How to absorb excess liquidity in the banking sector?

- Summary of results -

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Structure

1. Excess liquidity in the market: Quantification
2. Reasons and implications of excess liquidity
3. Current absorption policy: Reserve requirements and certificates
4. Impact of current absorption policy on NBM financial results
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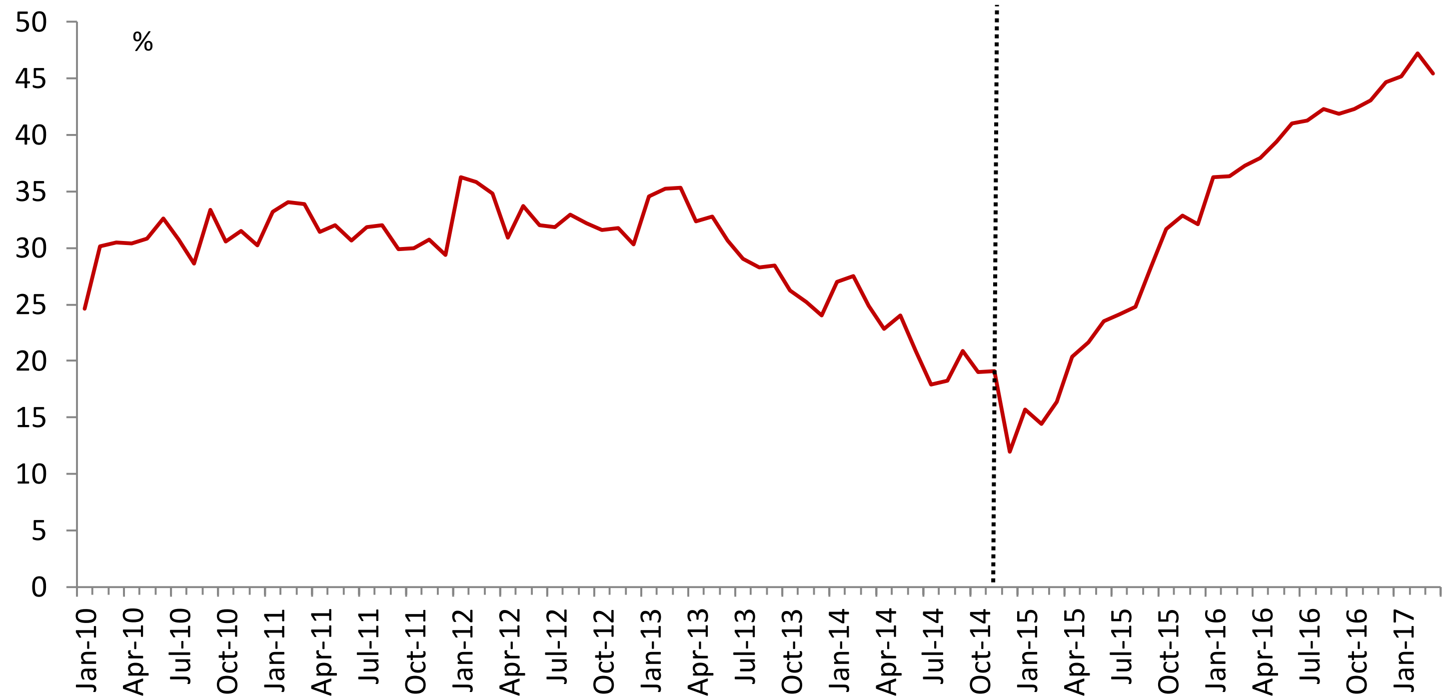
8. Recommendations
    - Involving the NBM only
    - Involving the NBM and the government

1. Excess liquidity in the market: Quantification

MDL base money absorbed in percent of MDL base money incl. certificates



Source: National Bank of Moldova

Historically: NBM absorbed ca. 30% of base money incl. certificates

Currently: NBM absorbs MDL 16.3 bn or ca. 45% of base money incl. certificates

→ Excess liquidity estimated at MDL 6 bn or 15% of base money incl. certificates

2. Reasons and implications of excess liquidity

Main reason for excess liquidity

- NBM: Provision of emergency loans to three bankrupt banks since Nov 2014
- Goal: To calm/pay out depositors and avoid a bank run

→ Stabilisation of banking sector, but problems for monetary policy

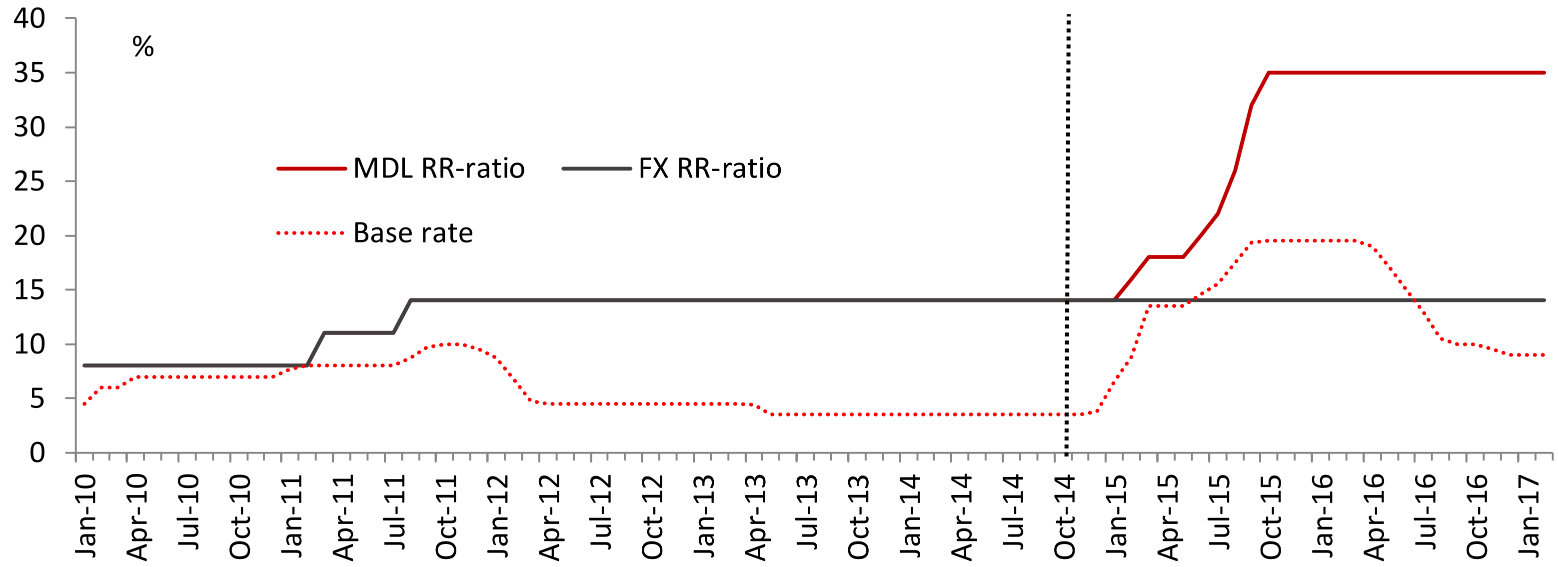
Implications of excess liquidity

- If excess liquidity is not absorbed
  - NBM cannot effectively target inflation
  - Risk for higher inflation or excessive exchange rate fluctuations
  - Thus: Not feasible
- If excess liquidity is absorbed
  - Considerable cost of absorption, thus creating financial problems for NBM

→ Excess liquidity poses significant problems for conducting monetary policy

3. Current absorption policy: Reserve requirements

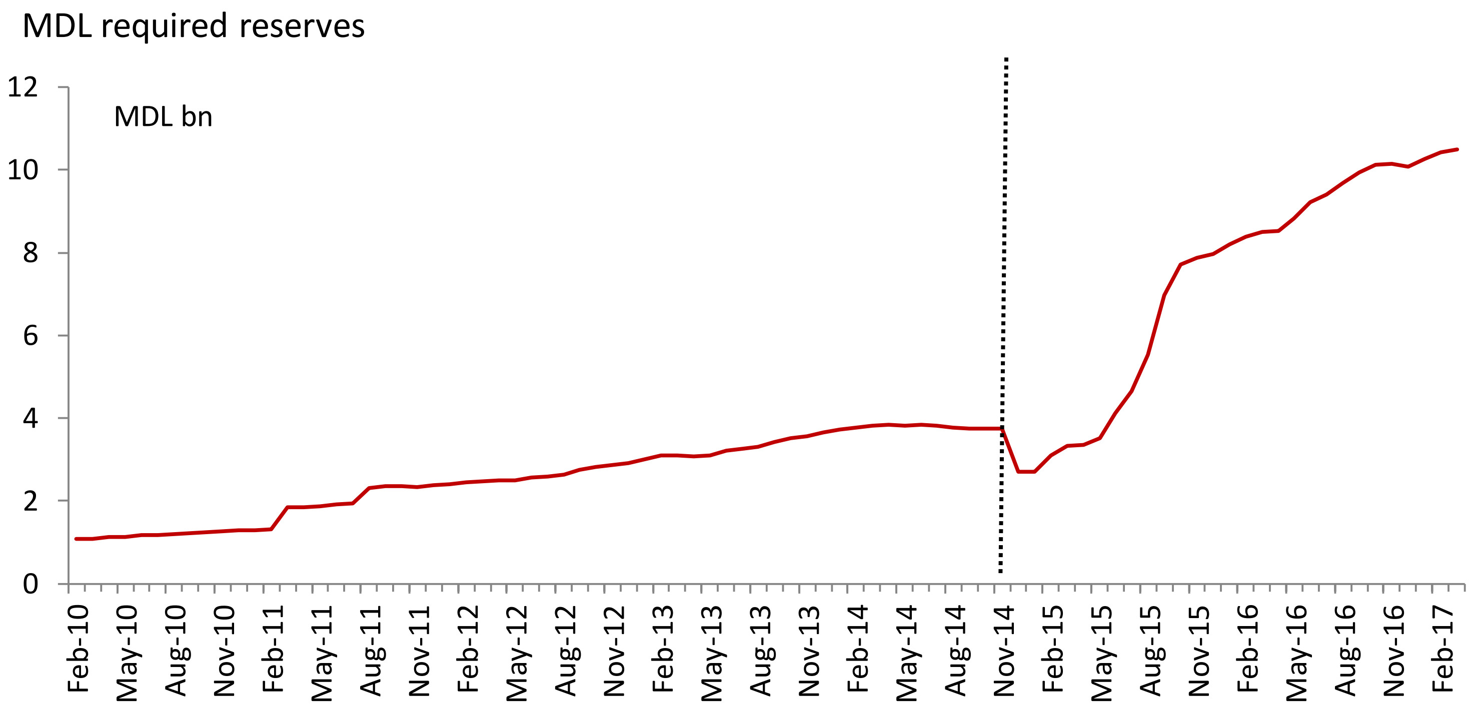
Reserve requirement ratio for MDL deposits and FX deposits, base rate



Source: National Bank of Moldova

- Since Jan 2015: Strong increase of ratio for MDL reserve requirements
- Dec 2014: 14%, currently: 37%
- Remuneration: From the 37% required, 32% are remunerated at a rate of 6%
- Effective interest rate: (32/37)*6% = 5.2%

Absorption through reserve requirements



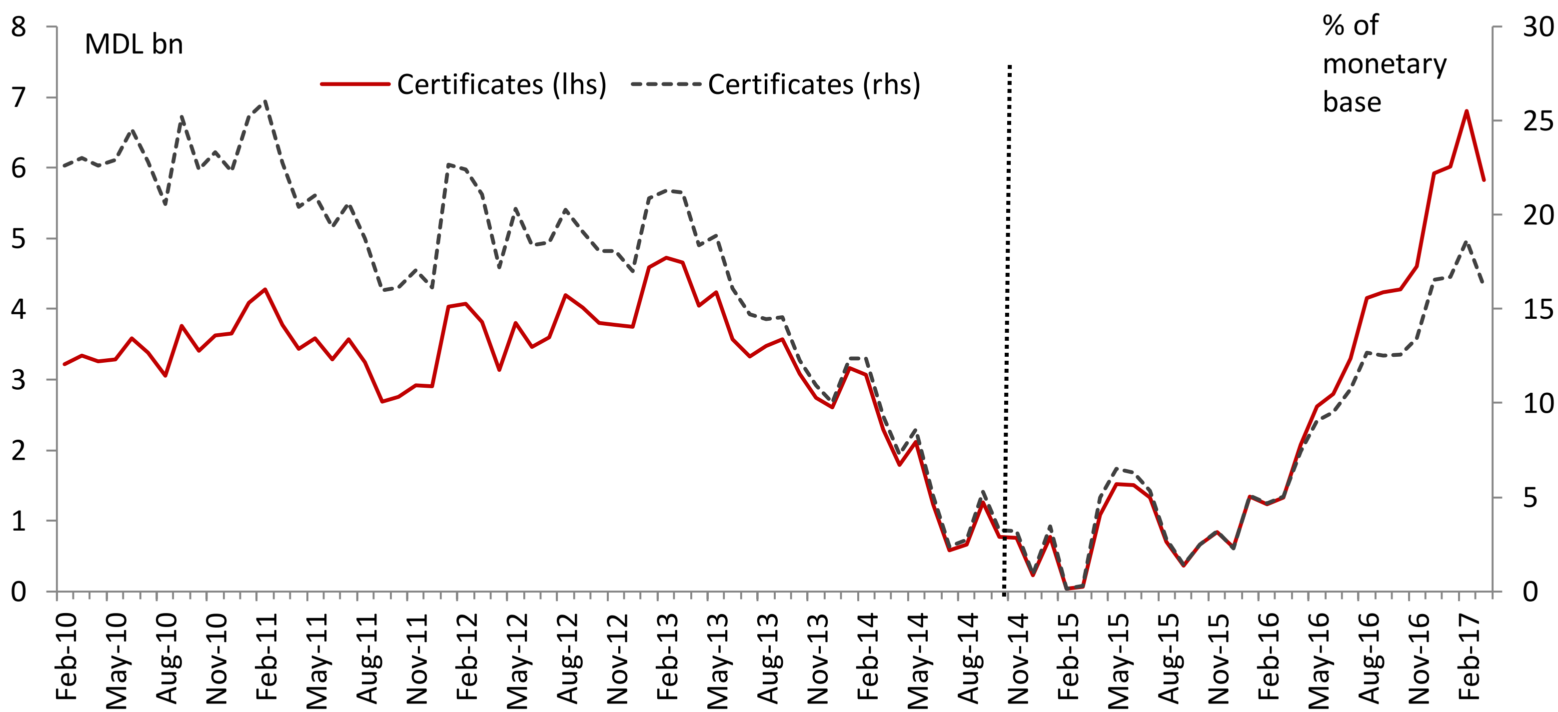
Source: National Bank of Moldova

- Strong use of reserve requirements as an absorption instrument
- Currently (March 2017): Absorption of MDL 10.5 bn
- Yearly cost of absorption (estimation): MDL 10.5 bn*5.2% = MDL 545 m

→ **Reserve requirement is the main absorption instrument of the NBM**

NBM certificates

MDL required reserves



Source: National Bank of Moldova

- NBM is also using actively certificates as an absorption instrument
- Currently (March 2017): Absorption of MDL 5.8 bn
- Interest rate = 9%; yearly cost of absorption (estimation) = MDL 522 m

→ Certificates also play a major role for absorption of liquidity

4. Impact of current absorption policy on NBM financial results

Estimation of financial results of NBM

Assets	Amount, MDL m	Interest payments, MDL m/year
Government bonds issued under the Law 235 of 3.10.2016	13,340	618
Government bonds (historical stock)	2,300	184*
Net FX reserves	38,543 (or USD 1,960 m)	377*
Sum		**1,179***
Liabilities		
MDL required reserves	10,500	545
Certificates	5,800	522
Sum		**1,067**
Net interest income		112
Operational expenses		270**
Profit/loss		**-158***

Source: Own calculation based on National Bank of Moldova data
** estimate; ** estimated on the basis of 2015 figures*

- Significant yearly cost of absorption: MDL 545 m + MDL 522 m = MDL 1,067 m
- Thus: Important reason for estimated losses at NBM
- **Assessment:** Absorption policy is necessary, but NBM financial losses imply major problems (credibility, risk on independency)

→ **Need to find a sustainable absorption policy**

5. Three criteria for a sustainable absorption policy

i. Absorption of sufficient liquidity

ii. Reasonable cost for the NBM, in order to avoid a negative financial result and/or own capital becoming negative

iii. No competition between the NBM and the Ministry of Finance on the money market, i.e. the debt market with short maturities

Ideally: NBM would find a long-term solution on its own

But: If this is possible, solution to be found with government

Thus: Two scenarios

- Solution involving only NBM
- Solution involving NBM and government

6. Potential instruments for absorbing excess liquidity

Solution involving the NBM only

1. Selling the historical stock of bonds

2. Adjusting the reserve requirement

3. Offering certificates

Solution involving the NBM and government (additional instruments)

4. Issuance of government bills and/or bonds

5. Selling Law 235 bonds

7. Comparison of the costs of different absorption instruments

Instrument	Potential absorption, MDL m	NBM costs for absorbing MDL 1 bn, MDL m	Total costs per year, MDL m	Temporary vs. permanent absorption
Selling gov bonds (historical stock)	Up to 2,300	Not clear	Not clear	permanent
Reserve requirement, effective interest rate at 5,2%	10,500 (currently)	52	545	As long as the reserve requirement is not relaxed
Reserve requirement, effective interest rate at 4,2%	10,500 (currently)	42	441	As long as the reserve requirement is not relaxed
NBM certificates	5,800 (currently)	90	522	2 weeks
Issuance of government bills/bonds, MinFin bears 50% of interest cost	≤ 2,000/year	50% of 67.6 (bills) = 33.8 50% of 78.4 (bonds) = 39.2	67.6 78.4	91 to 364 days 2 years
Selling Law 235 bonds	≤ 1,000 (if maturities up to 2021 are considered)	176	176	permanent

Source: Own calculation based on National Bank of Moldova data

8. Recommendations: Solution involving the NBM only

i. Reduction of effective remuneration rate of reserve requirements

- E.g.: Reduction from 5.2% to 4.2%
- Yearly savings of MDL 104 m, positive impact on financial results
- How? Gradually, to avoid strong reactions for banks and/or depositors

ii. Selling of government bonds from historical stock

- Advantage: Permanent effect
- However: Are bonds marketable?

iii. Certificates

- To be only used as an instrument of fine tuning
- Reason: Most expensive instrument (MDL 90 m for absorbing MDL 1 bn)
- Besides: Increase of maturity to 30 days and limited allotment
- Why limited allotment? Could lead to lower interest rates and costs for NBM

Solution involving the NBM <u>and</u> government

<u>Additional</u> instrument

iv. Issuing of government bonds by MinFin of up to MDL 2 bn

- Receipts to be frozen at a NBM account
- Cost (interest payments) to be shared by NBM and MinFin
- E.g.: 50% each
- **Thus**: Contribution to absorption at relatively low cost for NBM

Discussion: Why possible participation of MinFin?

- NBM must be able to target inflation (and avoid large exchange rate fluctuations) without making losses and thus put its independency at risk
- Proposed instrument better than a recapitalisation of NBM by MinFin

Possible role of the National Committee on Financial Stability (“NCFS”)

- Since topic is crucial for the financial stability of the country, we suggest discussing the issue at the NCFS

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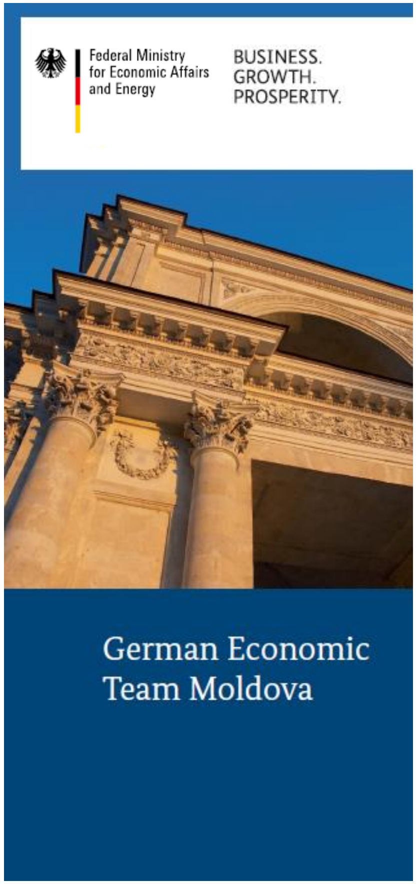

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