLIC (AS OF JAN. 1994)

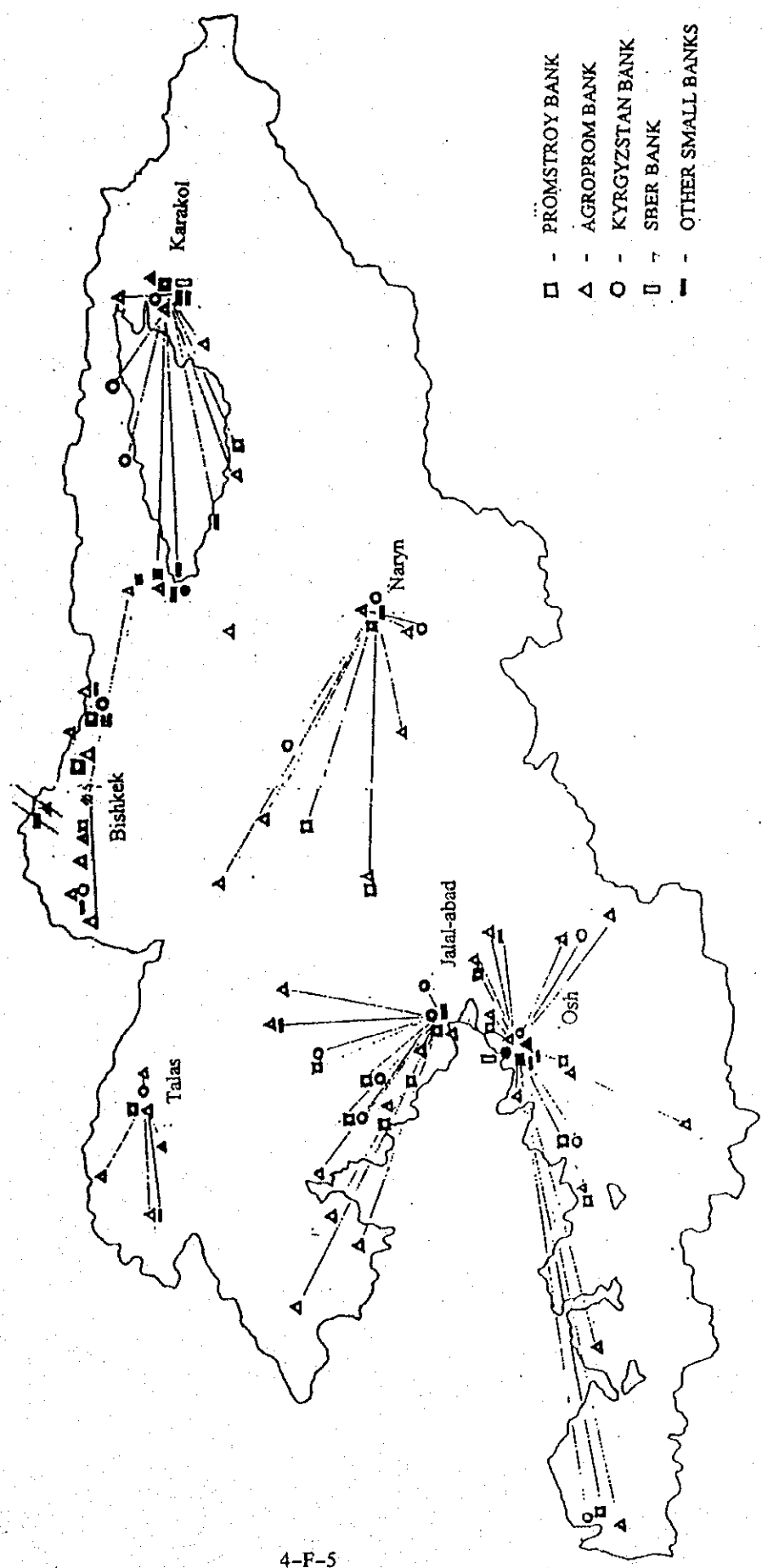
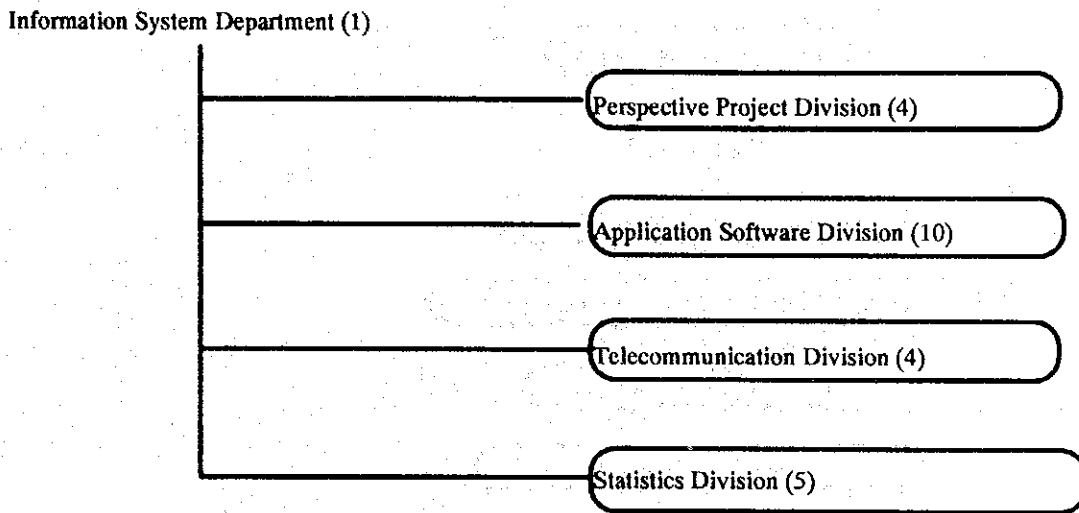


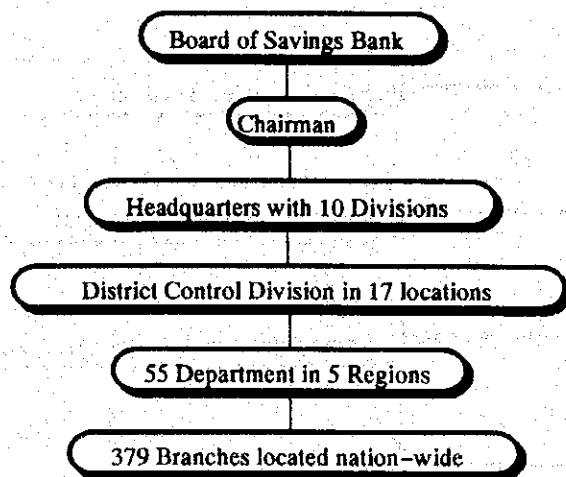
Figure 5-1 ORGANIZATION STRUCTURE OF THE INFORMATION DEPARTMENT



Note: Numbers of regular staff members are shown in the parentheses.

(Source: NBK)

Figure 5-2 ORGANIZATIONAL STRUCTURE OF THE SAVINGS BANK



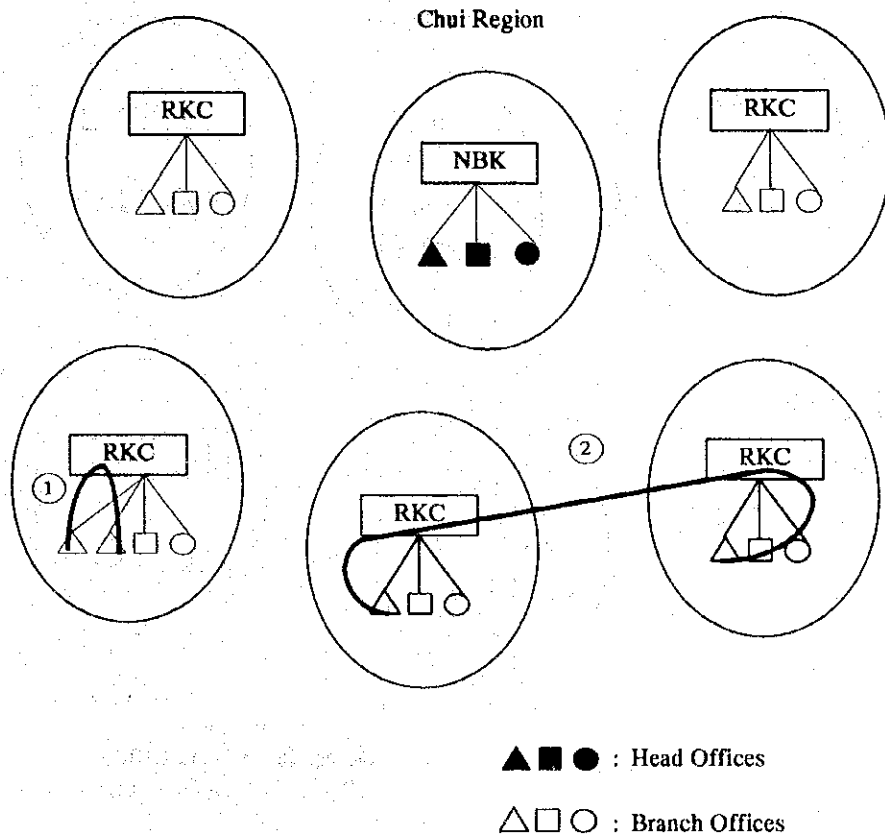
10 Divisions in the Headquarters

1. Financial, Economic Division --- Analysis of economic environment
 2. Accounting, Reporting Division --- Accounting processing, control of financial payment
 3. Securities Division --- Product development for corporations, public relations, development of cashless payment
 4. Automation Division --- Planning, development, hardware installation and development of cashless payment
 5. Auditing Division --- Maintenance of securities of cash assets
 6. Credit Division --- Research of credit market, control of credit and loan
 7. Securities Division --- Control of instrument securities
 8. Personnel Division --- Recruitment, positioning of personnel, and human resources development
 9. Operation Division --- Implementation of inter-bank payment, accept deposit
 10. Foreign Exchange Division --- Implementation of foreign exchange and crossborder (international) payment, research and analysis
-

Source: Savings Bank

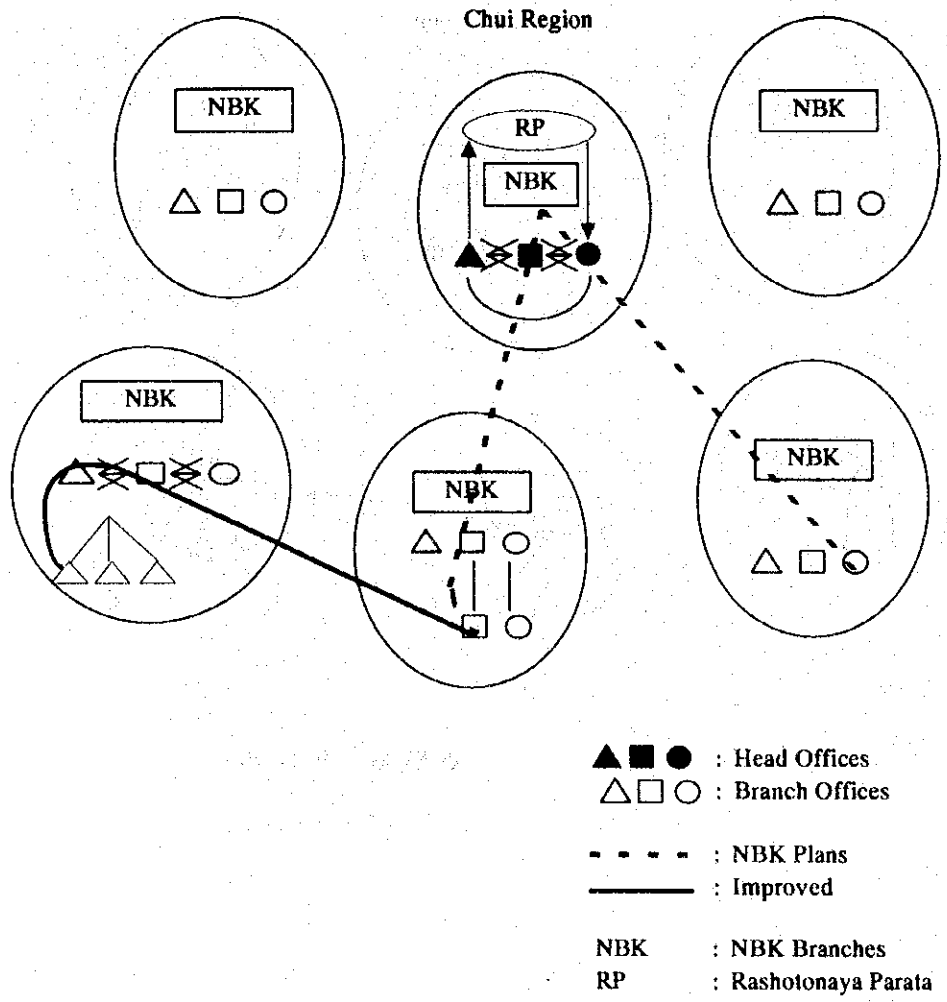
Note: According to NBK, the number of branches is 58, as shown in Table4-1.

Figure 5-3 FLOW OF PAYMENT DOCUMENTS IN OLD RKC DAYS



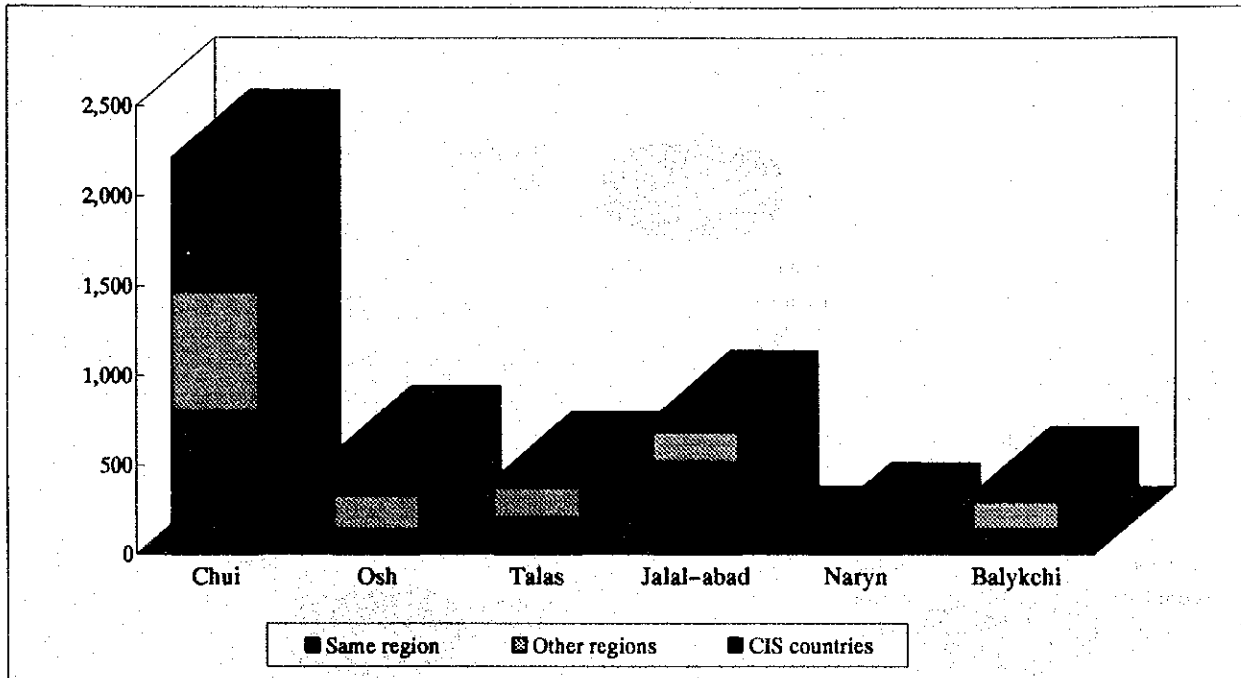
Source: NBK

Figure 5-4 FLOW OF PAYMENT DOCUMENTS AFTER MAY 1993



Source: NBK

Figure 5-5 NUMBER OF PAYMENT DOCUMENTS IN OLD RKC IN 1992



Source: NBK Jan., 1994

Figure 5-6 PAYMENT DOCUMENTS OF EACH REGION(1/2)

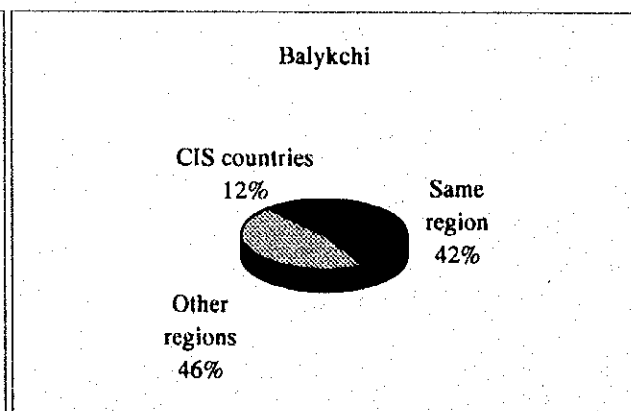
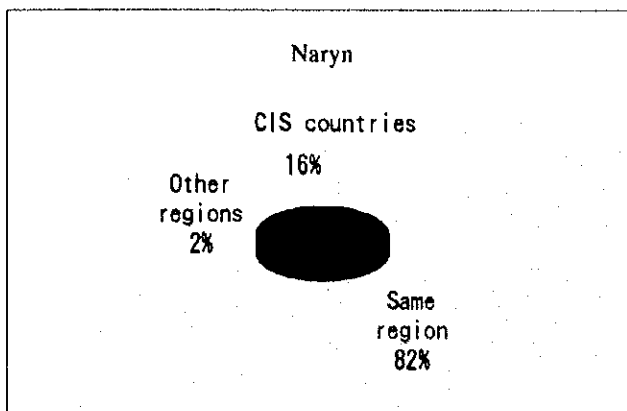
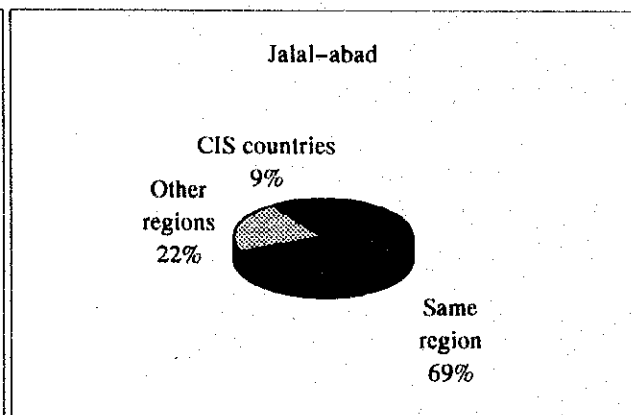
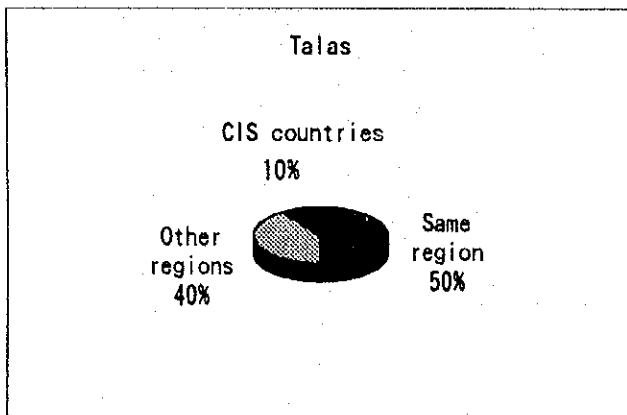
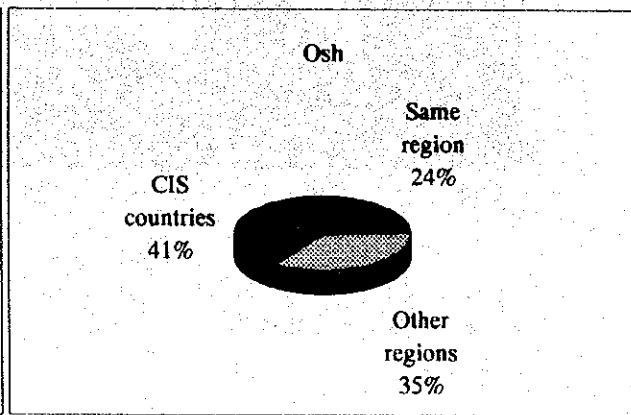
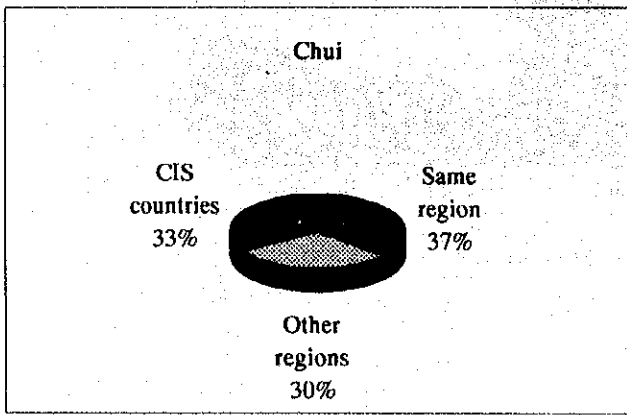
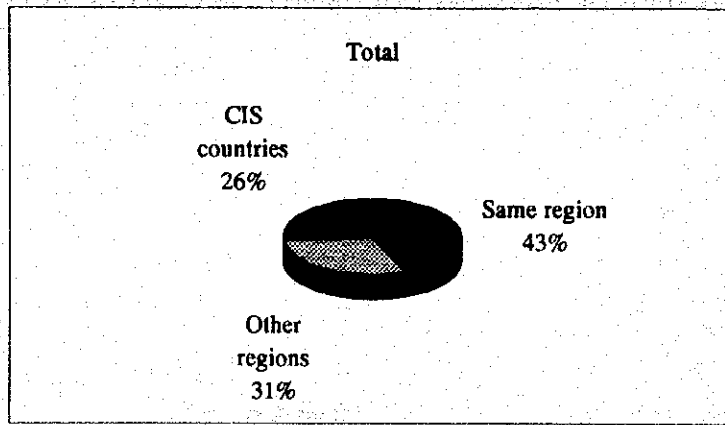
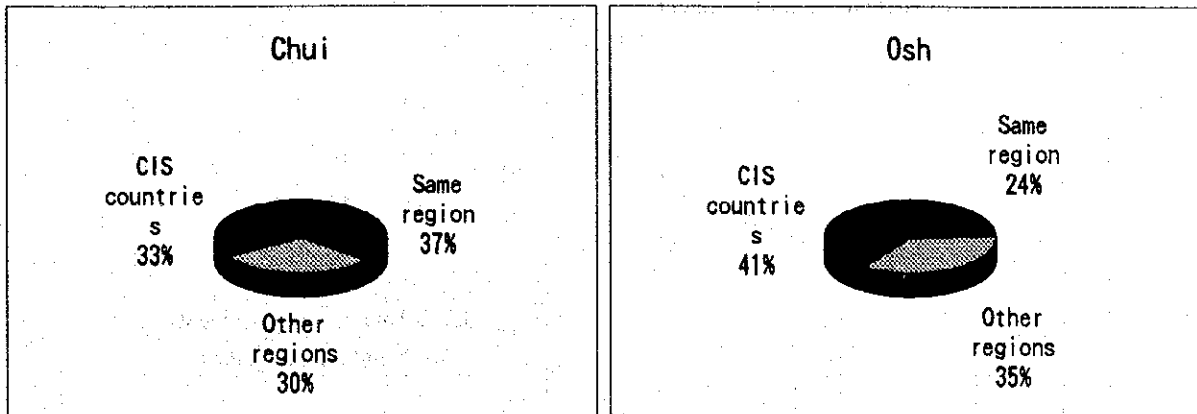


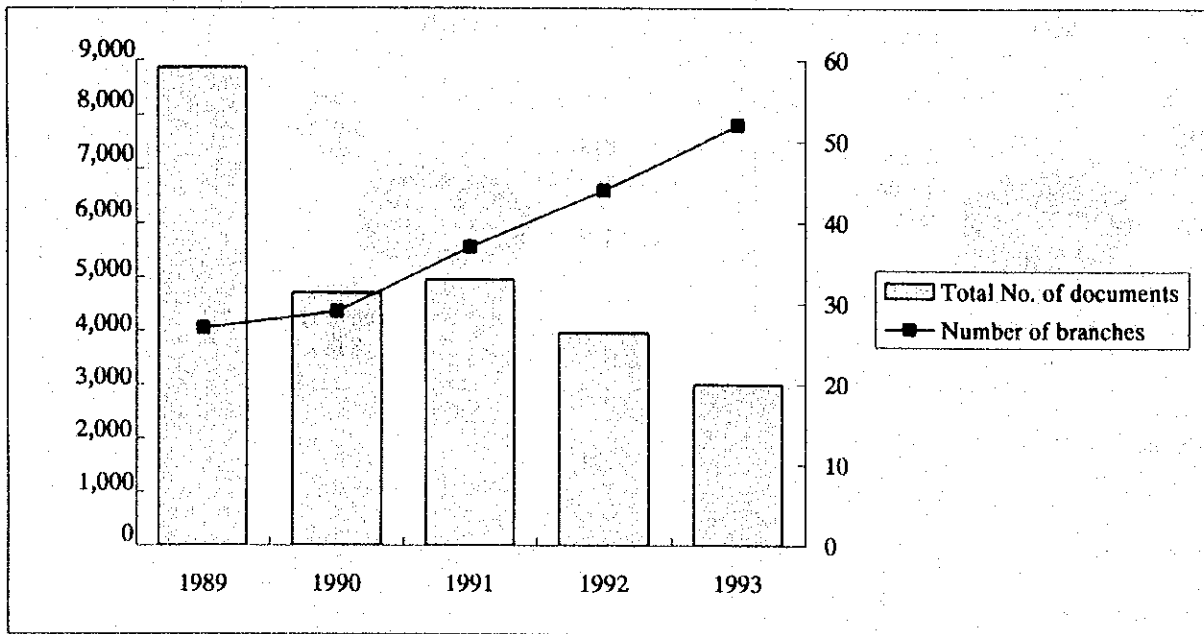
Figure 5-6 PAYMENT DOCUMENTS OF EACH REGION(2/2)



Source: NBK Jan., 1994

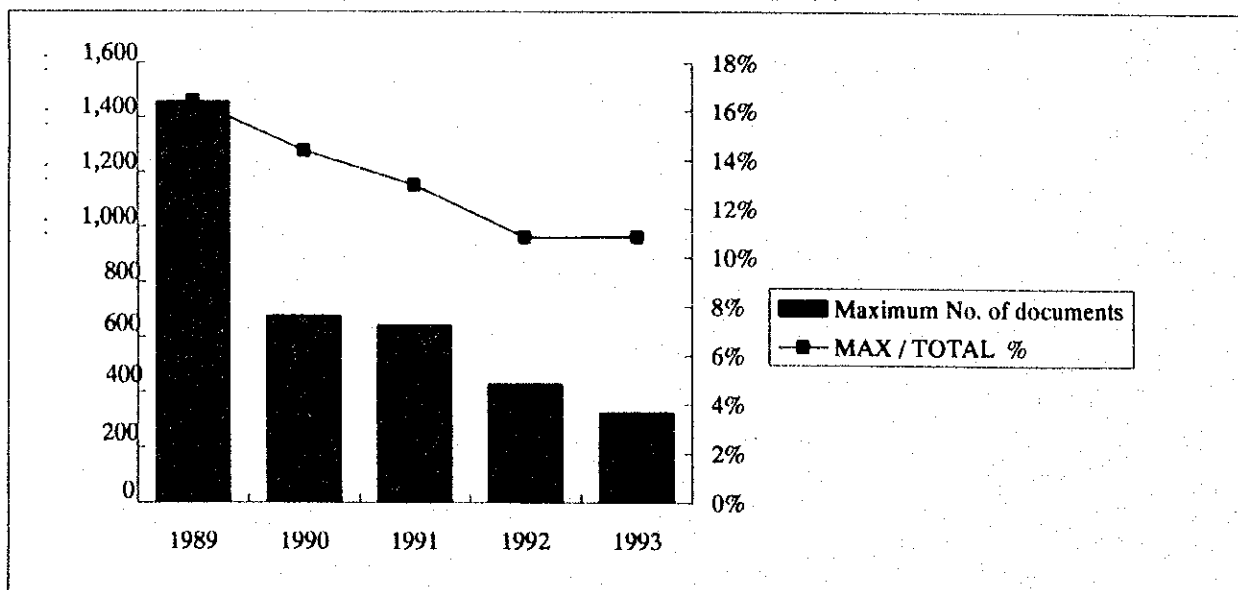
Figure 5-7 NUMBER OF DOCUMENTS PROCESSED IN CHUI COMPUTER CENTER OF NBK(1/2)

a. Total number of Documents



Source: NBK Chui Computer Center, Jan., 1994

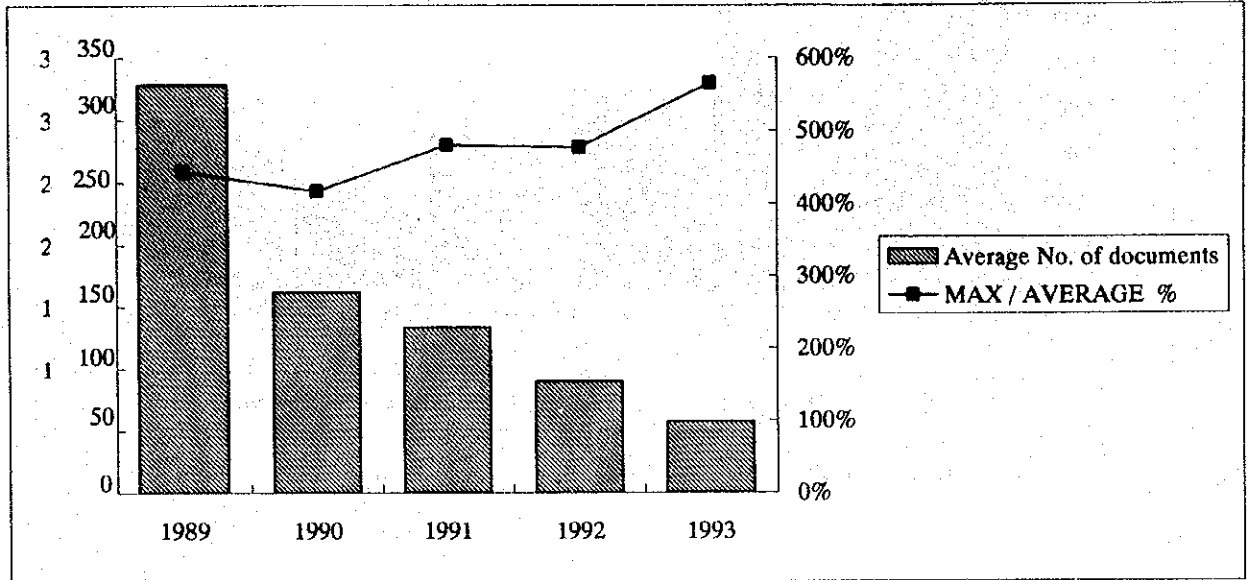
b. Maximum number of documents in a branch



Source: NBK Chui Computer Center, Jan., 1994

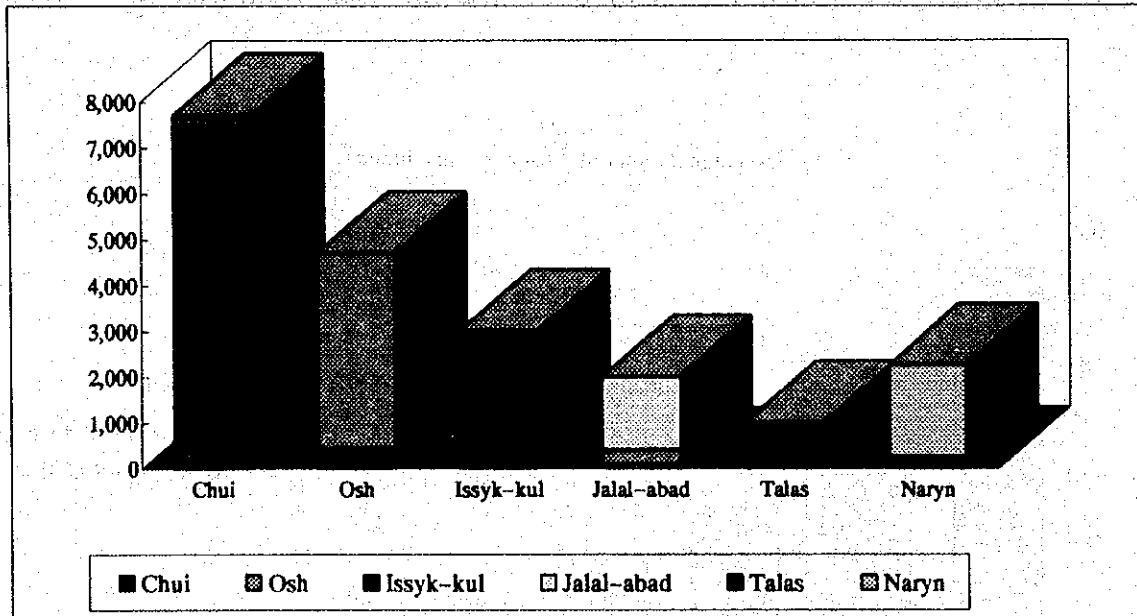
Figure 5-7 NUMBER OF DOCUMENTS PROCESSED IN CHUI COMPUTER CENTER OF NBK(2/2)

c. Average number of documents in a branch



Source: NBK Chui Computer Center, Jan., 1994

Figure 5-8 NUMBER OF PAYMENT TRANSACTIONS OF 9 BANKS



Source: NBK Computer Center, Jan., 1994

Figure 5-9 EXISTING COMPUTER NETWORKS FOR THE PAYMENT SYSTEMS

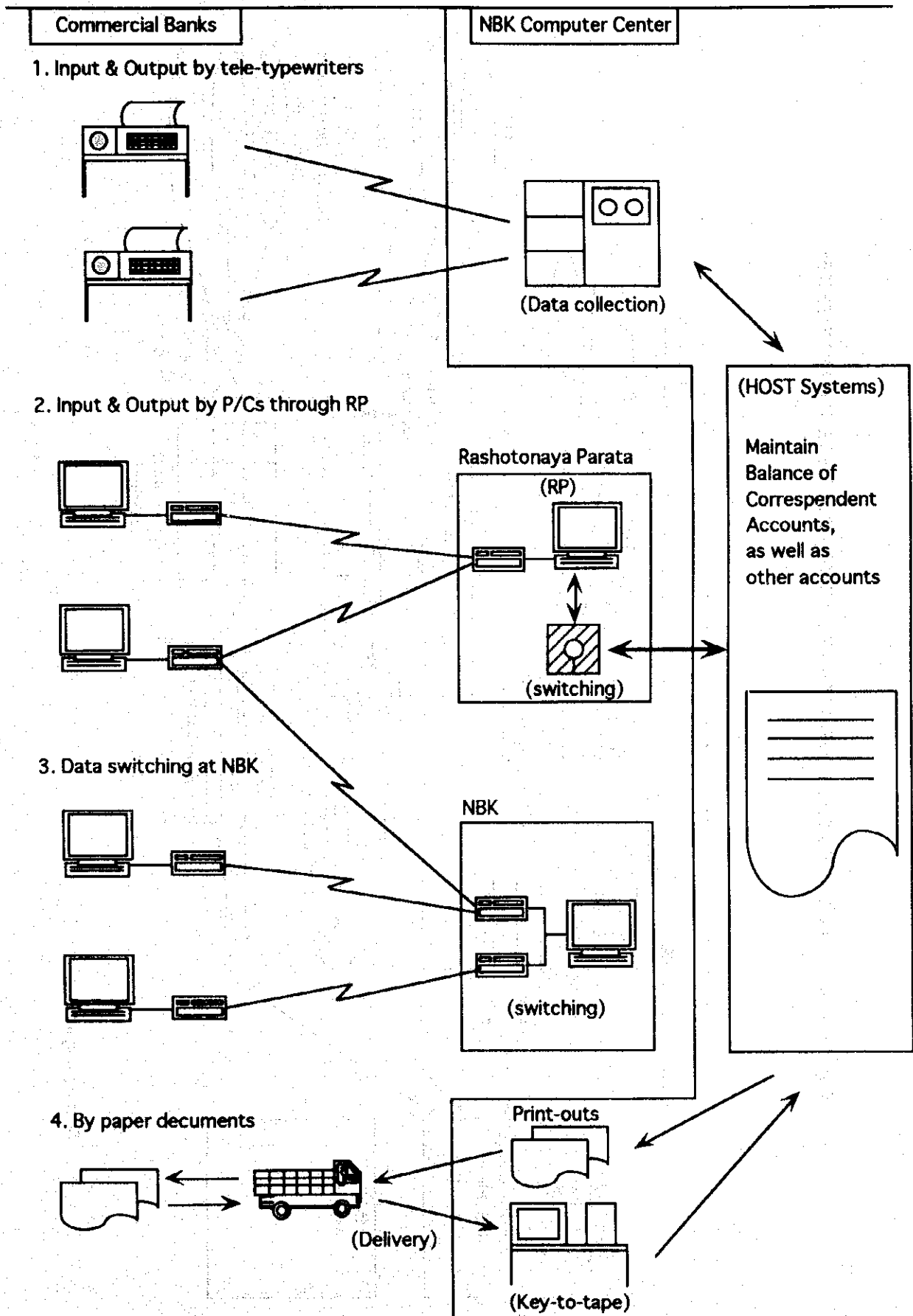
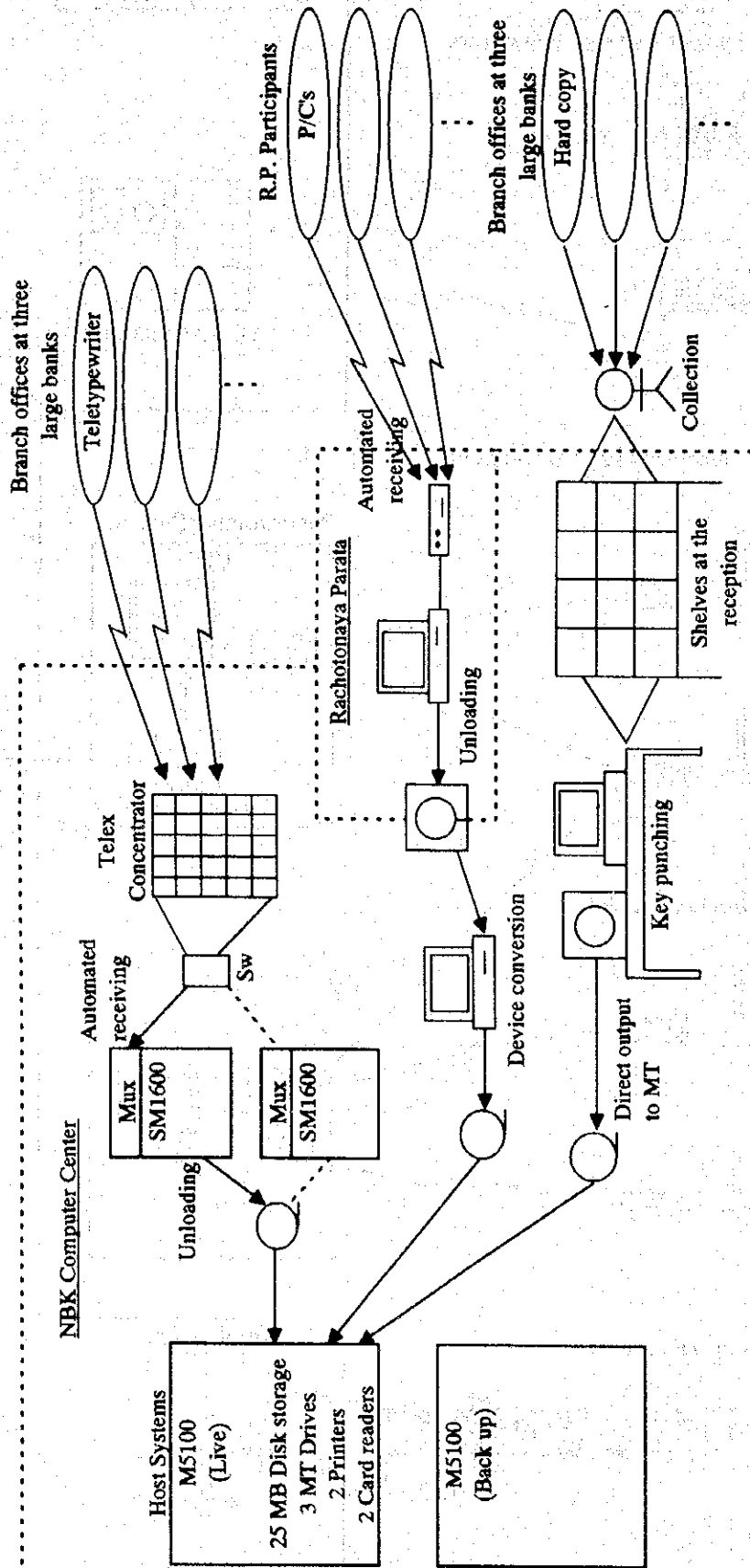
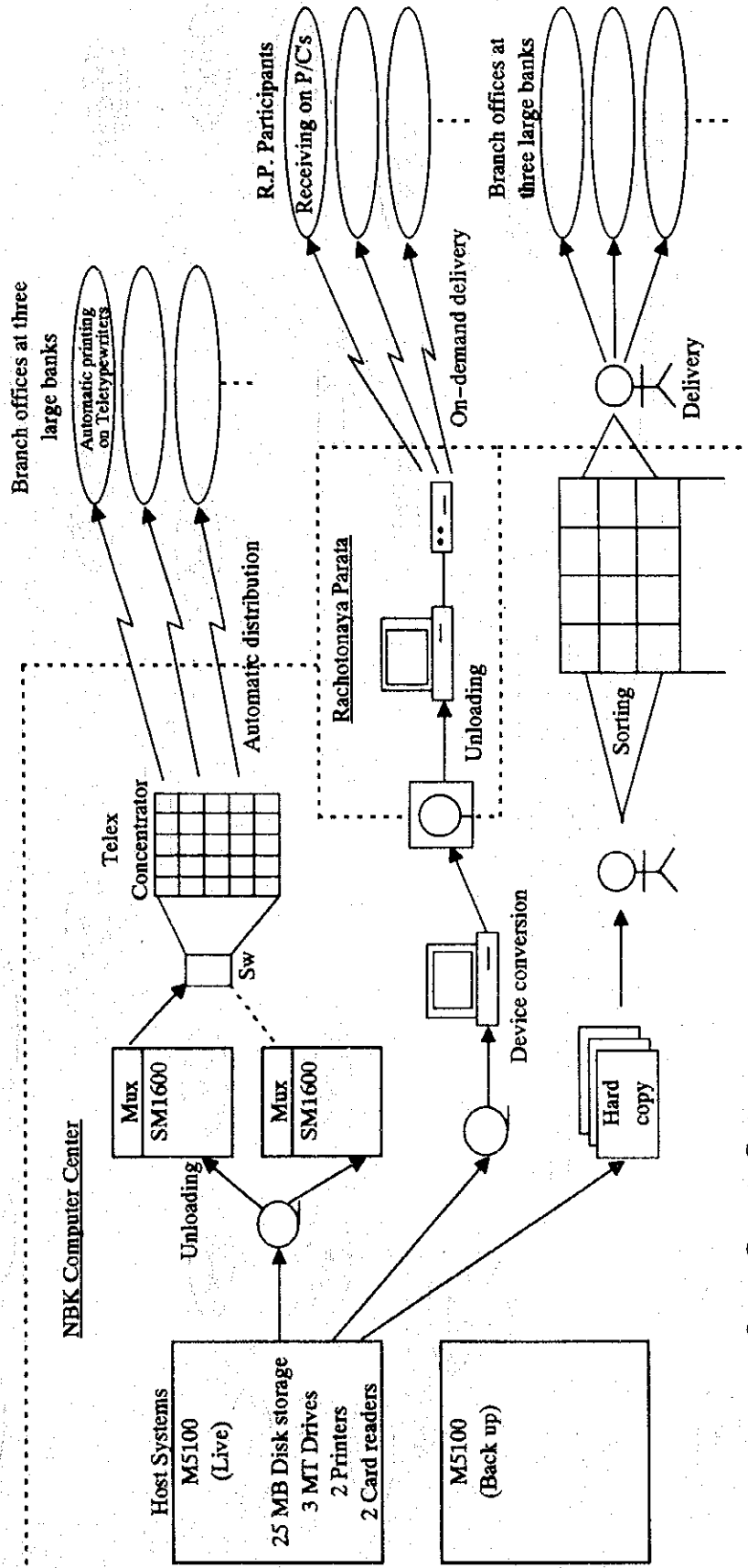


Figure 5-10 COLLECTING PAYMENT DATA AT NBK COMPUTER CENTER IN BISHKEK



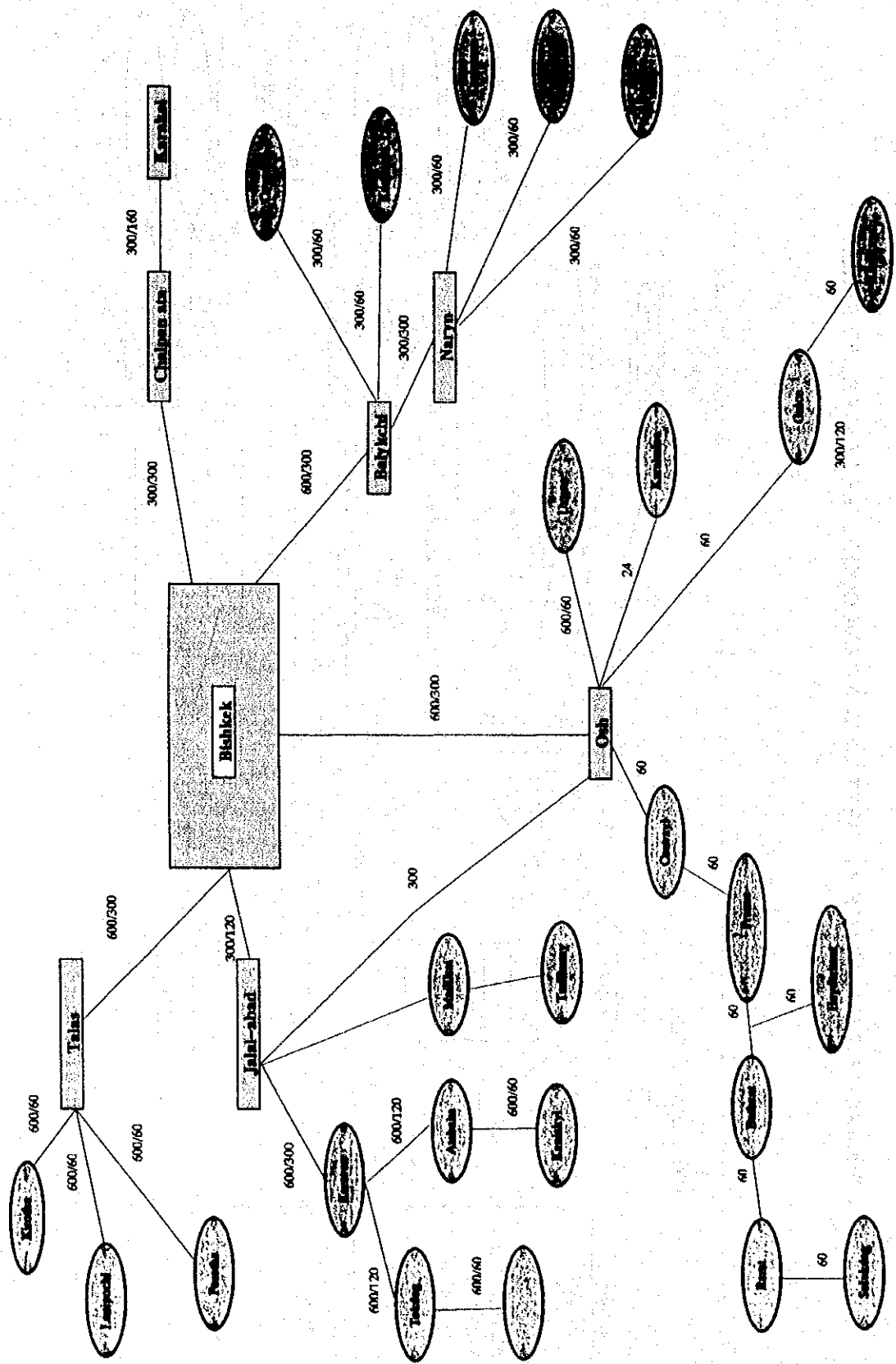
Source: Computer Center

Figure 5-11 DELIVERY OF PAYMENT DATA AT NBK COMPUTER CENTER IN BISHKEK



Source: Computer Center

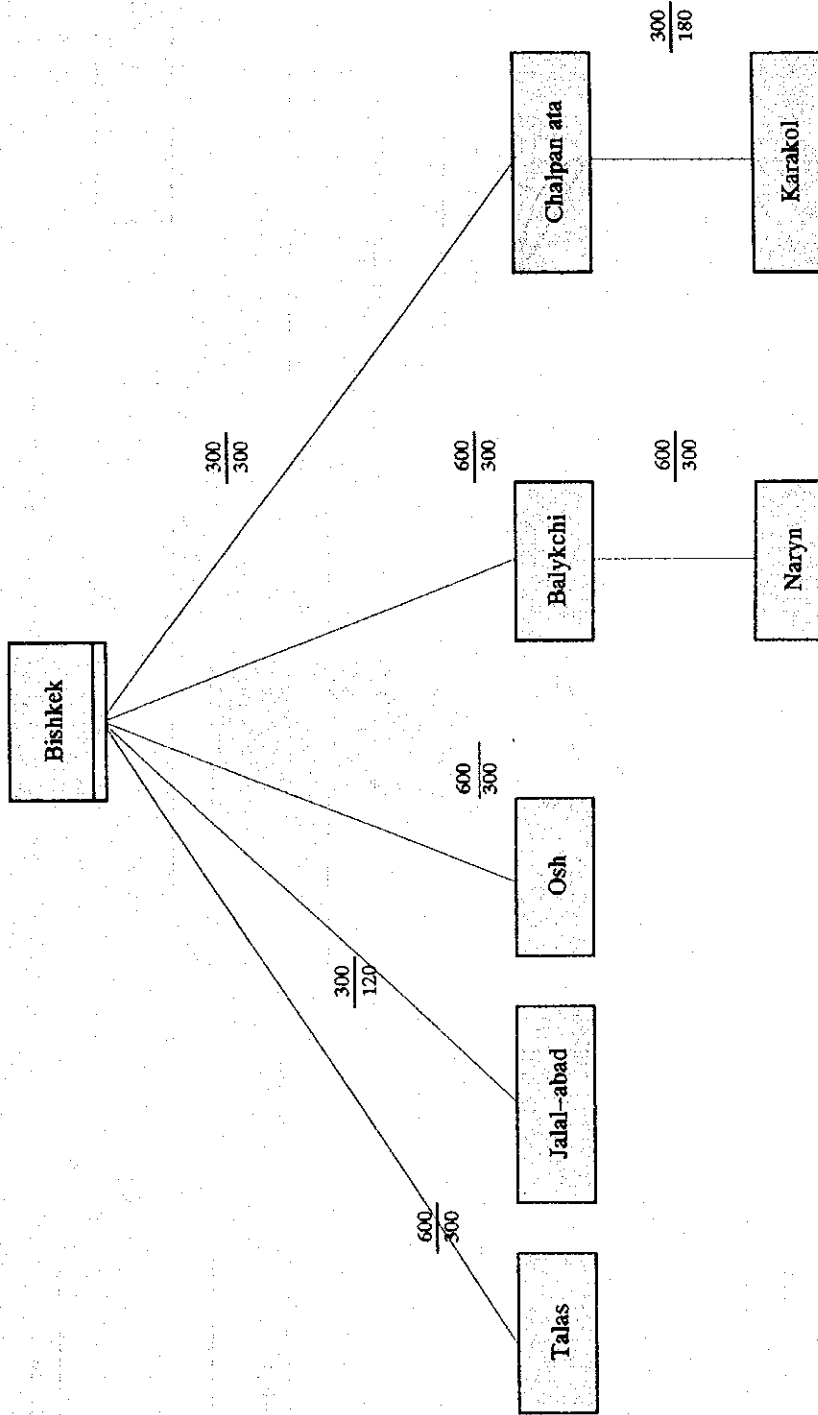
Figure 5-12 NATION-WIDE TELECOMMUNICATION NETWORK SYSTEMS DIAGRAM IN THE KYRGYZ REPUBLIC



(Number of Line Capacity / Actual Number in Use)

(Source: Ministry of Communication)

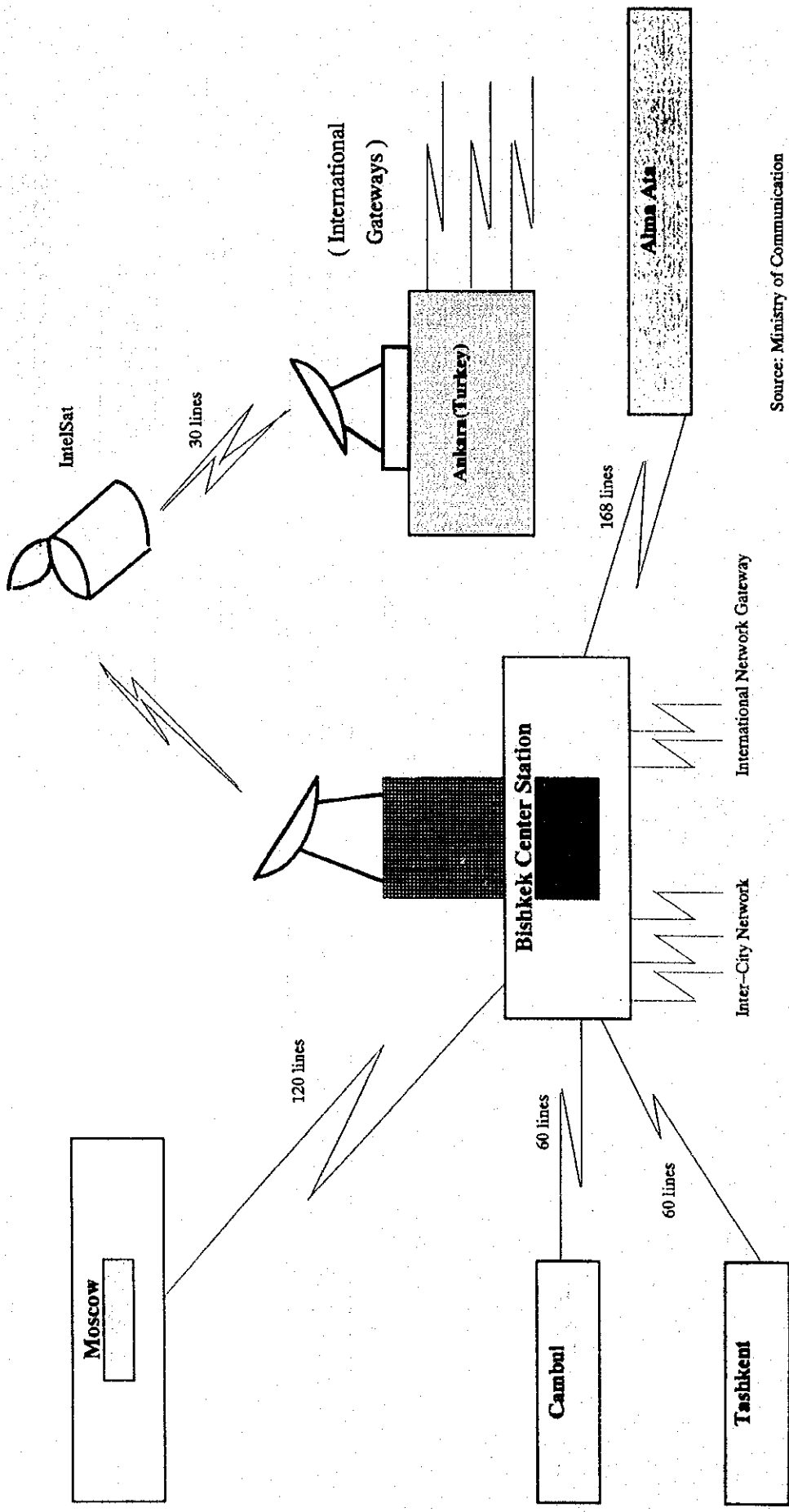
Figure 5-13 INTER-CITY NETWORK SYSTEMS DIAGRAM IN THE KYRGYZ REPUBLIC



* $\frac{\text{Number of Telephone Circuit Capacity}}{\text{Actual Number of Circuit in Use}}$

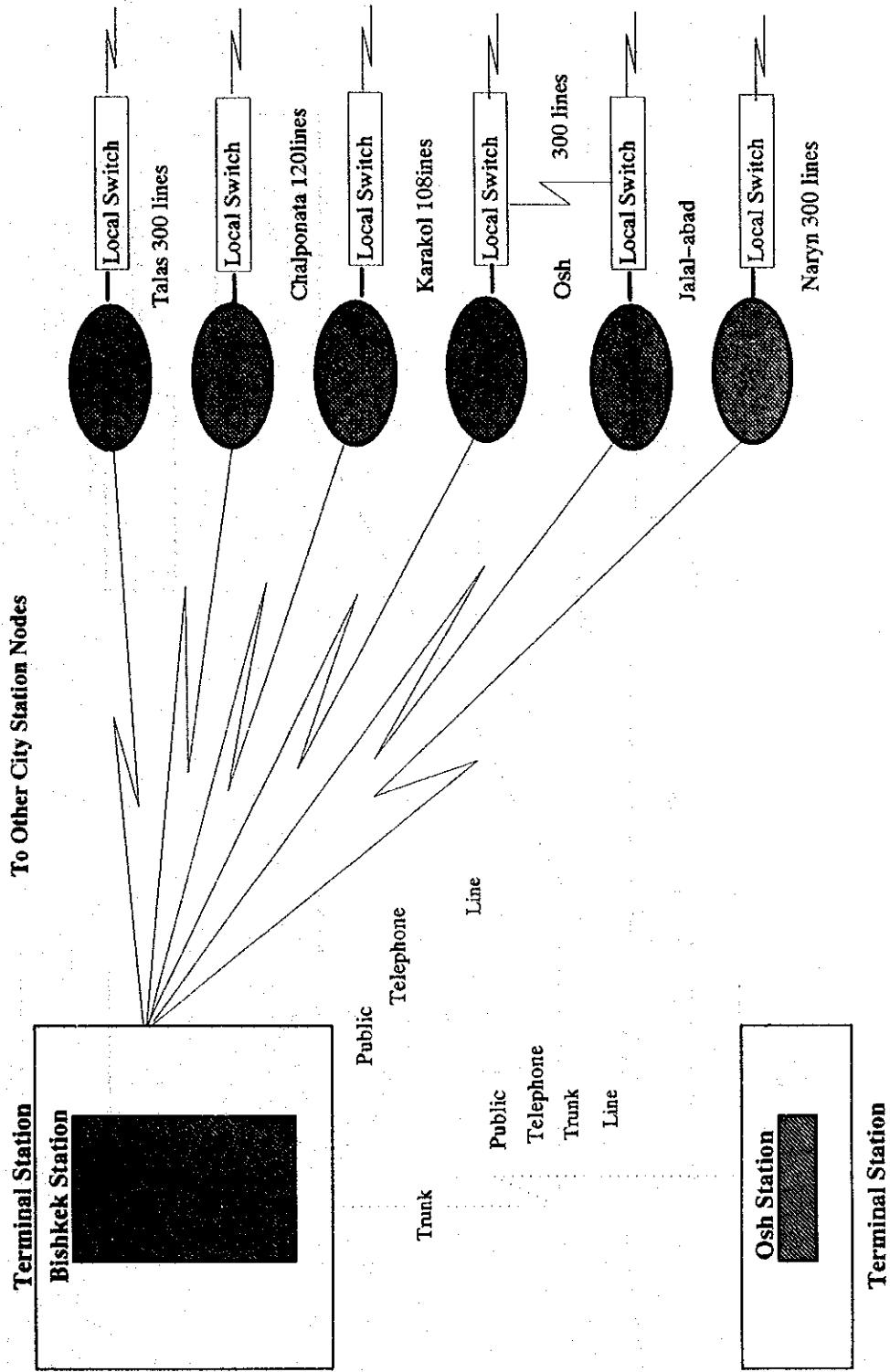
Source: Ministry of Communication

Figure 5-14 INTERNATIONAL TELEPHONE NETWORK GATEWAYS



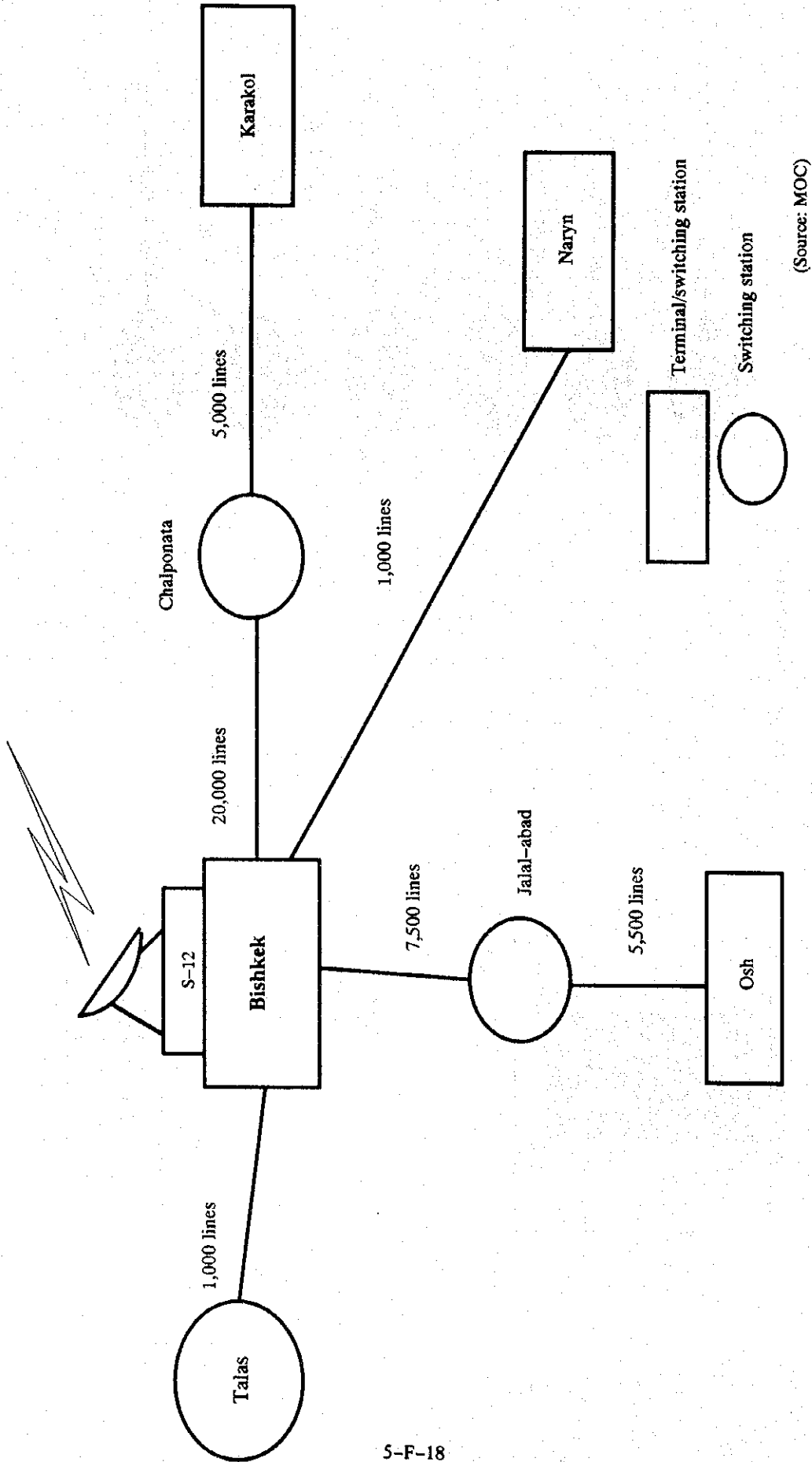
Source: Ministry of Communication

Figure 5-15 NETWORK CONFIGURATIONS OF ISKLA-I



Source: Ministry of Communication

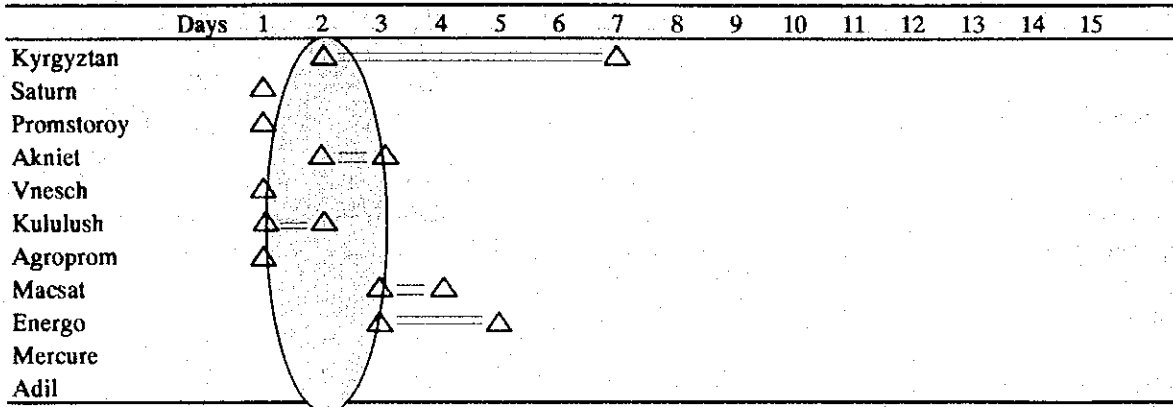
Figure 5-16 NETWORKING PLANS CONSIDERED BY WORLD BANK AND EBRD



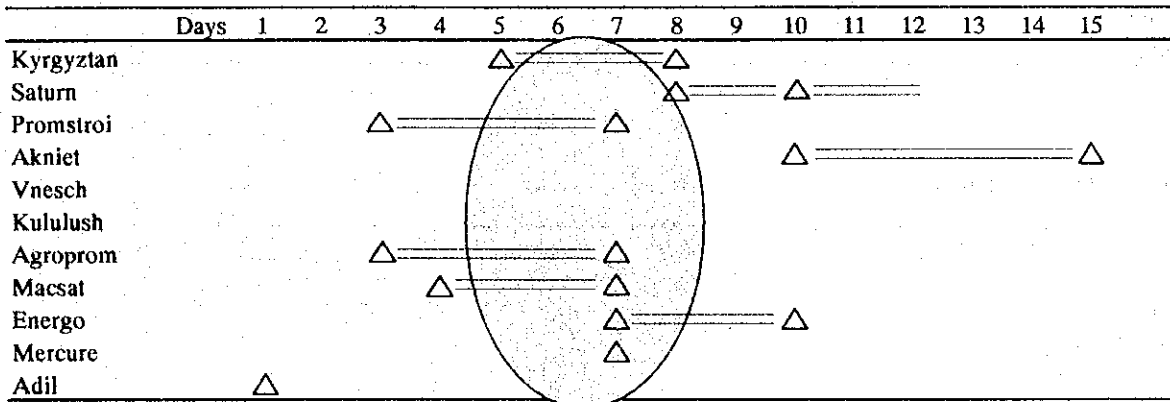
(Source: MOC)

**Figure 5-17 PAYMENT FULFILLMENT TERM ANALYSIS ANSWERS
FROM COMMERCIAL BANKS**

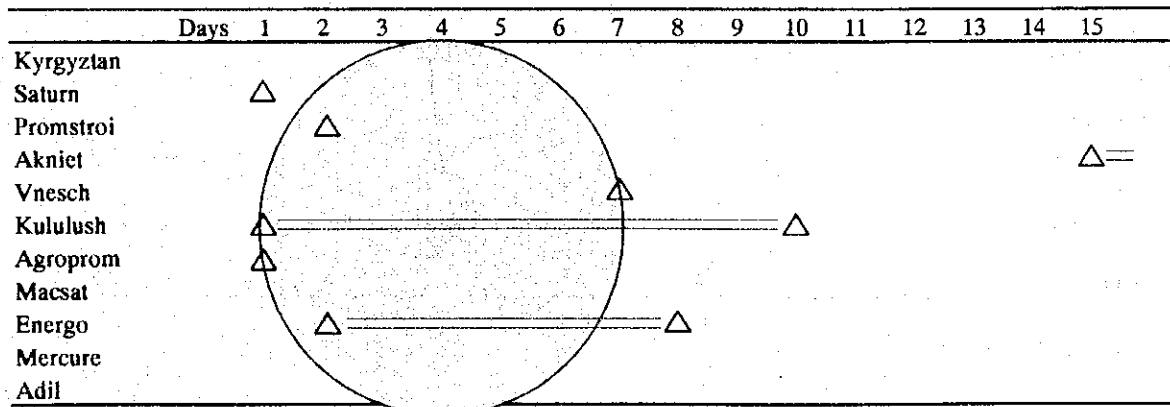
A. Send to Same Region



B. Send to Other Regions



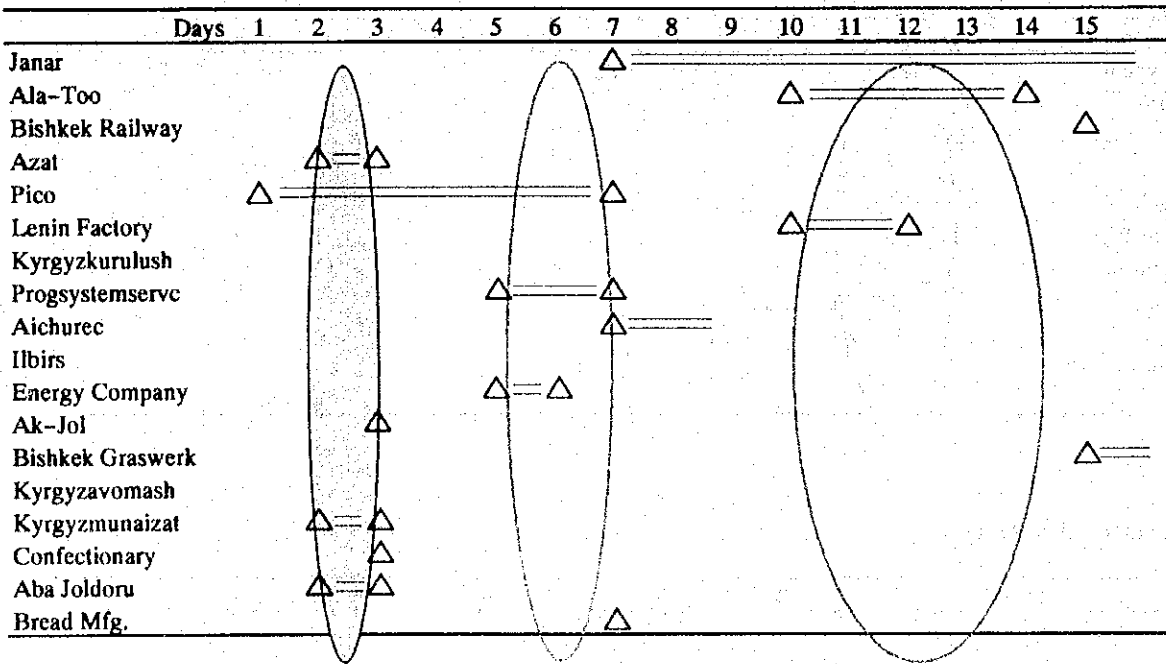
C. Send to CIS Countries



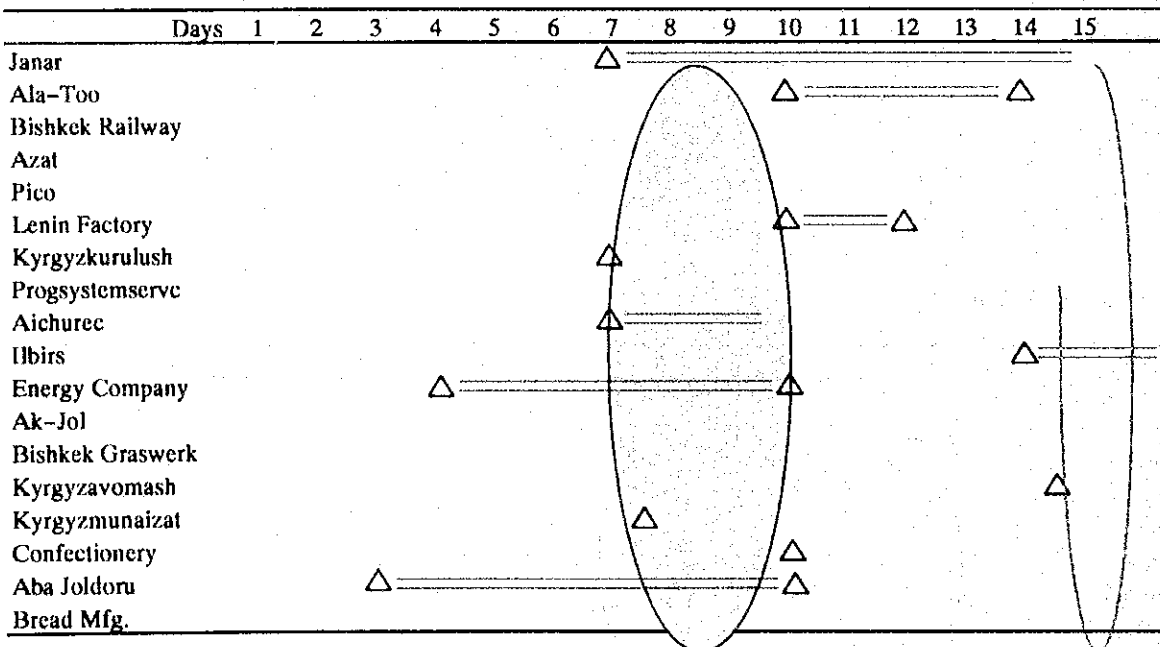
Source: JICA Study Team Jan. 1994

Figure 5-18 PAYMENT FULFILLMENT TERM ANALYSIS ANSWERS FROM CORPORATION

A. Send to Same Region



B. Send to Other Regions



Source: JICA Study Team Jan. 1994

Figure 5-19 PAYMENT FULFILLMENT

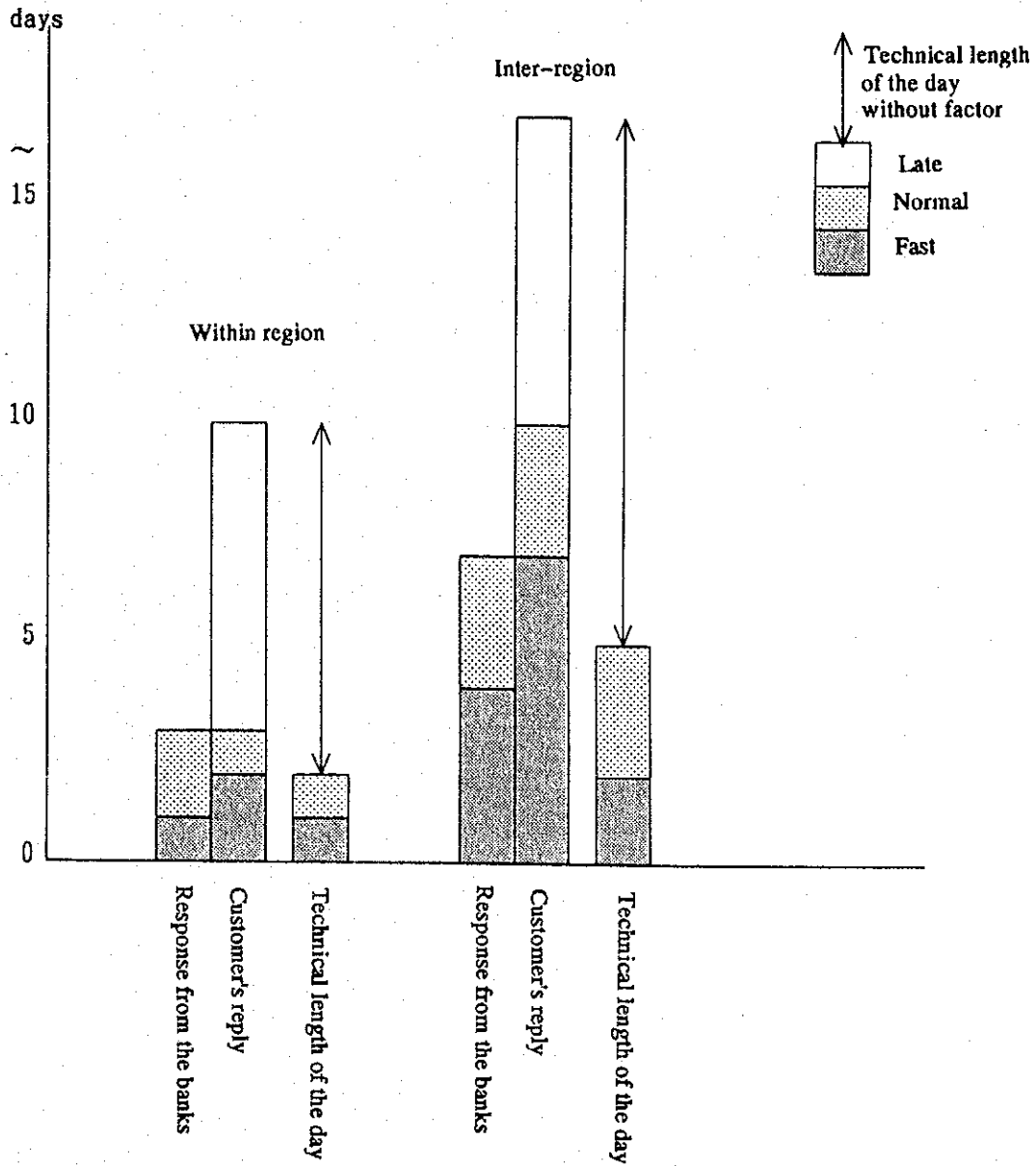
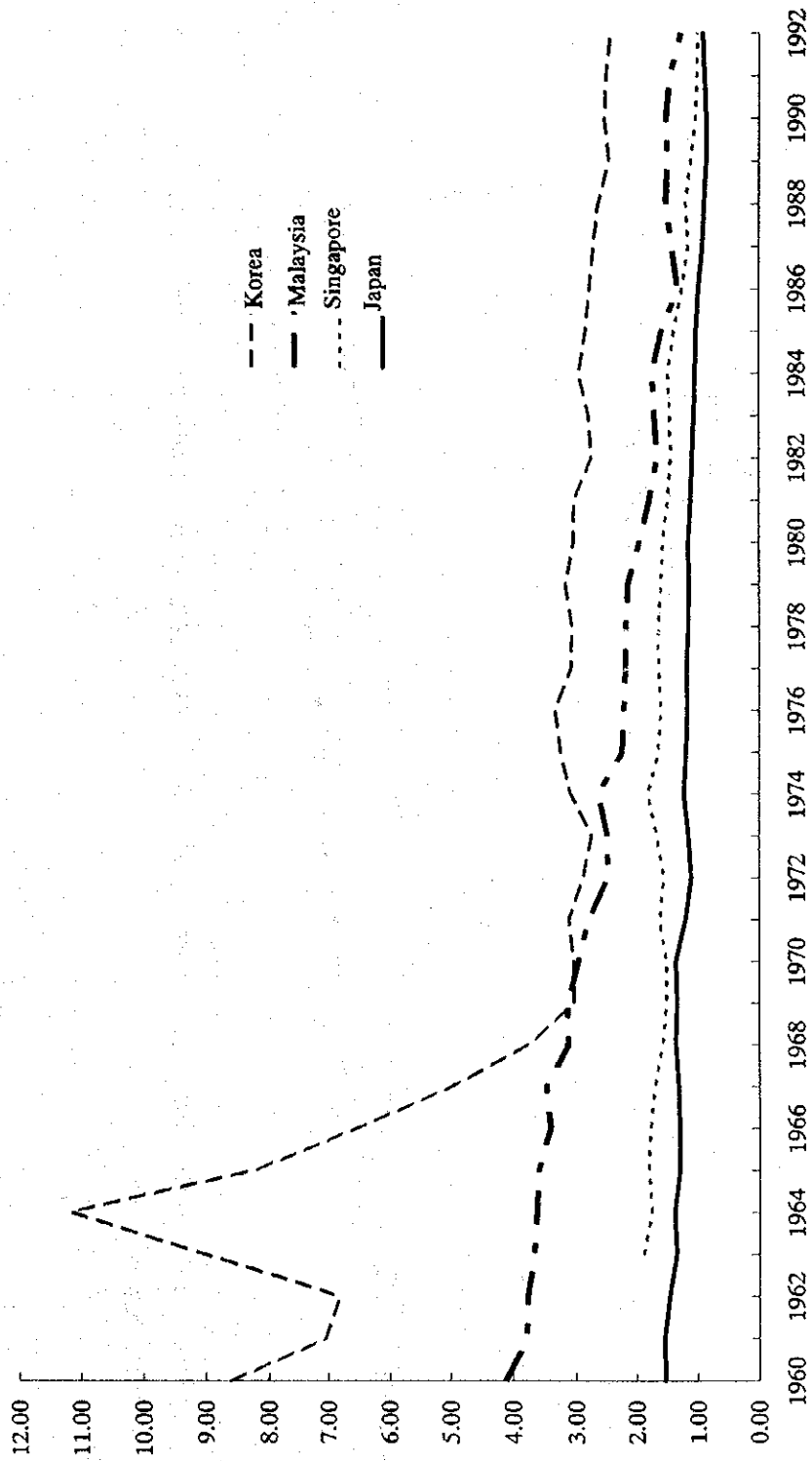
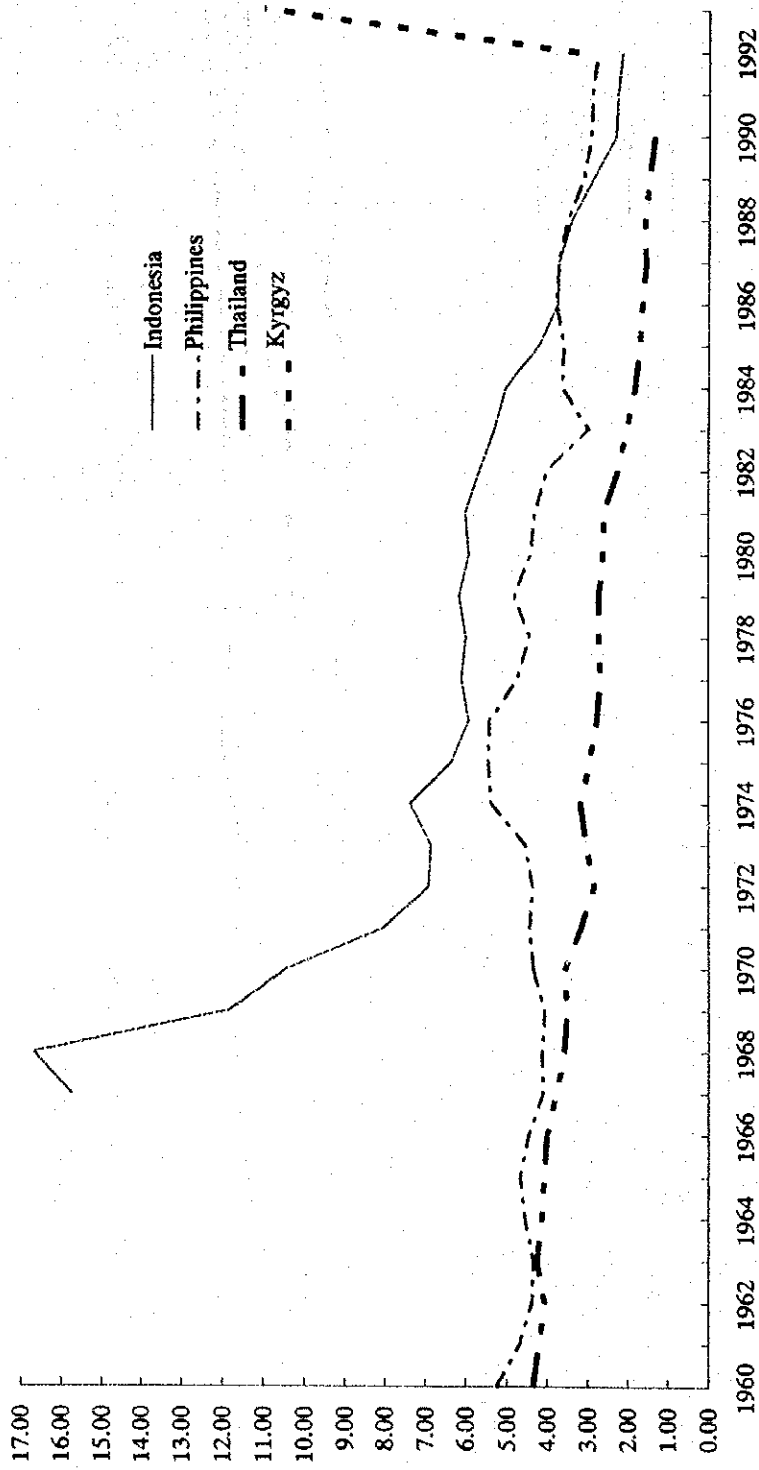


Figure 7-1 COMPARISON OF INCOME VELOCITY OF BROAD MONEY (1)



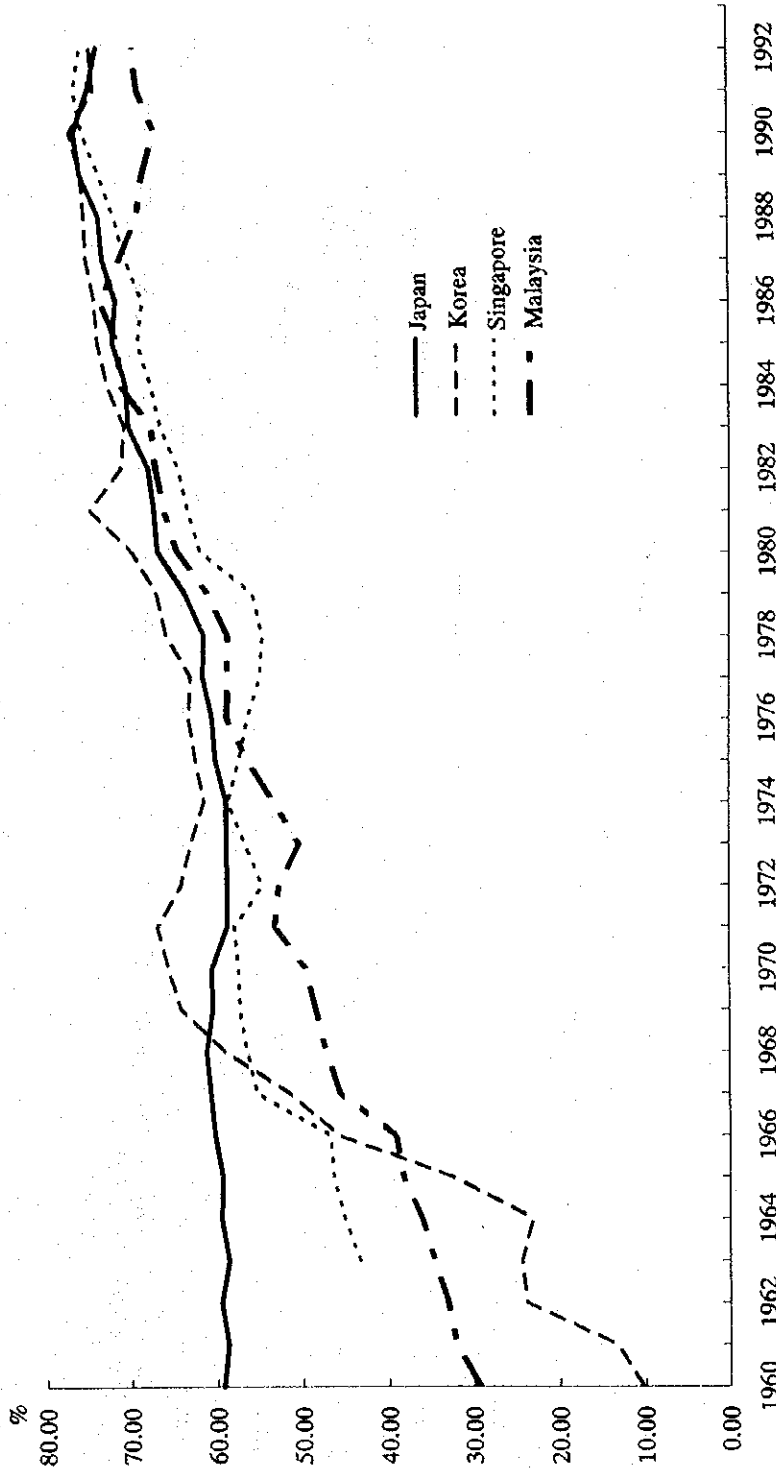
Source: IMF "IFS"

Figure 7-2 COMPARISON OF INCOME VELOCITY OF BROAD MONEY (2)



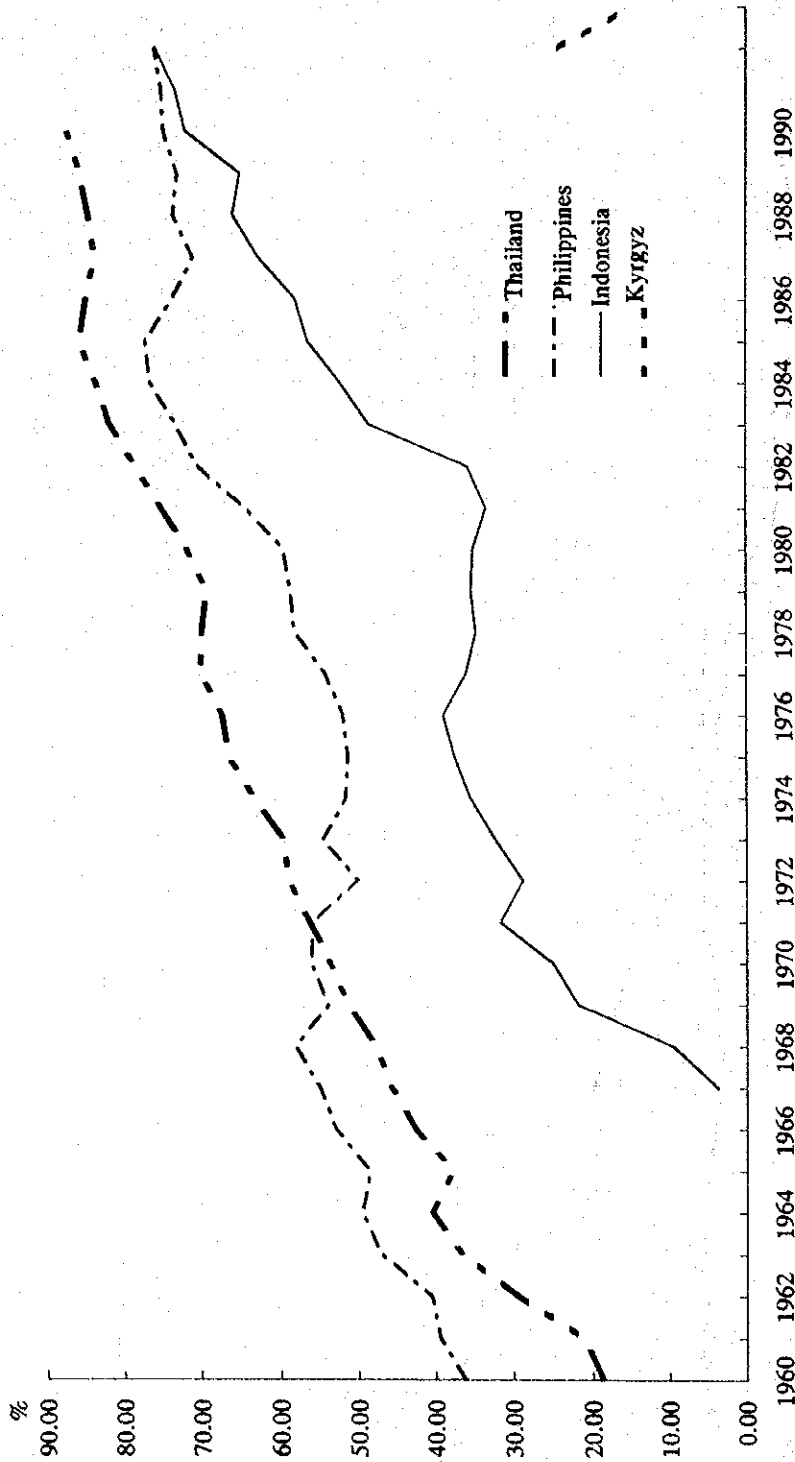
Source: IMF "IFS", NBK

Figure 7-3 COMPARISON OF QUASI-MONEY/BROAD MONEY RATIO (1)



Source: IMF "IFS"

Figure 7-4 COMPARISON OF QUASI-MONEY/BROAD MONEY RATIO (2)



Source: IMF "IFS", NBK

Figure 7-5 PERCENTAGE OF EACH SHORT-TERM MONEY MARKET OUTSTANDING TO NOMINAL GDP IN JAPAN

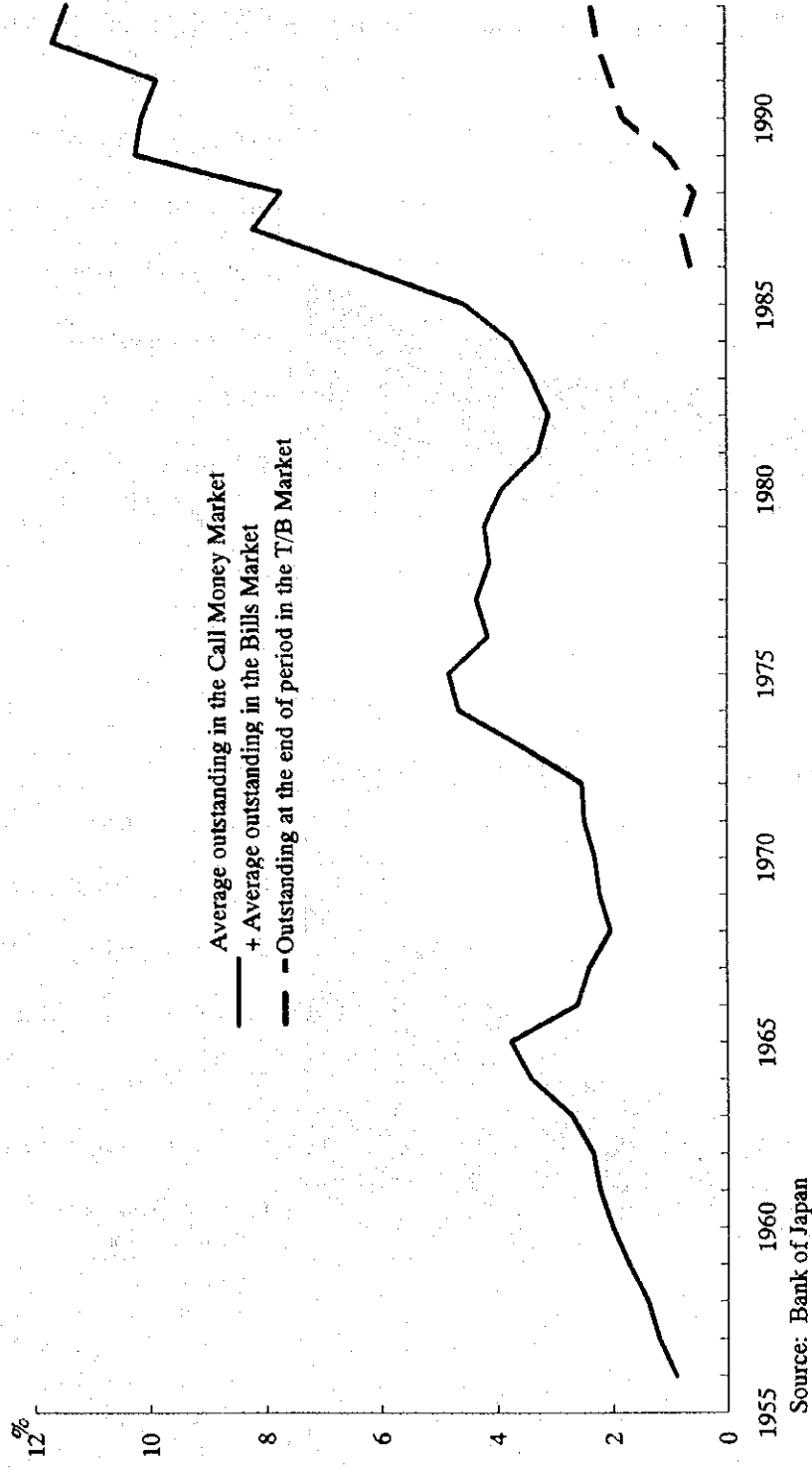
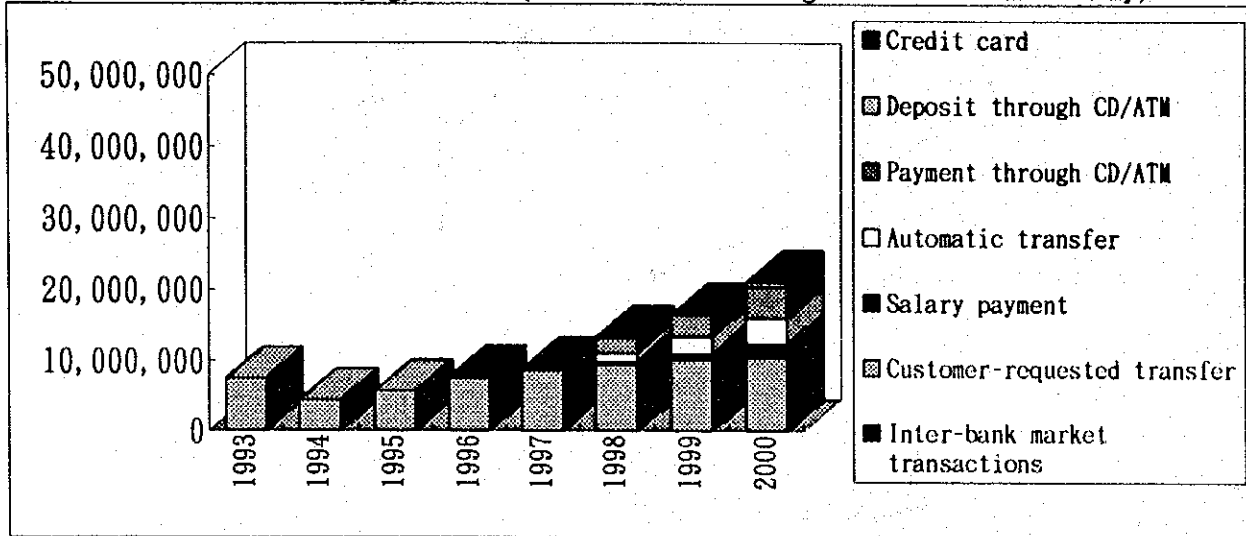
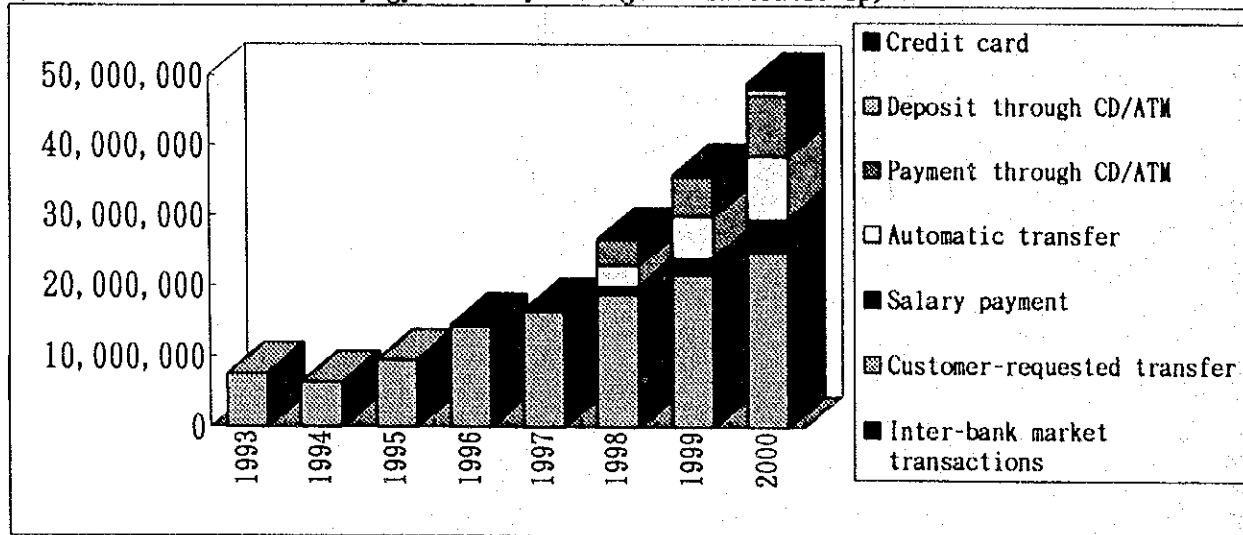


Figure 7-6 TOTAL NUMBER OF PAYMENT TANSACTIONS

(PLAN A : Case in which Kyrgyz economy continue to be stagnant or dull in economy)



(PLAN B : Case in which Kyrgyz economy will get a favorable up)



Source: Study Team

Figure 7-7 TRANSACTION VOLUME ANALYSIS

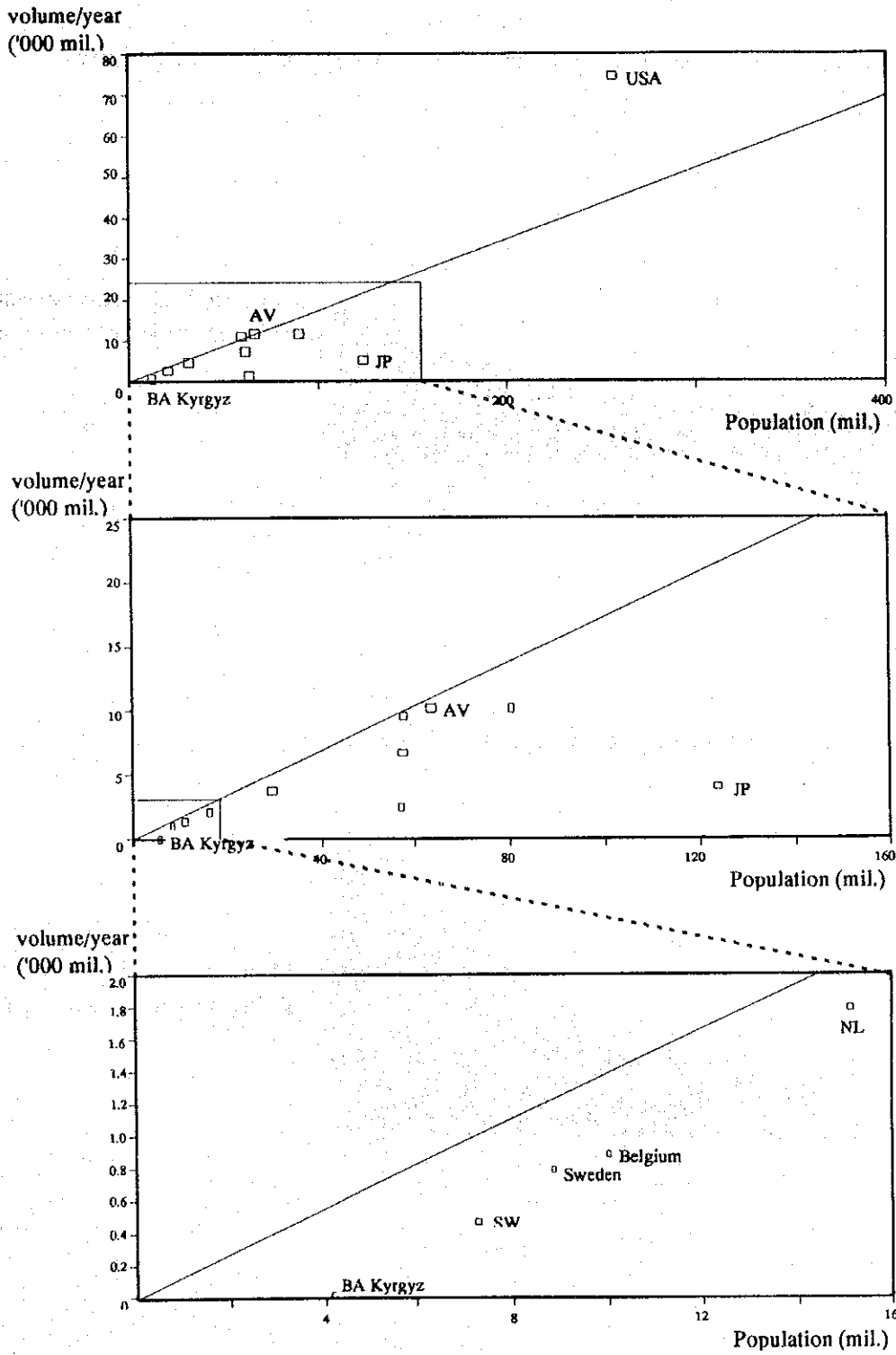
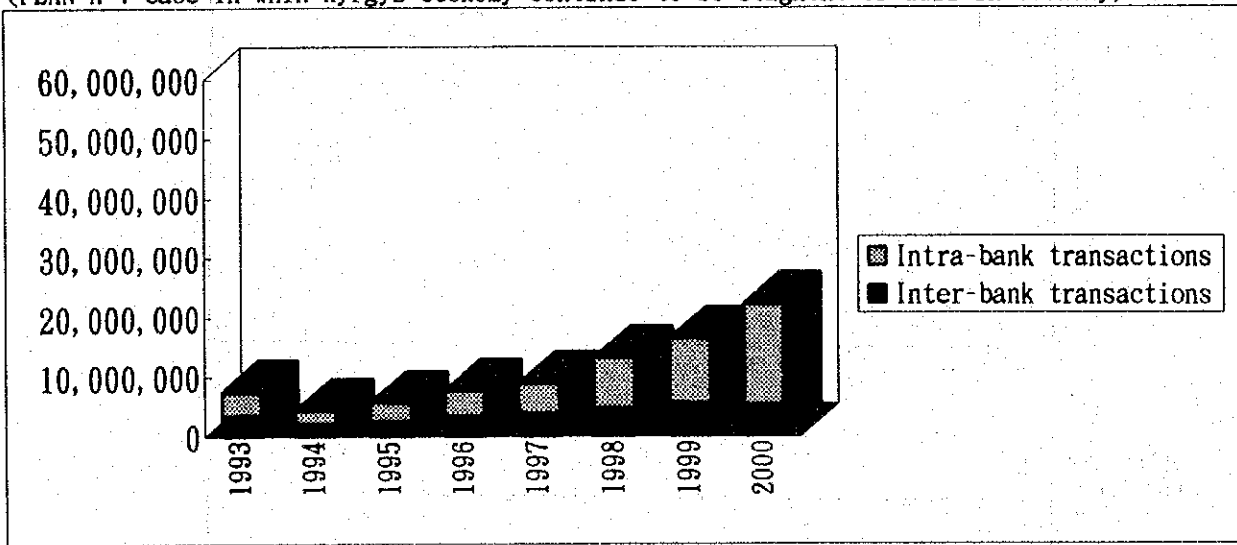
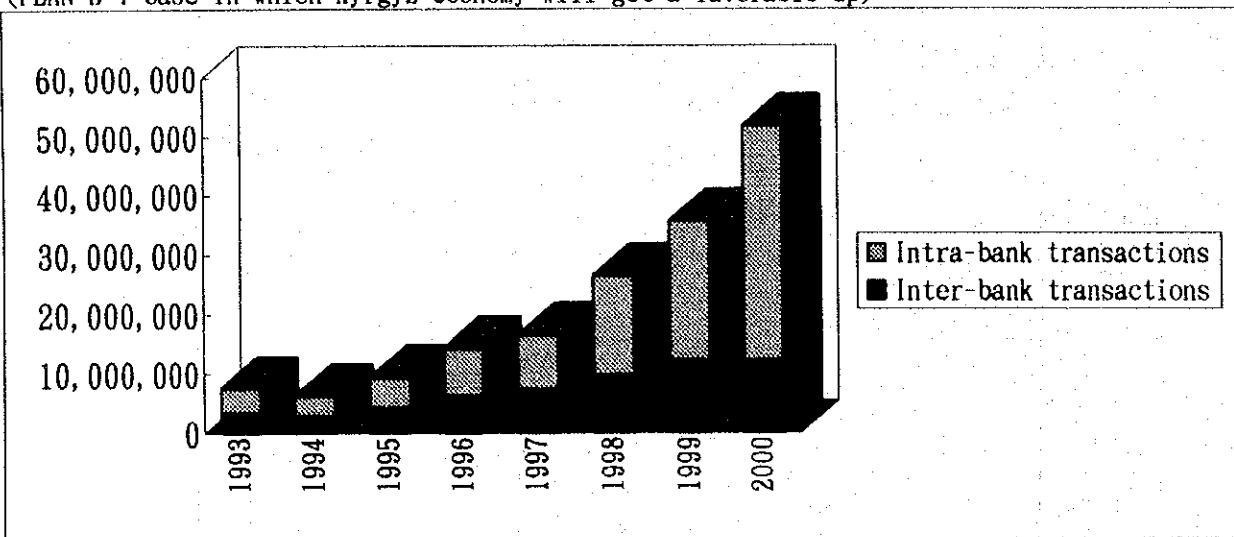


FIGURE7-8 INTRA-BANK / INTER-BANK TRANSACTIONS

(PLAN A : Case in whih Kyrgyz economy continue to be stagnant or dull in economy)



(PLAN B : Case in which Kyrgyz economy will get a favorable up)



Source: Study Team

**Figure 8-1 FINANCIAL INSTITUTIONS FOR THE FINANCIAL SYSTEM
TOWARD THE YEAR 2000**

* Central Bank (NBK)

* Governmental Financial Institutions

* Public
Financial
Institutions

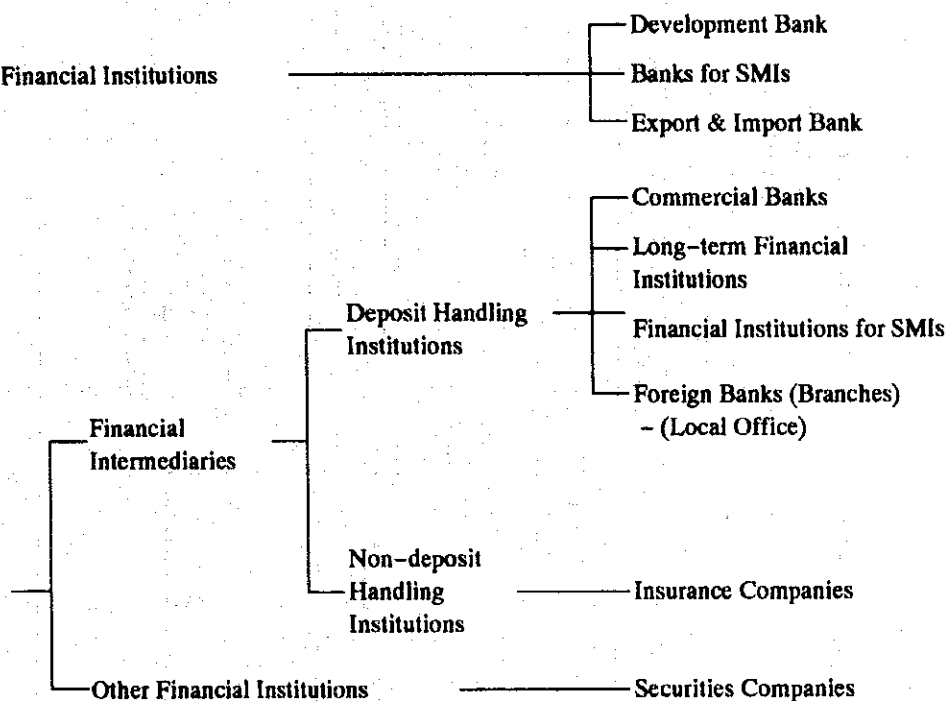


Figure 8-2 CONCEPTUAL VIEW OF THE DEVELOPMENT PROCESS OF THE FINANCIAL SYSTEM IN KYRGYZ

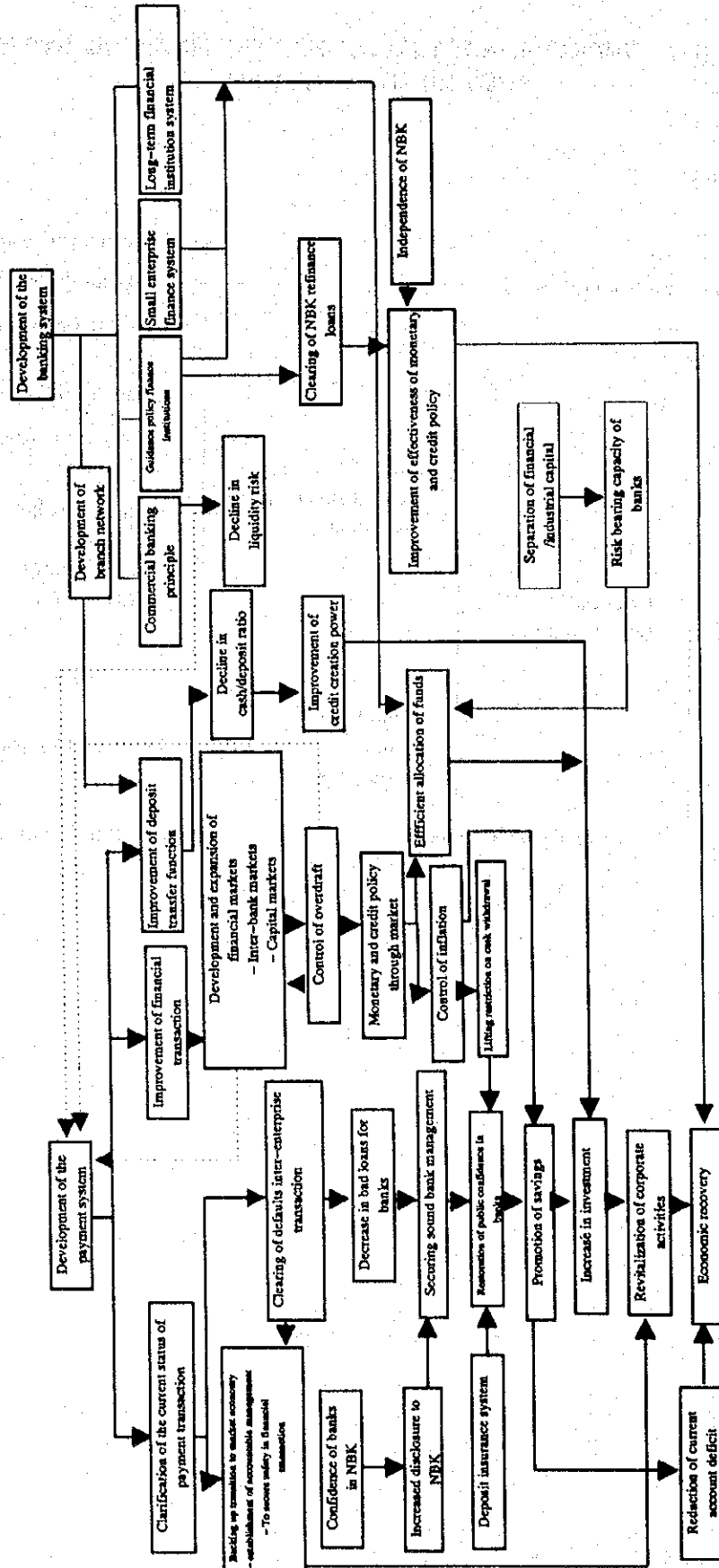
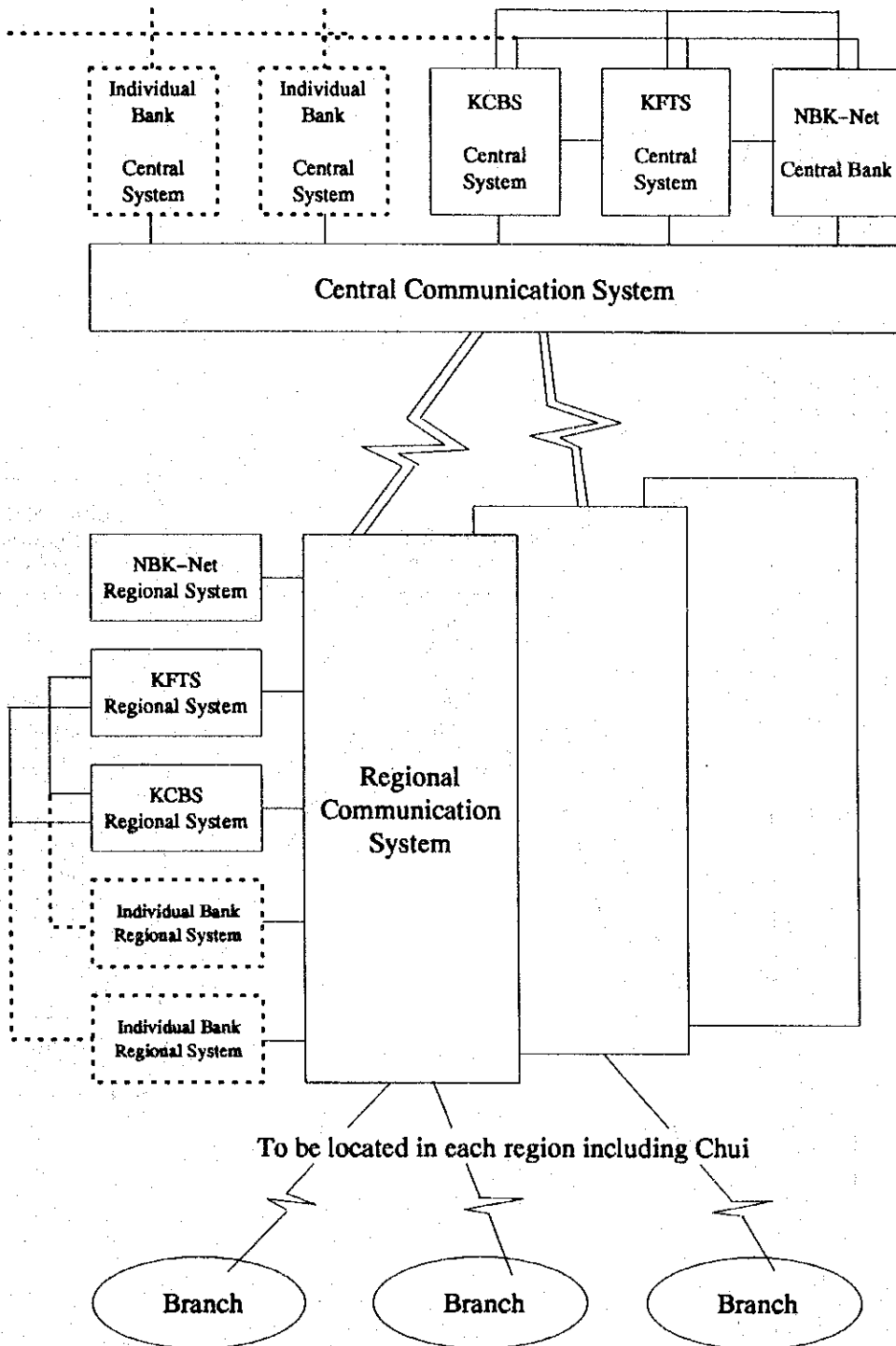
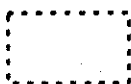


Figure 9-1 CONCEPTUAL DESIGN OF THE PAYMENT SYSTEM IN KYRGYZ

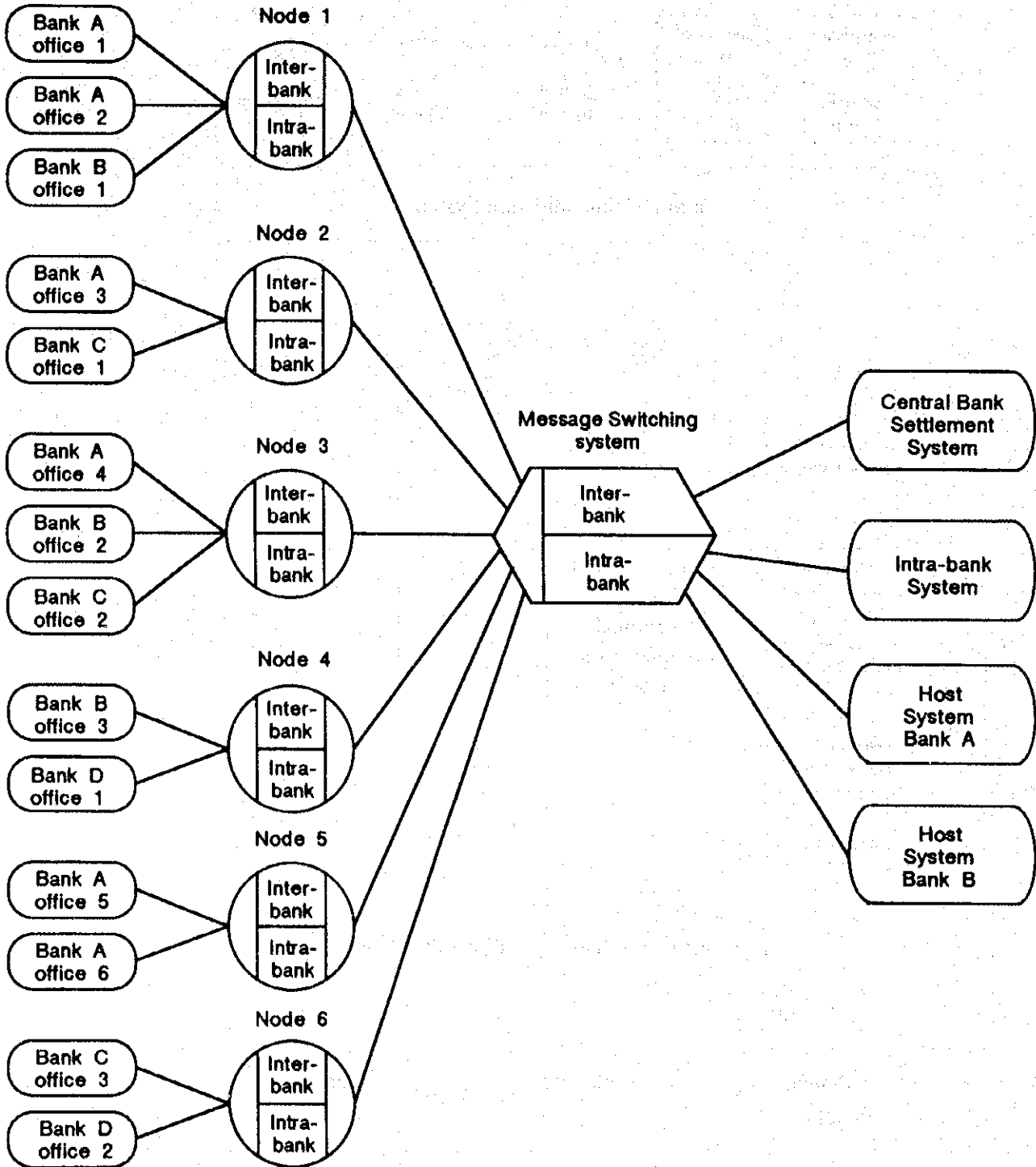


 not included in the plan

NBK-net: NBK Network System
 KFTS: Kyrgyz Fund Transfer System
 KCBS: Kyrgyz Co-Operative Banking System

Source: Study Team

Figure 9-2 NETWORK MODELING FOR INTER AND INTRA-BANK NETWORK



Node System at regional centers

Figure 9-3 NETWORK MODELING FOR CO-OPERATIVE INTRA-BANK NETWORK

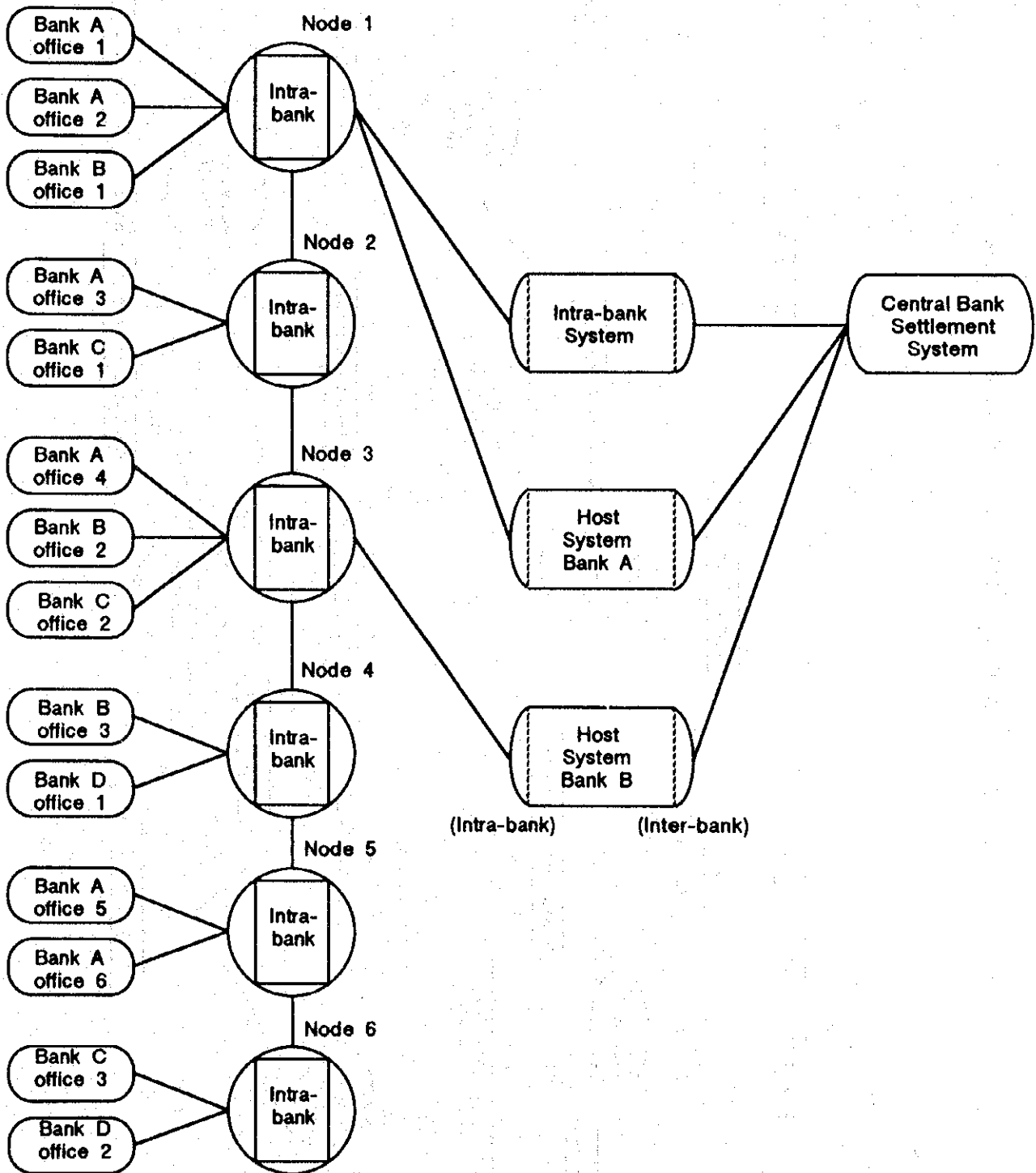


Figure 9-4 SAMPLE OF DATA - FLOW OF CUSTOMER TRANSFER

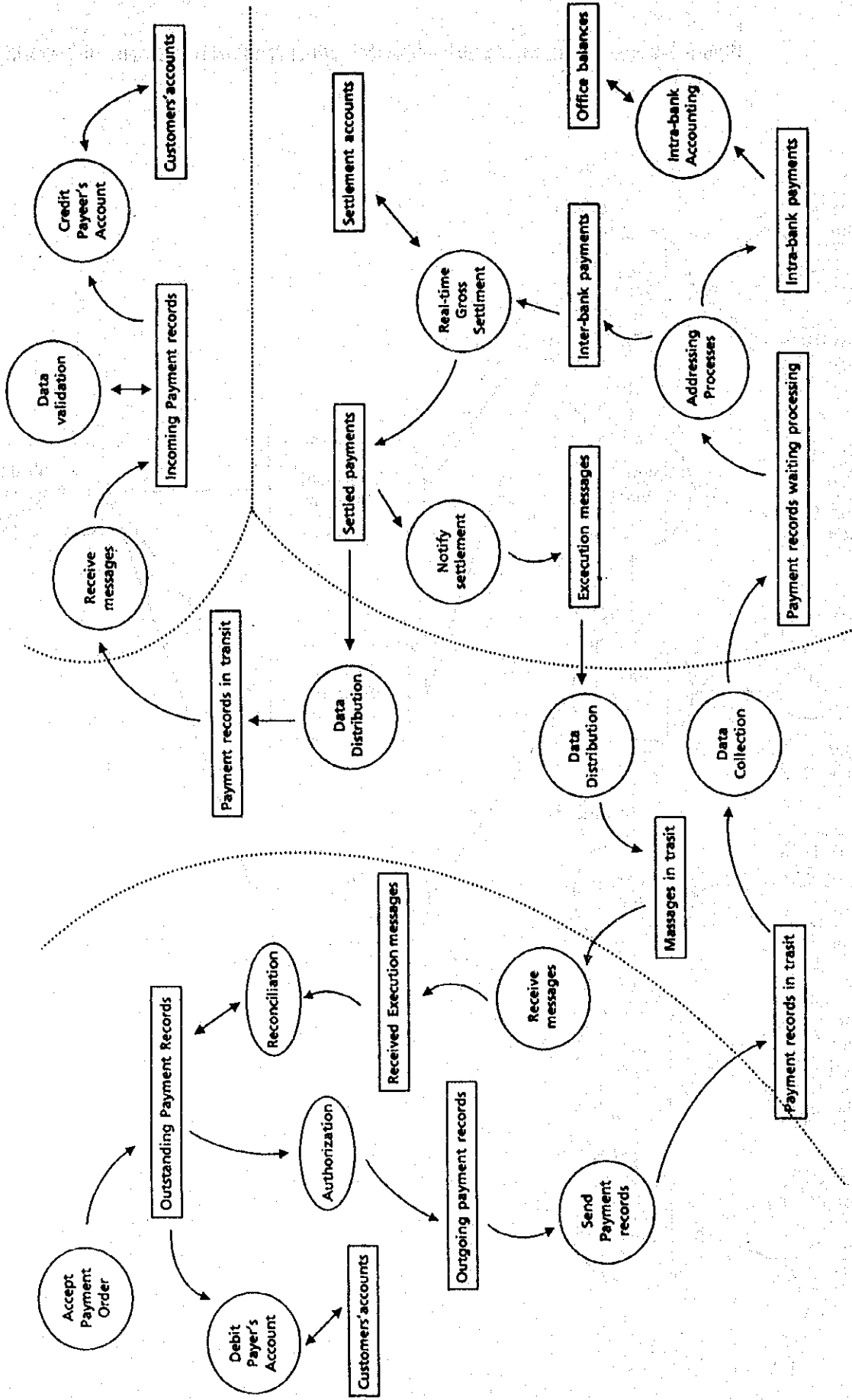
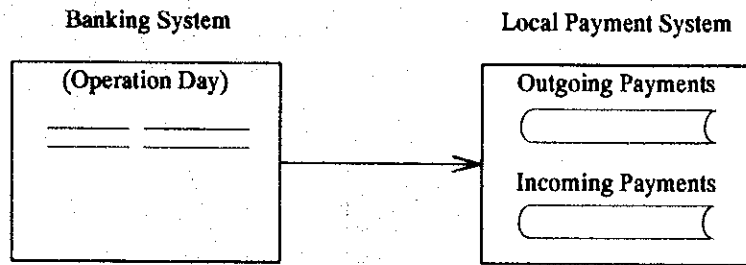


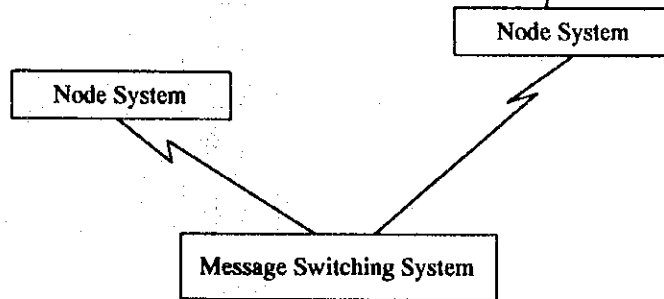
Figure 9-5

**TECHNICAL AREA AND SUBSYSTEMS FOR
COMPUTERIZED PAYMENT SYSTEM**

1. User Interface Area



2. Data Communication Area



3. Data Processing Area

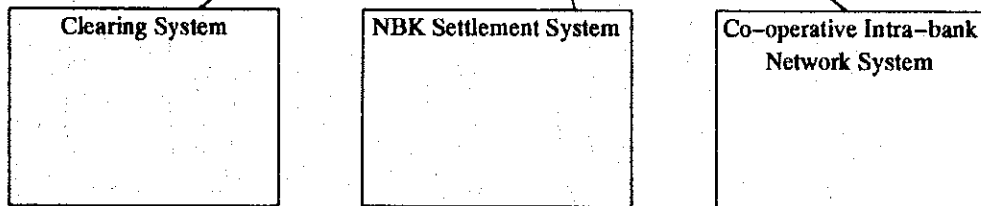


Figure 9-6 MODEL OF COMPUTER NETWORK

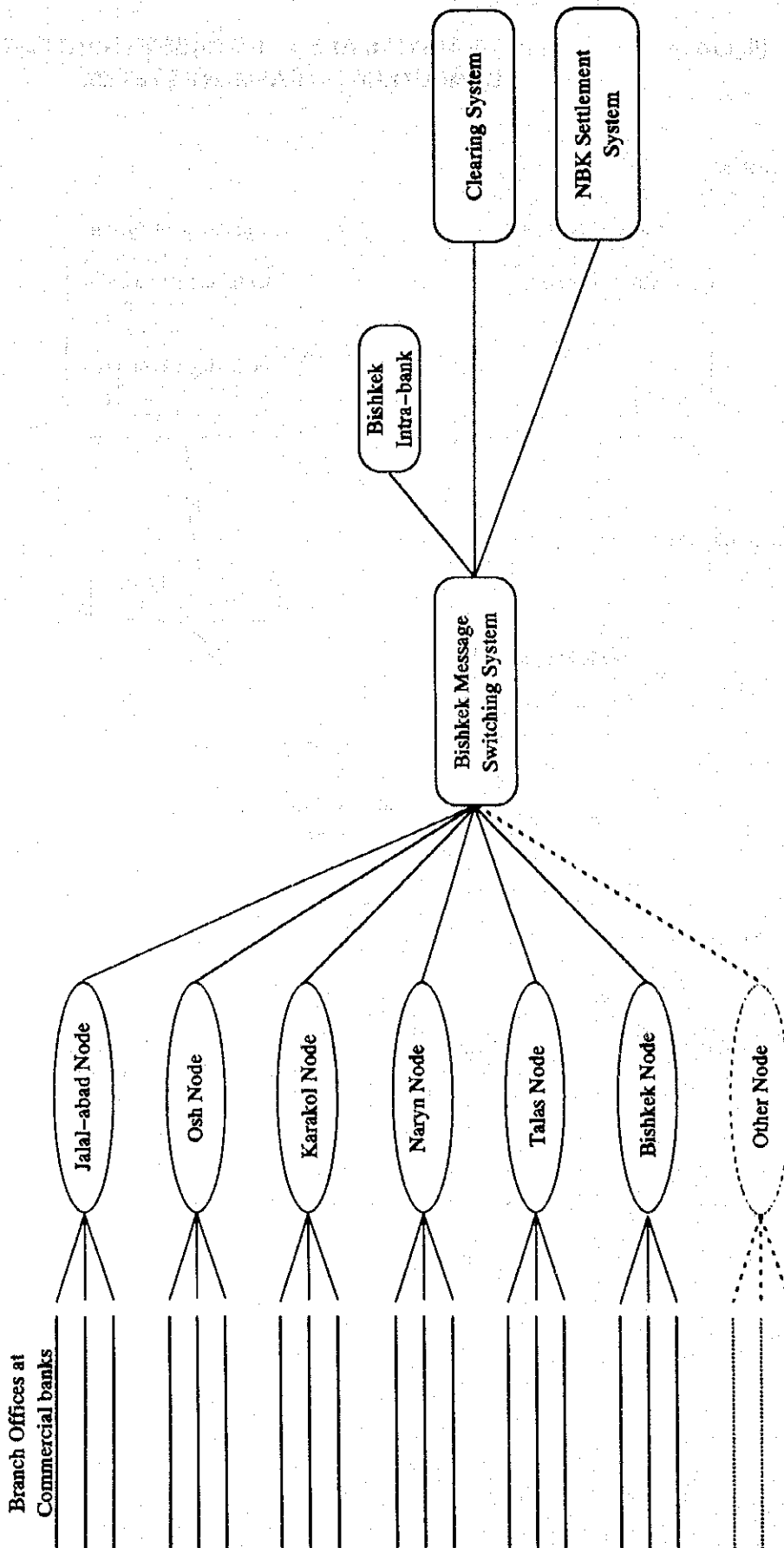
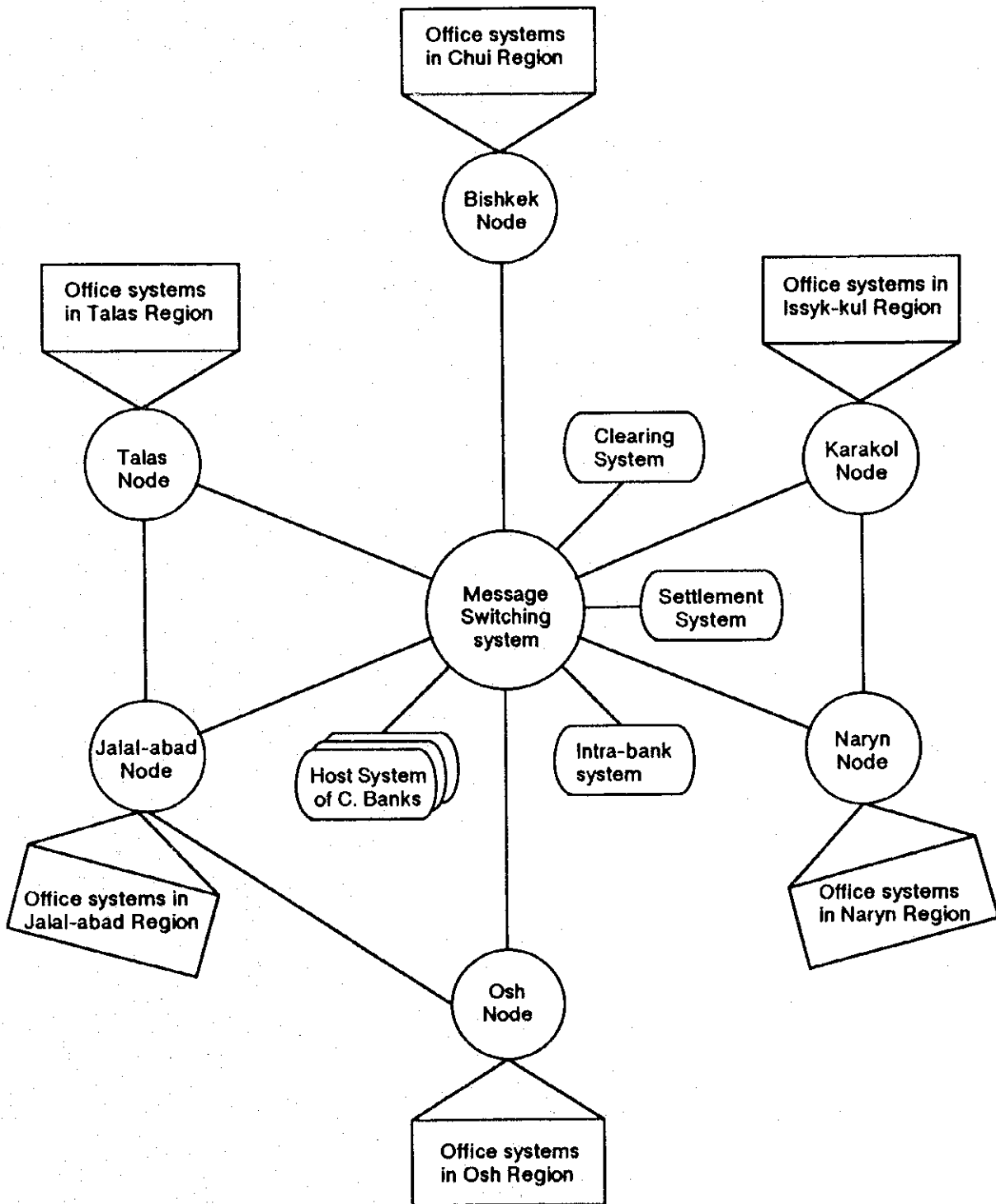


Figure 9-7 NETWORK TOPOLOGY



N.B. C. BANKS : Commercial Banks

Figure 11-1 DESIGN AREA AND THE PROCESS FOR THE PROJECT

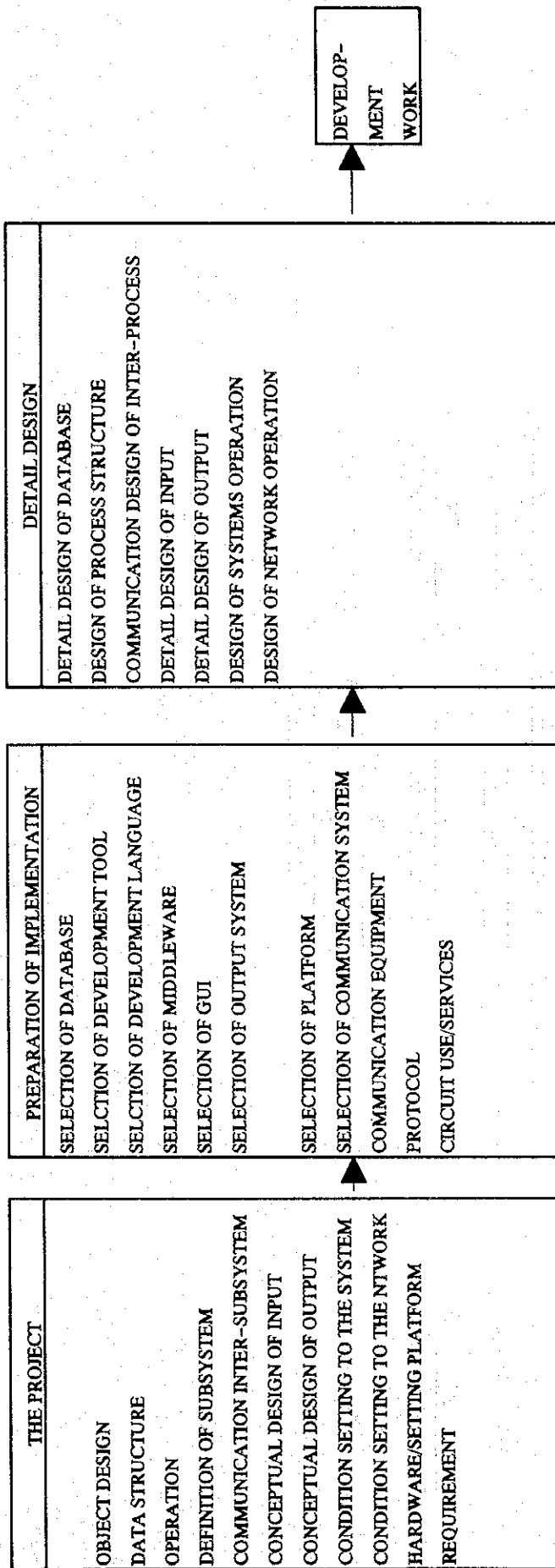


Figure 11-2 DESIGN OF THE SYSTEMS AND DEVELOPMENT METHOD

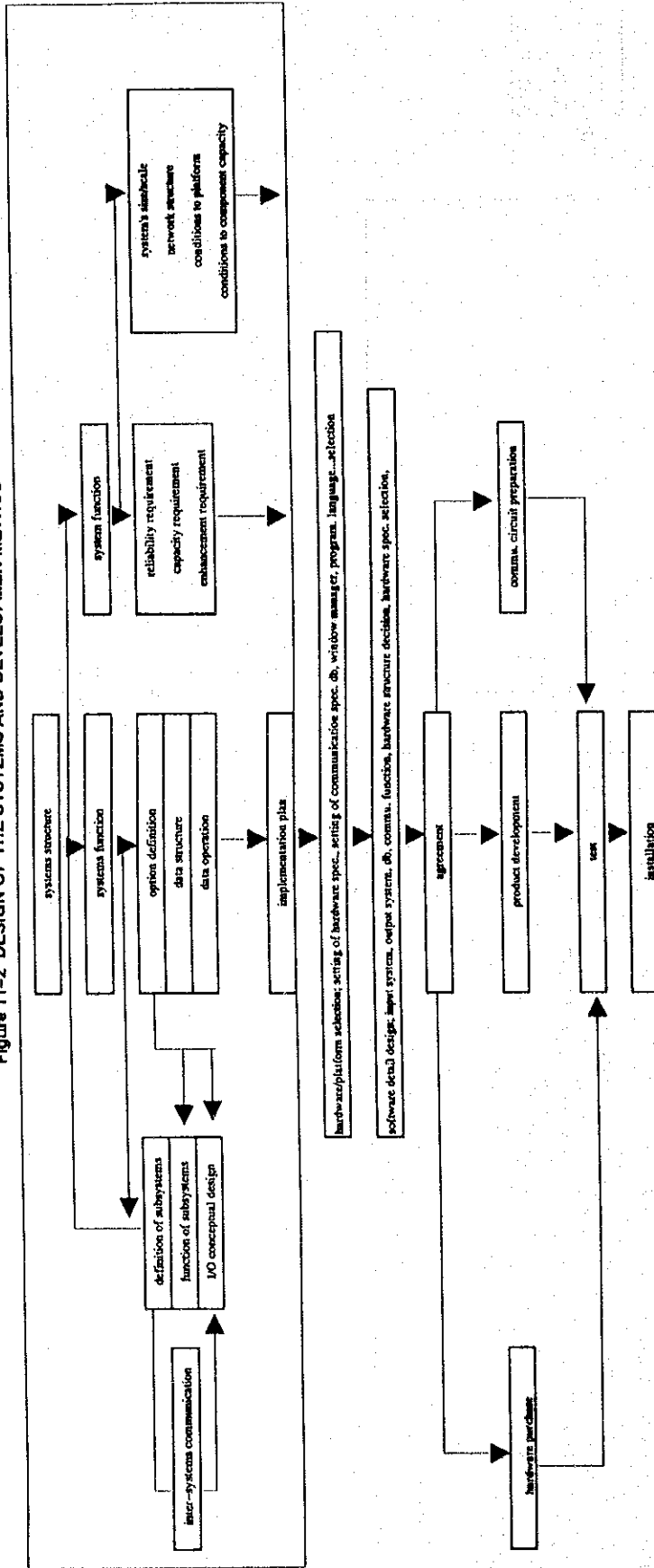
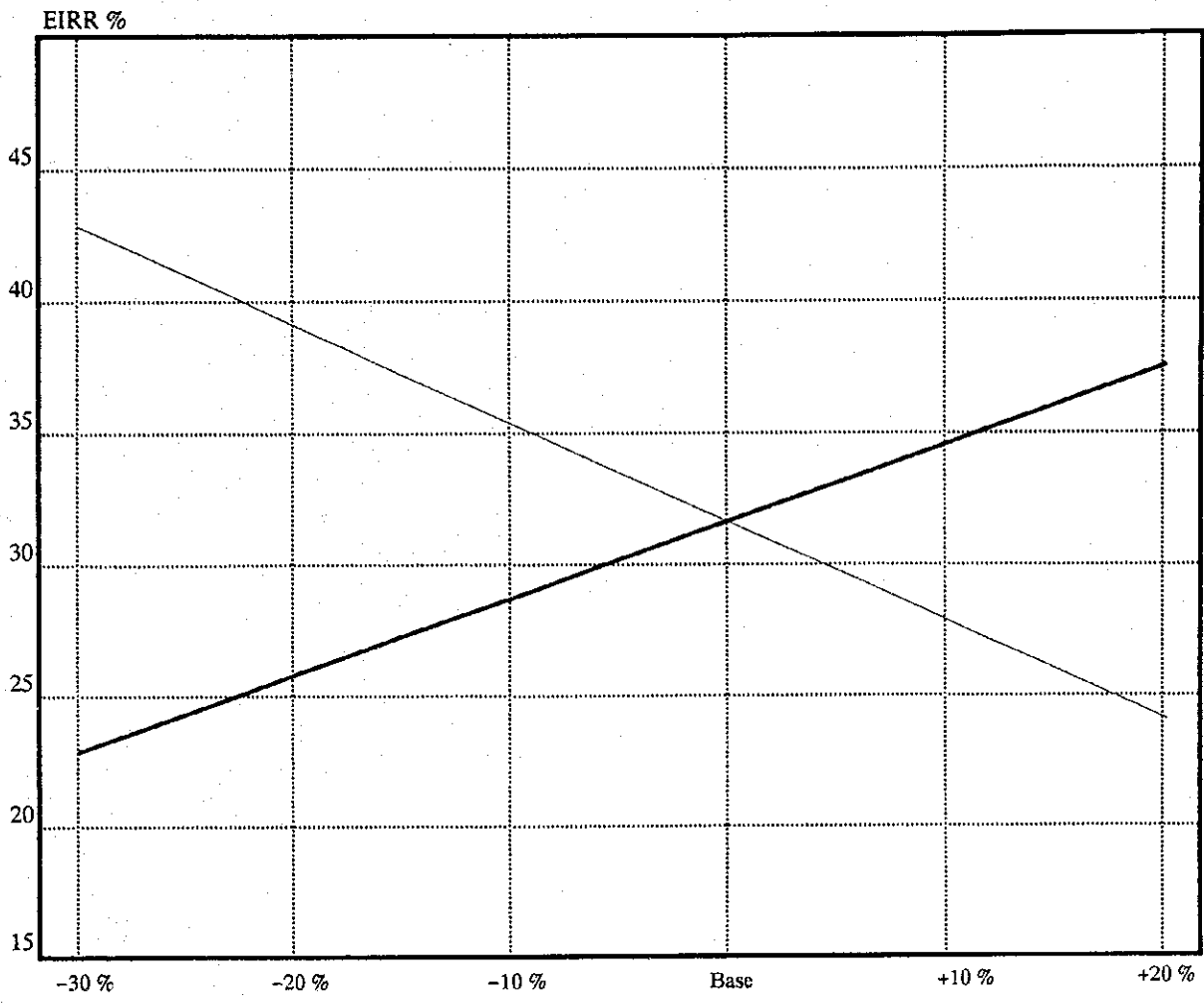
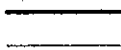


Figure 14-1 SENSITIVITY ANALYSIS OF EIRR



Benefit



Net Benefit
Investment cost

JICA

