Understanding Monetary Policy and Financial Markets

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Monetary Policy: Concepts, Framework and Experience

Monetary Policy

- A key component of economic policy
- Central banks are responsible for the formulation and implementation of MP.
- Policy actions taken by a central bank to change the monetary conditions in an economy.
- Four key characteristics
  1. Goals
  2. Intermediate target
  3. Instruments-policy options
  4. Strategy/framework

Monetary Policy Goals

- Multiple objectives
  - low inflation
  - Support economic growth
  - Equilibrium in the balance of payments, and
  - Interest and exchange rate stability
- Single objective
  - low and steady inflation
- Dual vs. hierarchical mandate
- Country Experience

Country Examples

- Federal Reserve: "The goals of monetary policy are to promote maximum employment, stable prices and moderate long-term interest rates".

- ECB: "Without prejudice to the objective of price stability", the Euro-system shall also "support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union". These include inter alia "full employment" and "balanced economic growth"

- BOE: The Bank's monetary policy objective is to deliver price stability – low inflation – and, subject to that, to support the Government's economic objectives including those for growth and employment. *Price stability is defined by the Government's inflation target of 2%.*

- **SBP:** The basic objective of monetary policy is two-fold i.e. "… to securing monetary stability and fuller utilization of the country's productive resources"

Why focus on price Stability? *To avoid costs of high inflation*

High inflation generally coincide with high degree of variability that:

- Create uncertainty: makes it difficult for the individuals and firms to efficiently plan their decisions to consume, save and invest;
- Discourages investment: firms are uncertain about future worth of their money, they become reluctant to invest—low investment impedes economic growth;
- Incentivize spending: a bid to hedge against inflation risk;
- Discourages long term contracts: resources are wasted on frequent negotiations;
- Undermines confidence in domestic currency;
- Impacts more severely fixed income and low income groups;
- Redistributes wealth from savers to borrowers (mainly business community).

Why focus on price stability?

Low and stable inflation helps in achieving other objectives

- Low and stable inflation facilitate:
  - businesses in making sound investment decisions;
  - maintaining value of domestic currency;
  - protecting savings of the nationals;
- These, in turn, promote growth and job creation in the economy.
- Consistent with the "other goals" in the long-run –trade-off between inflation and employment; and financial stability.
- Short-run trade-off -- monetary tightening might help in controlling inflation, but might cause unemployment to rise in the short-run.
- May encourage excessive risk taking (Global Financial crisis)

Monetary Policy Strategy-I

- Monetary targeting: flexible, transparent and accountable
  - Almost immediate signals help fix inflation expectations and produce less inflation
  - Require a strong and reliable relationship between the goal variable and the targeted monetary aggregate.
- Inflation targeting-advantages
  - Institutional commitment to price stability -- the primary, long-run goal of monetary policy
  - Information-inclusive approach in which many variables are used in making decisions
  - Easily understood; stresses transparency; Reduces potential of time-inconsistency trap (Cont'd)

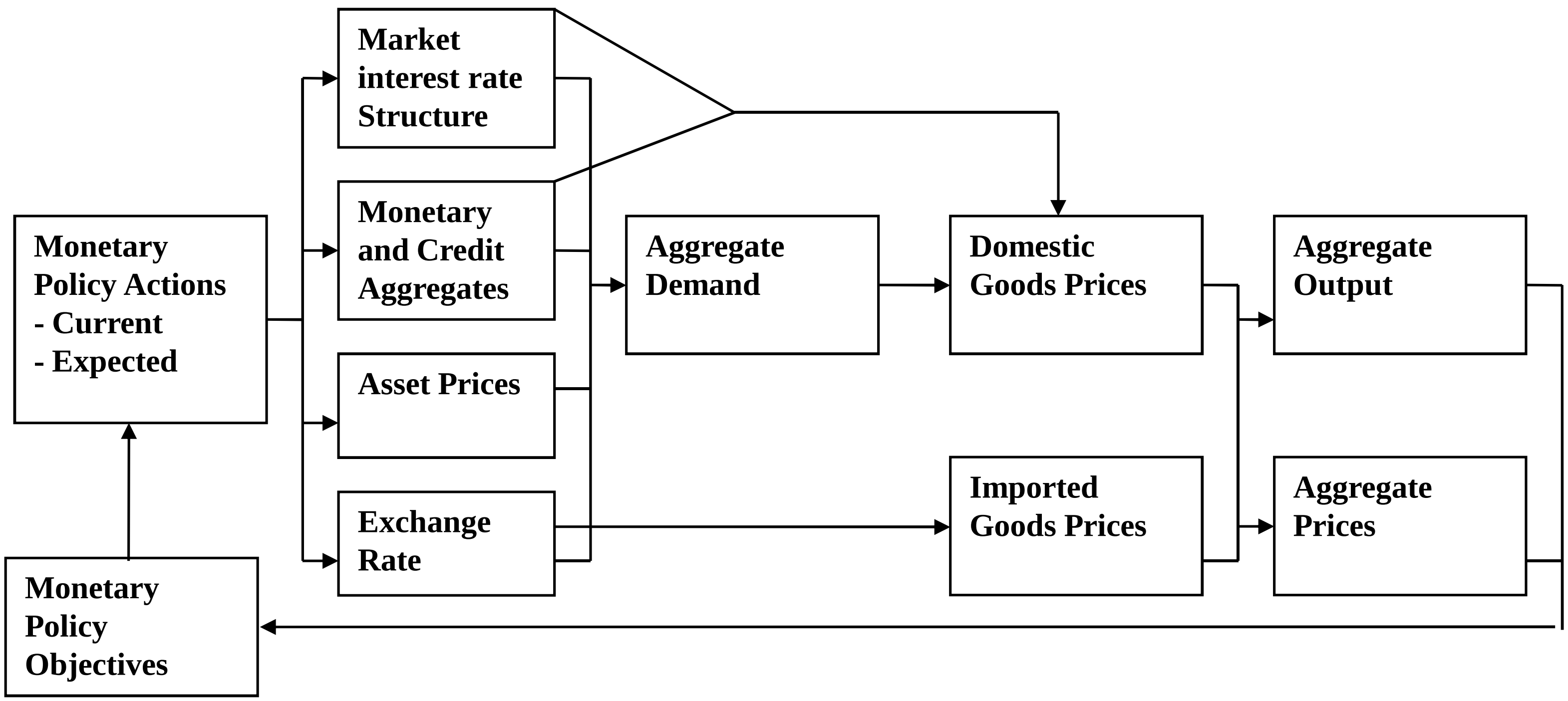
Monetary Policy Strategy-II

- Inflation targeting - disadvantages
  - Too much rigidity
  - Potential for increased output fluctuations
- Implicit nominal anchor: Forward looking and preemptive
  - Uses many sources of information
  - Avoids time-inconsistency problem
  - Demonstrated success
  - Lack of transparency and accountability
  - Strong dependence on the preferences, skills, and trustworthiness of individuals in charge

Tactics: Choosing Policy Instruments

- Tools /operating instruments
  - Open market operations
  - Reserve requirements
  - Interest rates
- Can’t have interest-rate and aggregate targets - one or the other
- Criteria for choosing policy instrument
  - Observable and Measurable
  - Controllabile
  - Predictable effect on Goals (MTM)

Monetary transmission mechanism: a simplified view



Key issue – Transmission lags and Uncertainty

- Stability of relationship; Data uncertainty; Model uncertainty; shocks; etc.
- Monetary management is both a science as well as an art, where a lot depends on judgment.

Monetary policy: experience of Pakistan

- **Ultimate objective** – Monetary stability; Soundness of the financial system; Fuller utilization of country productive resources
- **Intermediate target** – Inflation and assessment of monetary aggregates.
- **Operational target** – money market overnight repo rate
  - Indicators – yield curve/interest rate spreads, reserve money etc.
- **Instruments** – policy rate, OMOs, CRR, SLR.

Monetary policy Instruments

In May 2015, SBP announced changes in the Monetary Policy Framework by introducing the SBP Target Rate..

Rates on standing facilities

- SBP Reverse Repo Rate (6.5 %); SBP Policy Rate (Target Rate -6.0 %); and SBP repo rate (4.5%)

Open Market Operations

- conducted regularly on Fridays and on need basis on other days.

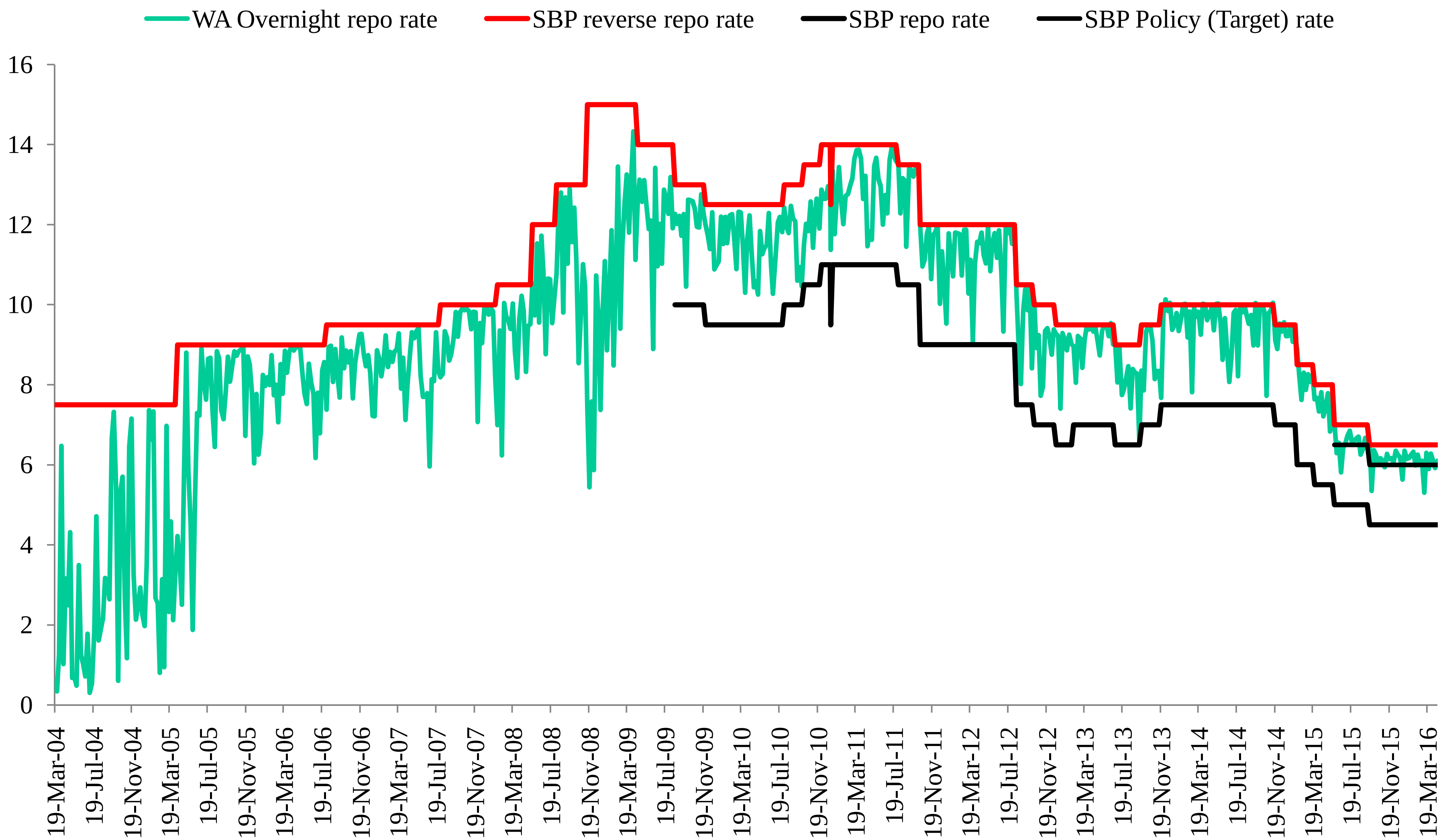
Cash Reserve Ratio (CRR)

- 5% for demand liabilities (including less than 1 year time deposits);
- 5% as CRR and 15% special CRR on foreign currency deposits.

Statutory Liquidity Ratio (SLR)

- 19% for demand liabilities (including less than 1 year time deposits)

Monetary policy strategy- Interest rate targeting



Monetary policy strategy

- Interest rate targeting: SBP adjusts the policy rate in the direction it deem necessary to control inflation close to its target;
- This has effects on other market interest rates, such as secondary market rates, KIBOR, that are used as benchmark for lending to businesses and households;
- Decision is broadly based on the assessment of near-term inflation path and inflation expectations vis-à-vis announced inflation target;
- Demand pressures in the economy: projections of key macroeconomic variables including reserve money, M2 and its major components, imports and exports, and current account balance; etc.
- Monetary Policy Committee in responsible for policy formulation

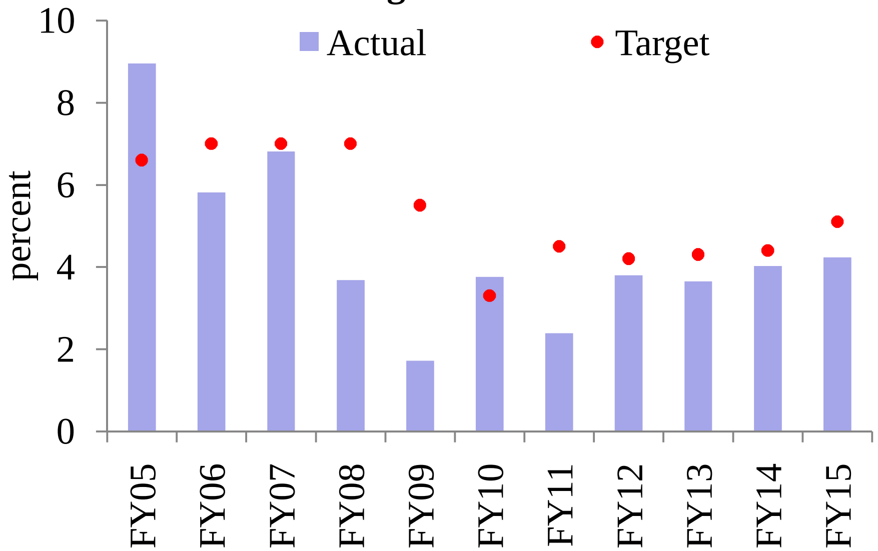
Monetary policy decision making process

- SBP’s Monetary Policy Committee responsible for the policy formulation.
- The MPC consists of Governor SBP (chairperson); three senior executives of the Bank; three members of the board; and three external members.
- At least six times a year to decide the monetary policy stance.
- Initial draft of MPS is circulated among the SBP’s senior management, to initiate debate and to get their feedback and suggestions.
- After incorporating comments, the draft MPS along with other information including Monetary Policy Information Compendium, Macroeconomic Outlook, etc. is sent to the MPC before the meeting.
- The decision is reached through consensus of the MPC.
- The decisions are announced through press conference by the Governor (in January and July) and through a press release on other four occasions.

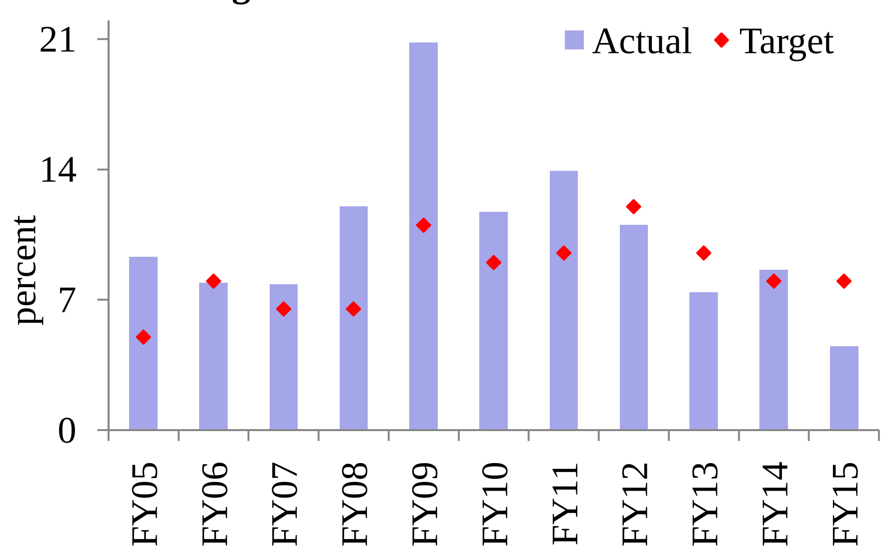
Actual Outcome depends on a combination of factors

- Transmission lags/ uncertainty
- Monetary and fiscal policies coordination
- Government financing (targets, sources, outcomes)
- Credit expansion, largely drives real economic activities
- External sector developments can become paramount in certain situations.
- Natural calamities can also play a critical role.

Real GDP Growth -Targets Vs Actual



Inflation -Targets Vs Actual



Financial Markets: Fundamentals, and Experience

Monetary policy and Financial Markets

- Financial markets are central to monetary policy operations
- Monetary transmission depends on efficiency and structure of financial markets
- Interest rate deregulation-help in developing money markets and transmission thereof
- Financial liberalization- can alter transmission

Financial Instruments

Financial instruments are *contracts* that govern the transfer, use and repayment of funds

Two main classes of instruments:

- Money Market Instruments
- Capital Market Instruments

Money Market Instruments-I

- Money Market instruments characterized by maturities of less than 1 year
- Reissued frequently, tradable (liquid)
- Sound issuers (low credit risk)
- Used by many participants for:
  - Financing operations (working capital)
  - Cash and liquidity management
  - Monetary policy and interest rate setting

Money Market Instruments-I

- Main instruments are issued by:
  - Banks (CDs, CPs)
  - Govt. (Treasury bills, repos)
  - Corporate (Commercial Paper)
- Repurchase agreements (“repos”), a collateralized loan:
  - Mostly done with govt securities
  - Overnight, as well as open- and term-repos
- Key advantage: Lender obtains full ownership of security

Capital Market Instruments-I

- Longer term, more than 1 year maturity
- Three broad categories:
  - Bonds
  - Equities
  - Derivatives

Capital Market Instruments-Bonds

- Sometimes called fixed-income securities
- Promise a fixed stream of income, or a stream determined by formula (e.g. variable rate or indexed bonds)
- Coupons are generally semiannual and yield-to-maturity (YTM) is a good measure of return
- Government bonds usually provide a benchmark yield curve
- Corporate bonds are similar in structure, generally higher default risk (summarized by ratings):
    - Secured bonds (specific collateral)
    - Unsecured bonds (debentures)
    - Subordinated bonds (lower-seniority)

Capital Market Instruments- Equities

- Equities or common stocks, provide ownership in a company (with limited liability), including
  - Residual claim on profits (dividends); no maturity
  - Voting power (except for preferred shares)
  - Mostly held for capital appreciation, and corporate control
- Preferred stock has features of equities and bonds
  - Promises fixed dividend
  - But with discretion to postpone;
  - Senior to common shares, but no vote/control
  - Could be callable or convertible to common shares

Capital Market Instruments- Derivatives

- Derivatives are instruments whose value depends on that of an underlying security
- Forwards: agreement to exchange an asset at future time and given price
  - Tailored according to requirement of customer
  - Traded OTC & Generally held to expiration
- Futures: same as forwards, except for:
  - Standardized & traded in market(margins)
  - Generally traded before expiration
- Swaps: agreement to exchange a series of cash flows or currency
- Options: right to buy or sell an asset at specified delivery ("strike") price.

Financial Markets: a direct route

- Financial markets provide the direct finance route via issuance of financial instruments.
- Firms raise funds by issuing bonds or equities in the primary market
  - Equity: IPO
  - Bonds: public offering/private placement
- Trading of already-issued securities occurs in the secondary market
  - No new funds raised
  - Just a transfer of ownership/exposures (but quite relevant; liquidity)

Financial Markets by types

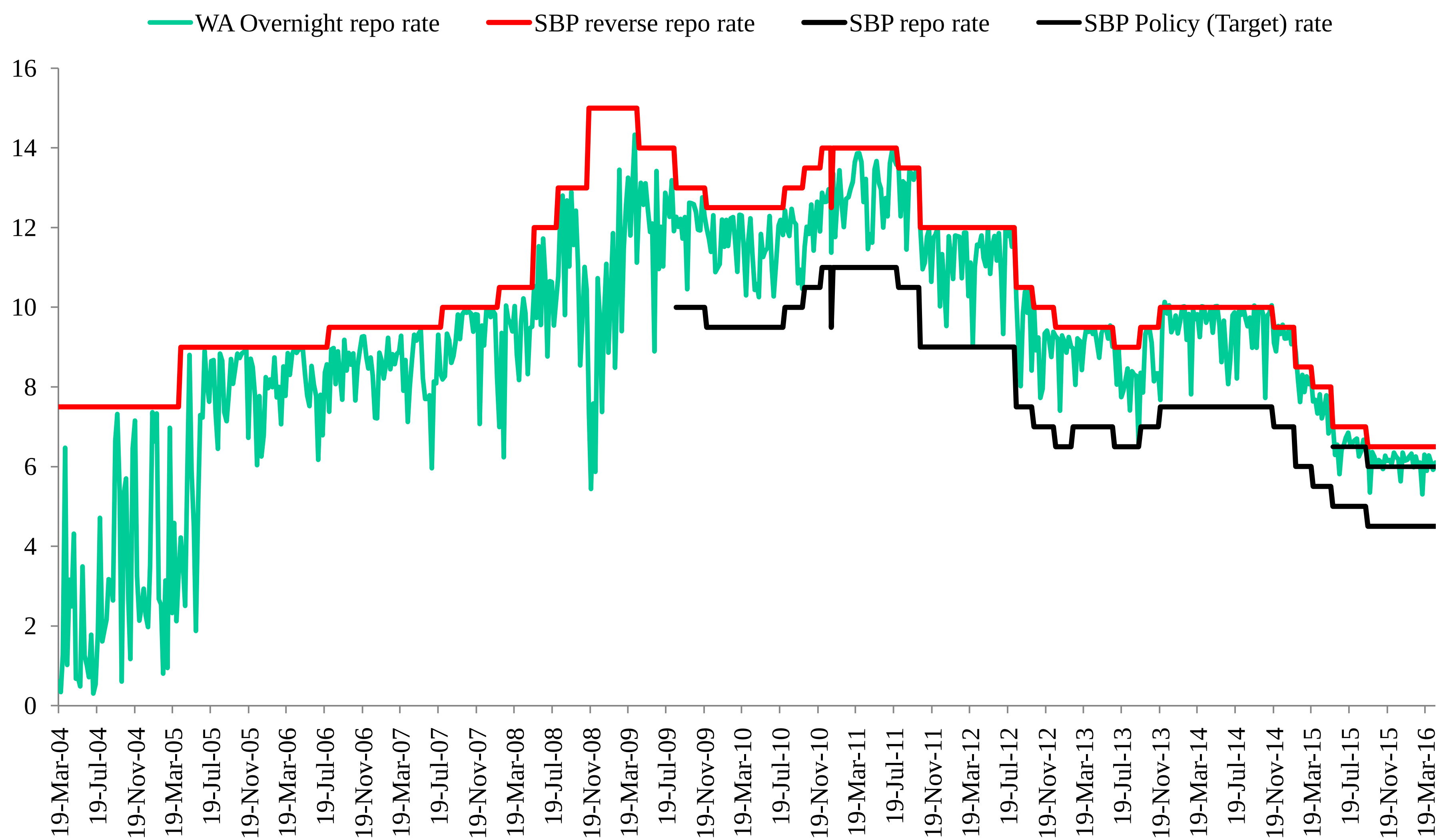
- Primary markets deal with all the standard problems of lending; *underwriting* done by investment bank
- Secondary Markets allow agents to "undo" a loan, sell asset to someone else
- Money Market
- Capital Markets
  - Debt and Equity Markets
- Foreign Exchange Markets

Financial market instruments

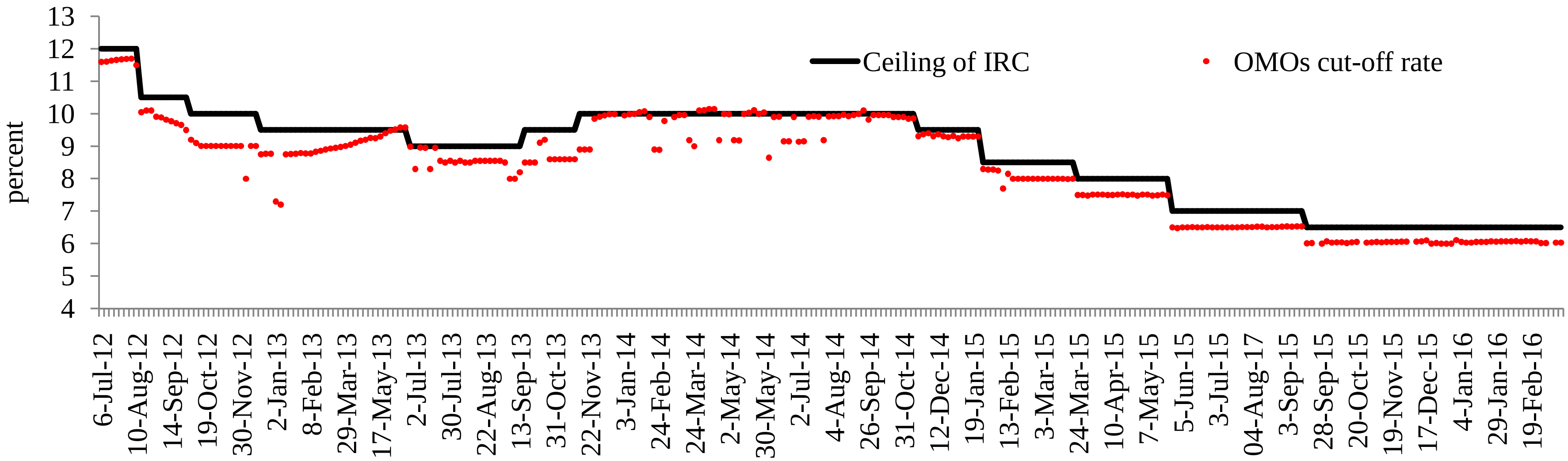
Financial market instruments

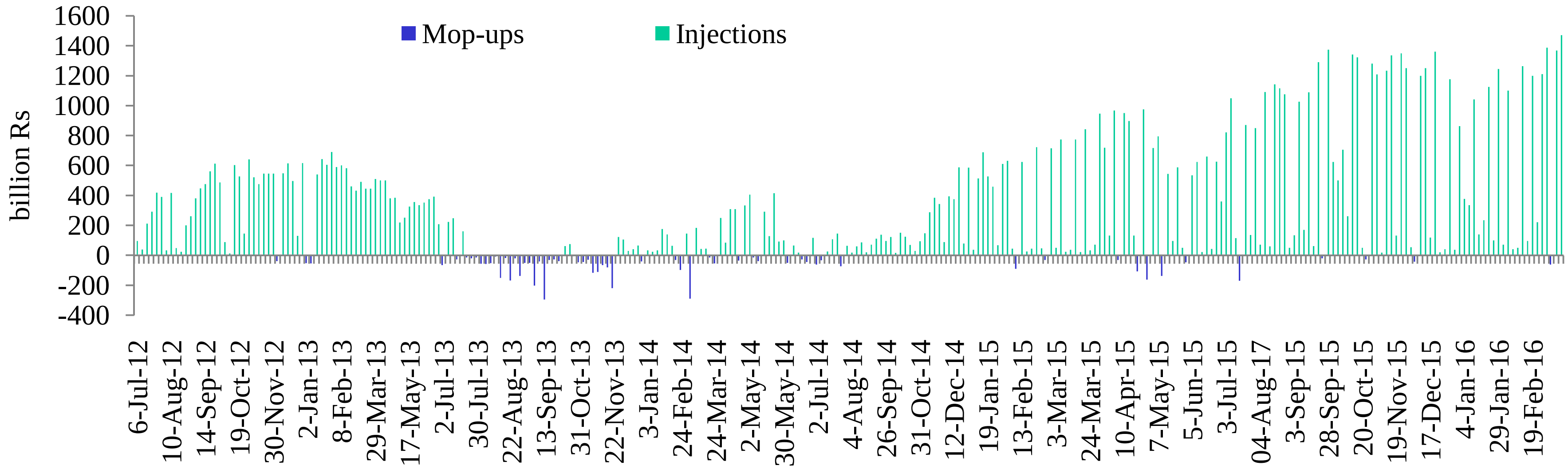
- **Money Market**
  - MTBs
  - Repo/Reverse Repo
  - Call Borrowing/Lending
- **Capital Market**
  - Shares
  - Term Finance Certificates
  - Muscharaka Certificates
  - Modaraba Certificates
  - FIBs/PIBs
  - Fed. & Prov. Market Loans
- **Foreign Exchange Market**

Money Market – Liquidity management



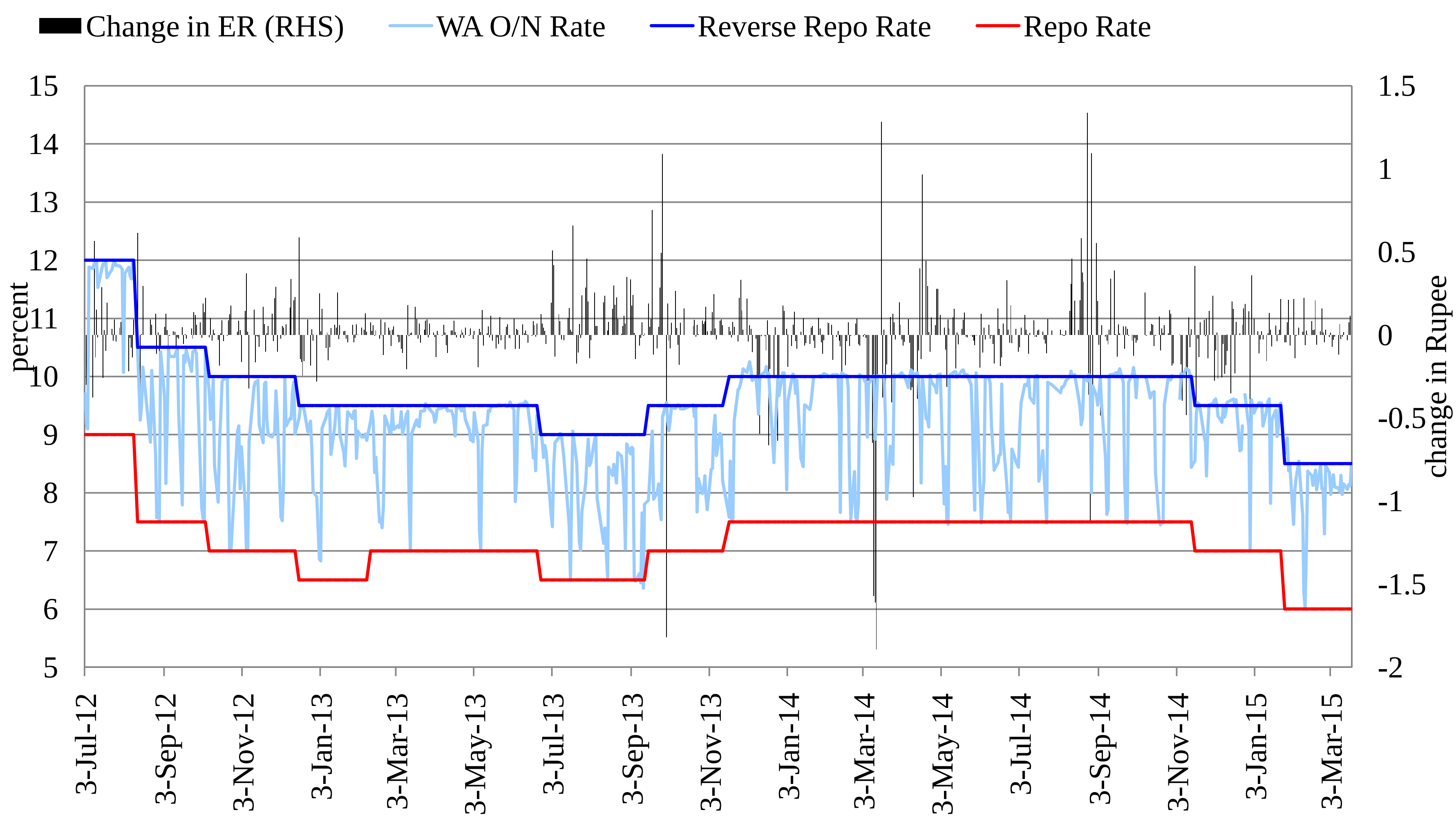
SBP Open Market Operations-Liquidity management





Money Market – Interaction with FX market

Changes in exchange rate and money market rates



Foreign Exchange Market

- Foreign Exchange supply
  - None debt creating inflow: Export earring; Remittances; FDI and grants
  - Debt inflows: bilateral or multilateral loans
- Foreign exchange demand
  - Import payments; repatriations of profits; services
  - Repayment of loans
- Key players: SBP, Banks, Exporters/Importers and Govt.
- FX liquidity management
  - FX swaps

Bonds Markets in Pakistan-I

- Bond market in Pakistan is fairly small
- Household investors: primarily invest in NSS
- Institutional investors: government and private bonds
- Prior to financial sector reforms of 1990s.
    - No corporate bond market: not a single bond was issued by private sector;
    - Not many companies were left after nationalization
- Private limited companies avoid any public disclosure
- Only Government bond market
- Privatization paved the way for private sector
- Prize Bonds-the most famous bond in the public
    - Zero coupon, risk free instrument with lottery based returns

Bonds Markets in Pakistan-II

- Bond financing, not a preferred mode of long term financing;
- Public sector, not used bond financing to invest in new infrastructure, energy or transport sector etc.
- But, bond financing for budgetary operations

Outstanding amount (Rs Bln)

	FY90	FY95	FY00	FY05	FY10	FY11	FY12	FY13	FY14	FY15	Jan-FY16
Federal Govt Bonds (O/w)	45	208	163	335	555	841	1,358	1,782	3550	4483	4733
PIBs	-	-	-	308	505	616	975	1322	3222	4155	4521
Ijara Sukuk	-	-	-	-	42	225	384	459	326	326	210
Private Bonds-TFCs	-	-	5	38	70	72	77	63	51	70	68
TFC-Number of Issues in a year	-	-	3	12	2	2	1	7	5	4	0
Others	157	488	1,362	1,717	3,985	5,054	6,153	7,591	7,202	7,549	8,228
Prize Bonds	25	45	81	163	236	277	333	390	447	523	593
T-bills (MRTBs)	-	233	647	778	2,399	3,233	4,143	5195	4599	4609	5130
NSS	132	211	634	776	1,350	1,544	1,676	2006	2156	2417	2505
Overall	201	696	1,531	2,090	4,610	5,967	7,577	9,440	10,819	12,099	13,028

Stock Market in Pakistan

- Small number of listed companies (Rs 1.3 trillion)
- New listing, extremely low
- Recent developments: improve liquidity, minimize distortions.

	CY12	CY13	CY14	CY15	April 2016
Total No. of Listed Companies	651	560	557	554	561
Total Listed Capital - Bln Rs	814.5	1,129.8	1,168.5	1,269.7	1,289.5
Total Market Capitalisation - Rs Bln	2,705.9	6,056.5	7,380.5	6,928.5	6,992.9
KSE-100™ Index	9,386.9	25,261.1	32,131.3	32,811.9	33616.9
New Companies Listed during the year	1	3	6	8	2
Listed Capital of New Companies - Bln Rs	3.0	4.5	27.0	29.9	2.2
New Debt Instruments Listed during the year		6	6	2	
Listed Capital of New Debt Instruments - Bln Rs.		9.8	15.0	25.0	
Average Daily Turnover - Shares in million	1.0	238.6	218.7	258.8	162.8

THANKS

Monetary and Fiscal Policy Coordination Board

Monetary and Fiscal Policies Co-ordination Board.

- Federal Minister for Finance - Chairman
- Federal Minister for Commerce, Ministry of Commerce - Member
- Deputy Chairman, Planning Commission - Member
- The Governor SBP - Member
- Secretary, Finance Division - Member
- Two eminent macro or monetary economists.

Responsible for:

- Coordinating fiscal, monetary and exchange-rate policies
- Ensure consistency among macro-economic targets of growth, inflation and fiscal, monetary and external accounts.

Limitation on Federal Government borrowing

- Barring the ways and means limits, Federal Government borrowing from the Bank at the end of each quarter they shall be brought to zero.

- The debt of the Federal Government owed to the Bank as on the 30th April, 2011, shall be retired not later than twelve years from that date.

- If case of breaching the limit, the Finance Minister shall place before the Parliament a statement giving detailed justification for the failure.