#### **Preface**

#### **Executive Summary: Financial Stability and Risk Assessment**

#### **Part I: Thematic Content**

- 1. Role of Government in Facilitating the Development of the Bond Market
- Government Borrowing from the Banking System: Implications for Monetary and Financial Stability
- 3. Role of the Government in Promoting Savings: Central Directorate of National Savings

#### **Part II: Performance Review**

- 4. Stability of the Banking System
- 5. Performance Review of Non-Bank Financial Institutions
- 6. Performance and Stability Review of the Insurance Sector
- 7. Stability Assessment of Financial Markets
- 8. Payment and Settlement System

#### Annexes

#### **Acronyms**

1	Role	of Gove	rnment in Facilitating Development of the Bond Market	1
	1.1	Introdu	action	1
	1.2	State of	f the Debt Market in Pakistan	3
	1.3	Impedi	ments to the Development of a Corporate Debt Market	5
	1.4	Introdu	action of the Electronic Bond Trading Platform	6
	1.5	The Wa	ay Forward	7
2		ernment ncial Sta	Borrowing from the Banking System: Implications for Monetary and bility	10
	2.1	Introdu	ıction	10
	2.2	Public I	Finances	12
		2.2.1	Fiscal Position and Need for Borrowings	12
		2.2.2	Financing Mix of Budget Deficit	14
	2.3	Borrow	ring from Banking System	17
		2.3.1	Implications of Government Borrowing from Central Bank: Theoretical and Practical Underpinnings	17
		2.3.2	Government Borrowing from Scheduled Banks	20
	2.4	Presenc	ce of Government and Behavior of Financial Markets	26
		2.4.1	Risk-Averse Nature of Banks	26
		2.4.2	Private Sector Credit and Growth	27
	2.5	Implica	tions for Monetary and Financial Stability	30
3	Role	of Gove	rnment in Promoting Savings: Central Directorate of National Savings	37
	3.1	Introdu	iction	37
	3.2	Brief H	istory	37
	3.3	NSS Fea	atures and Mobilization Trends	37
	3.4	NSS and	d Deficit Financing	40
	3.5	Implica	tions of NSS for the Financial Sector	41
	3.6	Launch	of National Saving Bonds	44
	3.7	Conclus	sion	46
4	Stab	ility of th	ne Banking System	49
	4.1	Introdu	action	49
	4.2	Asset a	nd Funding Structure	51
	4.3	Assessr	ment of Risks	54
		4.3.1	Credit Risk	54
		4.3.2	Market Risk	60
		4.3.3	Operational Risk	66
		4.3.4	Liquidity Risk	67
	4.4	Risk Ab	osorption Capacity of the Banking System	71
		4.4.1	Profitability	72
		4.4.2	Solvency and Capital Adequacy	75
		4.4.3	Resilience of the Banking Sector	77
	4.5	Conclus		79

5	Perf	ormance	e Review of Non-Bank Financial Institutions	85		
	5.1	Overvi	ew	85		
	5.2	Regula	tory Developments	86		
	5.3	Operat	ing Environment	86		
	5.4	Perform	mance Review	87		
		5.4.1	Investment Finance Companies	89		
		5.4.2	Leasing	91		
		5.4.3	Venture capital Investment	91		
		5.4.4	Modarabas	93		
		5.4.5	Housing Finance	94		
		5.4.6	Development Finance Institutions	96		
		5.4.7	Mutual Funds	98		
6	Perfo	ormance	e and Stability of the Insurance Sector	101		
	6.1	Introdu		101		
	6.2	Overvi	ew of Insurance Sector	102		
	6.3		Government in the Insurance Sector	103		
	6.4		mance Review of Life Insurance	105		
		6.4.1	Capital Structure of Life Insurance	107		
		6.4.2		107		
		6.4.3	Life Insurance Business – Claims and Premiums	108		
		6.4.4	Life Insurance Financial Soundness	108		
	6.5 Performance Review of Takaful			109		
	6.6		mance Review of Non Life insurance	109		
		6.6.1	Equity Structure of Non Life Insurance	109		
		6.6.2	Premiums and Claims of Non Life Insurance	110		
		6.6.3	Concentration in Non-Life business	110		
		6.6.4	Performance of State Owned Insurance	111		
		6.6.5	Non Life Insurance Profitability	111		
		6.6.6	Non-Life Insurance Financial Soundness	111		
	6.7		mance Review of Reinsurance Sector	113		
	6.8	Conclu	sion	113		
7	Stability Assessment of Financial Markets					
	7.1	•	Market	118		
		7.1.1	Developments in the Money Market	118		
		7.1.2	Depth and Efficiency in the Market for Government Securities	124		
	7.2	7.1.3	Conclusion	131		
	7.2	7.2.1	n Exchange Market	131		
			Foreign Exchange Reserves	133		
		7.2.2	Exchange Rate	135		
		7.2.3 7.2.4	Forward Swap Points Conclusion	137 138		
	7.3		Markets	138		
	7.3	7.3.1	Equity Markets	138		
		7.3.1	Corporate Debt Market	130		
		7.3.2	-	144		
		7.3.3	Corporate Financing Patterns	145		

		7.3.4	Conclusion	145
8	Payn	nent and	Settlement System	147
	8.1	Retail P	Payment System	147
		8.1.1	Paper-based Transactions	149
		8.1.2	E-banking Activities	150
	8.2	Large V	alue Payment System in Pakistan: Modalities and Operations of PRISM	153
		8.2.1	Major Operations of PRISM	154
		8.2.2	Liquidity Management and RTGS/PRISM	158
		8.2.3	Major Sources of Intra-day Liquidity Pressure: Role of Policy Actions	161
		8.2.4	Future Initiatives	162
	8.3	Conclus	sion	162

## **List of Tables**

1	Role	of Government in Facilitating Development of the Bond Market	1
	1.1	Capital Markets in Asian Countries	1
	1.2	Growth of Local Currency Bond Market in Emerging East Asian Economies	3
	1.3	Listed Corporate Sector Outstanding Debt	4
2		rnment Borrowing from the Banking System: Implications for Monetary and ncial Stability	10
	2.1	International Comparison of Fiscal Indicators 2009	12
	2.2	Summary of Consolidated Public Finance	13
	2.3	Sector-wise Contribution in FY10	13
	2.4	FBR Tax Proceeds (share in total collection)	13
	2.5	Share in Non-tax Revenue Collection	14
	2.6	Share in Net Govt. Budgetary Borrowing (on cash basis) from the Banking System	17
	2.7	Quarterly Trend of T-Bill Auctions FY10	21
3	Role	of Government in Promoting Savings: Central Directorate of National Savings	37
	3.1	NSS Indicators	37
	3.2	Profile of Selected NSS Instruments	38
	3.3	Share of various NSS Instruments in outstanding NSS Stock	39
	3.4	Return Structure of Bank Deposits, Government Securities and NSS Instruments	40
	3.5	Trends in NSS and Bank Deposits	43
4	Stabi	lity of the Banking System	49
	4.1	Measures of Concentration	53
	4.2	Segment wise Distribution of Loans	55
	4.3	Loan Classification by end-use for Corporate and SMEs	55
	4.4	Classification of Advances by Borrowers	56
	4.5	Distribution of Loans by Size	57
	4.6	Infection Ratio by Sectors	57
	4.7	Distribution of NPLs	58
	4.8	Segment-wise NPLs to Loan Ratio of the Banking Sector	60
	4.9	NPLs to Loan Ratio of the Consumer Segment	60
	4.10	Business Lines, Loss Types and Suggested Exposure Indicators	66
	4.11	Distribution of Banks by Liquid to Total Assets Ratio	70
	4.12	Distribution of Banks by Advances to Deposit Ratio	70
	4.13	Profitability of the Banking Sector	72
	4.14	Distribution of Banks by ROA	72
	4.15	Benefit of FSV Availed in Provisioning	73
	4.16	Sources of Change in Interest Income on Customers' Loans and Interest Expense on Deposits	74
	4.17	Category-wise Position of Banks' Equity	75
	4.18	Shocks to Risk Factors and Impact on CAR based on Data for End December CY09	78
	4.19	Key Financial Indicators	82
5		ormance Review of Non-Bank Financial Institutions	85
	5.1	Assets of NBFIs	85
	5.2	Number of NBFIs	86
	5.3	Licenses held by NBFIs in FY10	86

## **List of Tables**

	5.4	Mergers and Acquisitions from FY03 to FY10	88
	5.5	Key Performance Indicators of NBFIs	89
	5.6	Key Performance Indicators of Operative Investment Finance Companies	90
	5.7	Equity of Leasing Companies	91
	5.8	Performance Indicators of Existing Leasing Companies	92
	5.9	Financial Position of Existing venture Capital Companies	93
	5.10	Concentration in Modaraba Sector	93
	5.11	Key Performance Indicators of Existing Modarabas	94
	5.12	Aggregate Performance Indicators of HBFCL and AHFL	96
	5.13	Financial Position of DFIs	97
	5.14	Asset Composition of DFIs	97
	5.15	Investments Portfolio of DFIs	97
	5.16	Funding Composition of DFIs	98
	5.17	Key Performance Indicators of DFIs	98
	5.18	Structure of Mutual Funds	99
6	Perfo	ormance and Stability of the Insurance Sector	101
	6.1	Risk Transfer among Banks, Insurance Companies and Capital Markets	101
	6.2	Real Premiums Growth in Year 2009	101
	6.3	Asset Structure of the Insurance Industry	103
	6.4	Overview of Life Insurance Sector	105
	6.5	Financial Soundness Indicators of Life Insurance Sector	108
	6.6	Overview of Takaful Insurance	109
	6.7	Overview of Non Life Insurance Sector	109
	6.8	Concentration in Non Life Business	111
	6.9	Overview of NICL	111
	6.10	Financial Soundness Indicators for Non Life Insurance Sector	112
	6.11	Reinsurance Business in Pakistan	113
7	Stabi	lity Assessment of Financial Markets	117
	7.1	Government Borrowing and NDA Growth	118
	7.2	Inter-bank Market Liquidity Conditions	119
	7.3	SBP Standing Facility (Reverse Repo)	122
	7.4	Open Market Operations	123
	7.5	Volatility in Market Interest Rates	124
	7.6	T-bill Auction Summary	125
	7.7	PIBs Auction Summary	128
	7.8	Auction Profile of GoP Ijara Sukuk	129
	7.9	Secondary Market Trading	129
	7.10	Reserve Adequacy Ratios	135
	7.11	Overview of Capital Market	140
	7.12	Country-wise performance of MSCI Emerging Markets Asia\Far East	140
	7.13	MSCI Index Performance in other Regions\Countries	141
	7.14	Performance of MSCI Frontier Markets	141
	7.15	New Listing At Karachi Stock Exchange during FY10	144
	7.16	Sources of Corporate Financing	145

## **List of Tables**

8	Payr	147	
	8.1	Trends in Real Time On-line Banking	150
	8.2	Trends in ATM Transactions	151
	8.3	Trends in POS Transactions	152
	8.4	Composition of Settlement in PRISM	157

1	Role o	of Government in Facilitating Development of the Bond Market	1		
	1.1	Government Securities Volume (Secondary Market)	7		
2		rnment Borrowing from the Banking System: Implications for Monetary and cial Stability	10		
	2.1	Fiscal Balance as a Percentage of GDP	10		
	2.2	Interest Payments	14		
	2.3	Sources of Domestic Financing	16		
	2.4	Government Budgetary Borrowings from the Central Bank (Flows)	17		
	2.5	Real GDP and CPI Growth	19		
	2.6	Budget Deficit and Inflation	19		
	2.7	Budgetary Borrowing from SBP/M2	19		
	2.8	Growth in M2 and CPI	20		
	2.9	Government Budgetary Borrowings from the Commercial Banks (Flows)	21		
	2.10	Net Accepted in T-Bill Auctions	22		
	2.11	Spread Between Treasury Bill and Lending Rate	22		
	2.12	Credit for Commodity Operation	23		
	2.13	Bank Financing for Commodity Operations (Cum. Flows)	23		
	2.14	Rate on Commodity Finance and T-bill Cut-off Yield	23		
	2.15	Credit to Public Sector Enterprises	24		
	2.16	Banks' Investment in Other Approved Securities	24		
	2.17	Private Sector Credit and Growth	28		
	2.18	Private Sector, Public Sector Borrowing as a proportion of Deposits	28		
	2.19	Growth in Private Sector Credit and Interest Rates	28		
3	Role of Government in Promoting Savings: Central Directorate of National Savings				
	3.1	Real Rates on NSS and WA Banks Rate	39		
	3.2	Composition of Government Domestic Debt	41		
	3.3	NSS as Percent of Budget Deficit	41		
	3.4	Trends in Domestic Debt Servicing	41		
	3.5	Trends in Net Flows NSS vs Bank Deposits	43		
	3.6	Substitution b/w Fixed Deposits & NSS: Net Flows	44		
	3.7	Trends in NSS rate, Net & Gross Flows	44		
	3.8	Interest Trends: NSS vs. Bank Deposits	44		
4	Stability of the Banking System				
	4.1	Bank Assets	52		
	4.2	Asset Composition of the Banking System	52		
	4.3	Decade-wise Scatter of Bank Concentration	52		
	4.4	Trends in Currency to Deposits Ratio & MM	53		
	4.5	Advances, NPLs, GDP Growth	55		
	4.6	Trends in Key Interest Rates	56		
	4.7	Annual Change in NPLs of the Banking Sector	58		
	4.8	Category-wise breakup of NPLs	58		
	4.9	Provisions & Bad debts Written off Directly	59		
	4.10	Provisions Against NPLs	59		
	4.11	Trends in Net NPLs	59		

4.12	Short Term Interest Rate Volatility	61
4.13	Secondary Market Yields	62
4.14	PKRV	62
4.15	Yield Spreads from 6-M T-bills	63
4.16	Classification of Fixed Income Securities	63
4.17	GAP (RSA-RSL) to Asset Ratio	63
4.18	Ex. Rate and Swap Points Implied Rate	64
4.19	Resident FE-25 Deposits & FE-25 Loans	64
4.20	NOP of the Banks	65
4.21	Volatility in KSE-100 Index	65
4.22	Investment in Shares	66
4.23	Composition of Risk Weighted Assets in CY09	67
4.24	Surplus Liquidity of Banking Sector	68
4.25	Trends in O/N rates and Liquidity Premium	68
4.26	Trends in Currency to Deposit Ratio	69
4.27	Components of Liquid Assets as Share of Total Assets	70
4.28	Advances (Net of EFS) to Deposit Ratio (ADR)	70
4.29	Maturity Gap (Assets-Liabilities)	71
4.30	Share of Fixed Deposits in Total Deposits	71
4.31	Banks with Above Average ROA	73
4.32	Sources of Gross Income	73
4.33	NIM and Average Spread	74
4.34	Trends in Banking Capital	75
4.35	CAR & RWA	76
4.36	CAR of banks and Market Shares	76
4.37	Asset Share of banks with CAR Above 10%	77
4.38	Net NPLs to Capital Ratio	77
4.39	Distribution of Net NPLs to Capital Ratio	77
Perfo	rmance Review of Non-Bank Financial Institutions	85
5.1	Funding Structure of NBFCs-FY09	87
5.2	Growth Trend in Non Bank Finance Sector	87
5.3	Assets and Equity IFCs	89
5.4	Structure of Equity	90
5.5	•	90
5.6		91
5.7		91
	~	91
	•	92
	•	94
	Outstanding Mortgage Loans	94
		95
		95
		95
5.15	Asset Concentration of DFIs	97
	4.14 4.15 4.16 4.17 4.18 4.19 4.20 4.21 4.22 4.23 4.24 4.25 4.26 4.27 4.28 4.29 4.30 4.31 4.32 4.33 4.34 4.35 4.36 4.37 4.38 4.39  Perfo 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10 5.11 5.12 5.13 5.14	4.13 Secondary Market Yields 4.14 PKRV 4.15 Yield Spreads from 6-M T-bills 4.16 Classification of Fixed Income Securities 4.17 GAP (RSA-RSL) to Asset Ratio 4.18 Ex. Rate and Swap Points Implied Rate 4.19 Resident FE-25 Deposits & FE-25 Loans 4.20 NOP of the Banks 4.21 Volatility in KSE-100 Index 4.22 Investment in Shares 4.23 Composition of Risk Weighted Assets in CY09 4.24 Surplus Liquidity of Banking Sector 4.25 Trends in O/N rates and Liquidity Premium 4.26 Trends in Currency to Deposit Ratio 4.27 Components of Liquid Assets as Share of Total Assets 4.28 Advances (Net of EFS) to Deposit Ratio (ADR) 4.29 Maturity Gap (Assets-Liabilities) 4.30 Share of Fixed Deposits in Total Deposits 4.31 Banks with Above Average ROA 4.32 Sources of Gross Income 4.33 NIM and Average Spread 4.34 Trends in Banking Capital 4.35 CAR & RWA 4.36 CAR of banks and Market Shares 4.37 Asset Share of banks with CAR Above 10% 4.38 Net NPLs to Capital Ratio 4.39 Distribution of Net NPLs to Capital Ratio  Performance Review of Non-Bank Financial Institutions 5.1 Funding Structure of IFCs 5.4 Structure of Equity 5.5 Liability Structure of IFCs 5.6 Asset Allocation of Liabilities 5.8 Concentration of Assets in Leasing Sector 5.9 Profitability Indicators of Modaraba Sector 5.10 Ovstanding Mortage Loans 5.11 Outstanding Mortage Loans 5.12 Share in Gross Disbursements 5.13 Share in Loans Disbursed 5.14 Assets of HFCs

6	Perfo	rmance and Stability of the Insurance Sector	101
	6.1	GDP and Premiums of Insurance Sector	102
	6.2	Share in Life Insurance Assets	107
	6.3	Capital Structure of Life Insurance	107
	6.4	Investment portfolio of Life Insurance	107
	6.5	Gross Premium and Claims	108
	6.6	Equity Structure of Non Life Insurance Companies	110
	6.7	Composition of Net Premiums	110
	6.8	Claim Ratio	110
	6.9	Major Sources of Profit	111
	6.10	Reinsurance Retention and Claim Ratio	113
7	Stabil	ity Assessment of Financial Markets	117
	7.1	Factors Driving Market Liquidity	117
	7.2	Demand Pressures and SBP's Monetary Policy	118
	7.3	Liquidity Position of Banks	121
	7.4	Government Recourse to the Banking System (Stock Position)	121
	7.5	Budgetary Borrowings from SBP	121
	7.6	Movement in Overnight Repo Rate and Average Outstanding Net OMO Injections	122
	7.7	Movement in Market Interest Rates	123
	7.8	Spread between 6 month KIBOR and 6 month Repo	124
	7.9	T-bill Auction (Net of maturities)	126
	7.10	Quarterly Trend of T-bill Auctions of FY10	126
	7.11	Distribution of Tenor-Wise Offers in T-bill Auctions	126
	7.12	T-bill Cut Offs	127
	7.13	NCB Participation in MTBs	127
	7.14	Outstanding T-bills Stock	127
	7.15	PIB Average Issue Size	128
	7.16	Ownership Pattern of PIBs	129
	7.17	Spread Overnight Call and Repo	130
	7.18	Slope of Yield Curve (10 year minus 6 month PKRV)	130
	7.19	Yield Curves (PKRV)	130
	7.20	Yield Curves (PKRV)	131
	7.21	Foreign Exchange Market Volume	132
	7.22	External Account Position	132
	7.23	Foreign Exchange Reserves Flows and Concentration of SBP Reserves in Q1 and Q4 of FY10	133
	7.24	SBP Intervention	134
	7.25	Quarterly Pattern of Scheduled Banks' Reserves FY10	134
	7.26	Causative Factors of Scheduled Banks' Reserves FY10	135
	7.27	Monthly Movement in Exchange Rate and External Account	136
	7.28	Net Open Position of All banks	136
	7.29	Interbank Rate and Kerb Premium	137
	7.30	App(+)/Dep(-) against Major Currencies	137
	7.31	Effective Exchange Rates-YoY changes	138
	7.32	Movement in Forward Swap Points	138
	7.33	Performance of KSE	139

	7.34	KSE 100 Index and Ready Volumes	139
	7.35	Special Convertible Rupee Account (SCRA) Flows	141
	7.36	Market Value of SCRA Balance	142
	7.37	Market Volatility	143
	7.38	Total Stake of Banks in Equity Market	143
	7.39	Banks Investments in Shares	143
	7.40	Investment in Equity Ratio	144
	7.41	TFC Floatation	144
8	Paym	ent and Settlement System	147
	8.1	Retail Transactions Trends	148
	8.2	Share of Electronic Transactions	149
	8.3	Share of Paper Based Transactions in Total Value of Non-Cash Transactions	149
	8.4	Average Size of Transaction	149
	8.5	Composition of Paper Based Transactions	149
	8.6	Quarterly Trends in Electronic Transactions	150
	8.7	Components of Electronic Transactions by Volume	150
	8.8a	PRISM Activities	156
	8.8b	Average Daily Transactions in PRISM	156
	8.9	Monthly ILF Utilization	161
	8.10	Bank Liquidity and ILF Utilization	161

### **List of Boxes**

1	Role	of Government in Facilitating Development of the Bond Market	1
	1.1	Development of the Bond Market in Singapore - Role of the Government	2
2		ernment Borrowing from the Banking System: Implications for Monetary and ncial Stability	10
	2.1	Treasury Single Account	15
	2.2	Impact of Different Methods of Financing Deficits	16
	2.3	Perspectives on Budget Deficits, Monetary Growth and Inflation	18
	2.4	Banks' exposure in the Energy Sector	25
	2.5	Impact of Increase of Government Expenditure on Private Investment: Theoretical Perspectives	29
3	Role	of Government in Promoting Savings: Central Directorate of National Savings	37
	3.1	Small Savings and Bank Deposits in India	42
	3.2	Proposed Reforms to Pakistan's Debt Capital Market- With Special Reference to Structure of National Saving Schemes	45
6	Perf	ormance and Stability of the Insurance Sector	101
	6.1	Determinants of Life Insurance Consumption Across Countries	106
7	Stab	ility Assessment of Financial Markets	117
	7.1	Key Measures introduced in the Monetary Policy framework	119
	7.2	Interest Rate Corridor	120
	7.3	Electronic Bond Trading Platform	125
	7.4	Emerging Asia's Equity Markets post Global Financial Crisis	142
8	Payn	nent and Settlement System	147
	8.1	Payment System Network in Pakistan	148
	8.2	Transition to RTGS	154
	8.3	Operational Features of PRISM	155
	8.4	Types of Intra-day Credit Facilities and Case of Pakistan	159