Action Plan for Housing Finance Policy for Kyrgyzstan

Current Version

Hans-Joachim Dübel
Finpolconsult, Berlin

Structure of the Presentation

Introduction:
Housing policy design and SMCs institutional framework

Section 1:
Refinancing through bonds: RMBS vs covered bonds, multi-issuer facility for Kyrgyzian lenders

Section 2:
Product design: suitable products for elevated interest rate levels, subsidy content and budgeting (housing assistance)

Section 3:
Contract savings for housing: promoting long-term KGS savings and safe high-LTV lending

Section 4:
Rental housing / leasing finance: policies for young and low-income households

Section 5:
Action plan summary

Introduction - Housing Policy Design

A policy framework for the housing sector that **defines institutions, assistance delivery channels and sector policies**:

Institution-building:

- Private sector (housing finance, private rental),
- Central government (agencies (SMC), property holding, main infrastructure),
- Local-government (co-operatives / local housing companies, beneficiary selection, feeder infrastructure, construction permits),
- Supporting institutions (courts / arbitration, land registry, securities registration etc).

Public housing assistance delivery:

- Product and subsidy design,
- Beneficiary income / wealth verification mechanisms, targeting,
- Relations between government and private sector (banks, rental investors).

Public housing sector policies:

- Regulation (civil code - mortgage, rental -, banks, housing / loan / securities investors), taxation,
- Public data, surveying services (e.g. rent surveys supporting a rent control system, household surveys, construction monitoring),
- Other, e.g. education, training.

→**SMC can address some, but not all of these issues.** Kyrgyzstan needs a more comprehensive institutional and policy framework and additional public players, e.g. a stronger role of local governments.

→**A housing policy framework law** should be developed (role of Law on Mortgage Crediting?).

Housing Policy Institutional Framework
Organization Form Follows Function

- Mortgage refinancing in KGS
  Financial institution
  - MoF, international agency, institutional funding
  - Bond funding

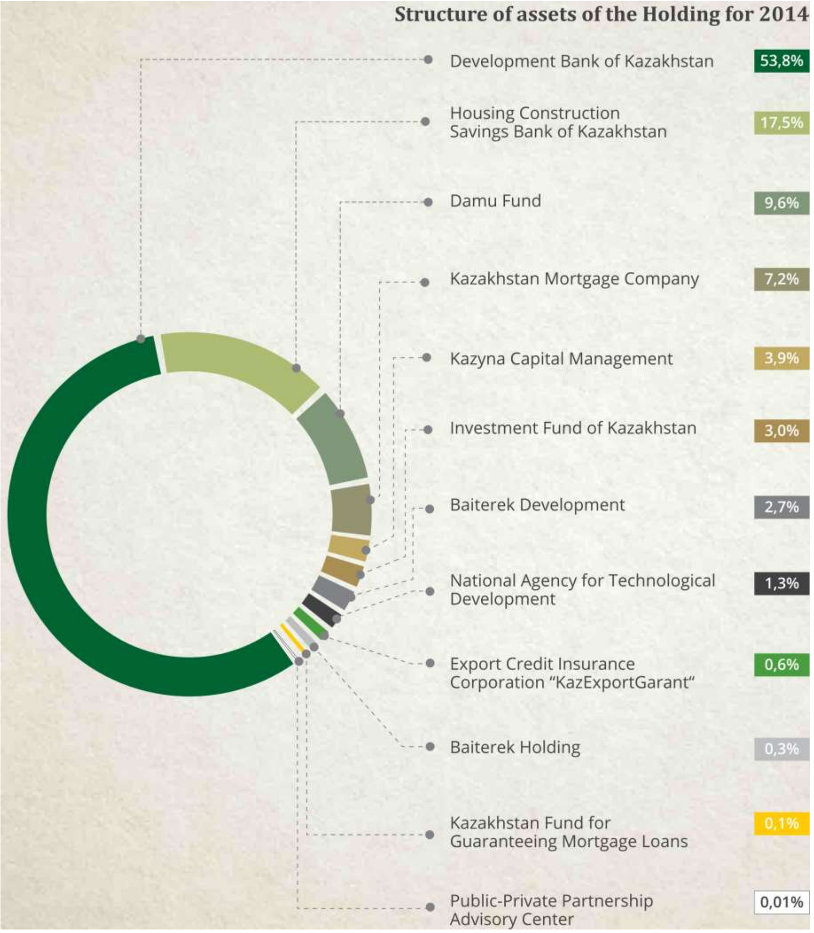
  Second-tier institution assisting banks (multi-issuer facility)
- Contract savings for housing
  Financial institution
  - Retail borrower funding

  Correspondent of banks
- Possibly mortgage insurance
  Financial institution
  - Bank funding (premia)

  Correspondent of banks
- Possibly housing property company
  Commercial investor offering leasing
  - MoF funding?

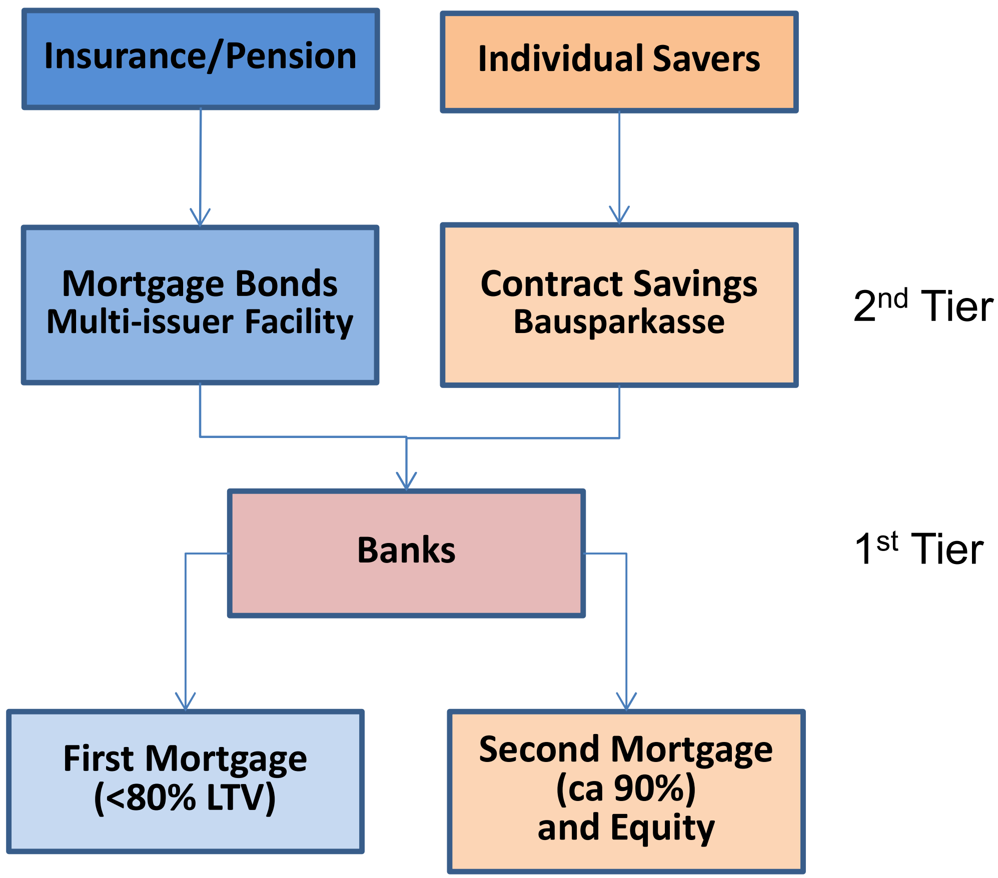
→ Financial institutions, investors must be separated from each other
(financing, cash flows, accounting, legal, staffing).

Example Baitarek Holding (Kazakhstan)



Housing Finance Institutional Framework
Two Tier System for Purchase/Construction Finance

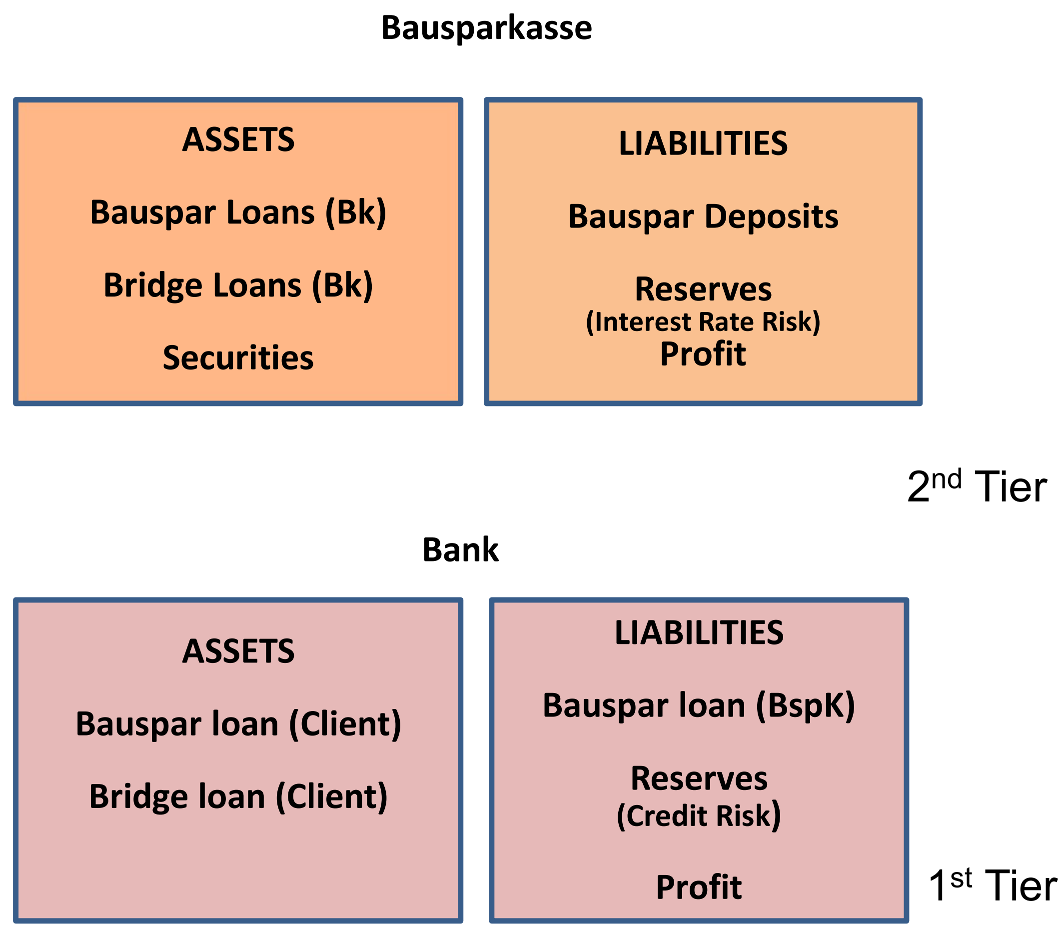
Concept of the System in Kyrgyzstan



- Split system creates
  - Safe bonds for institutional investors,
  - Accumulation of savings for individuals.
- Interest rate risk should be separated from credit risk in the Kyrgyzian context
  - Interest rate risk with the second tier,
  - Credit risk with the first tier.
  - First / second mortgage split enhances safety

Housing Finance Institutional Framework
Relationship between Banks and Bausparkasse (CSH Institution)

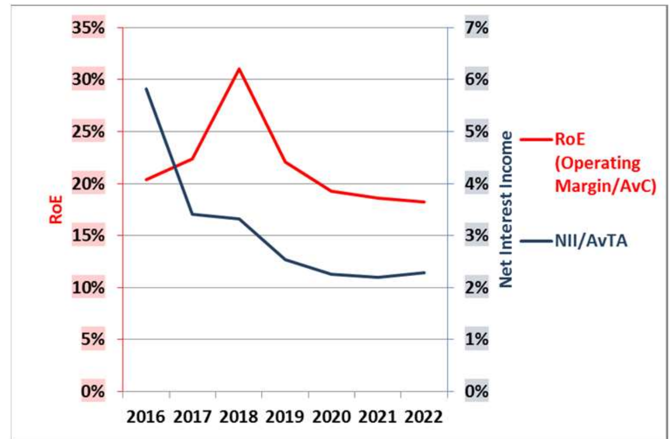
- Correspondent relation
  - Bank collects savings,
  - Bausparkasse accumulates, decides about investment,
  - Bausparkasse decides about eligibility for loan and premium,
  - Bank does loan origination,
  - Bank services, forecloses on loan.
- Ownership of second tier
  - Private joint ownership vs. public, PPP structure?
  - For PPP or private, proportional representation of banks/MFI?
  - Joint stock vs. LLC.



1. Mortgage Refinancing through Bonds
How Can SMCs Current Operations Be Made Sustainable?

SMC Balance Sheet | **based on 2016-2018 planning data**
million KGS | disregarding inflation

		2016	2017	2018	2019	2020	2021	2022
SocH	PFI loans, Social Housing	2,537	3,806	4,757	5,351	5,686	5,864	5,955
AHP	PFI loans, Affordable Housing		1,700	3,400	5,100	6,375	7,172	7,620
Treas	Deposits with financial institutions	1,403	300	300	300	300	300	300
	Cash balances	100	100	100	100	100	100	100
	Other assets							
	Total Assets	4,040	5,906	8,557	10,851	12,461	13,436	13,975
SocH	Government loan, Social Housing	3,700	3,700	4,700	4,700	4,700	4,700	4,700
AHP	Government loan, Affordable Hou		1,000	2,000	2,000	2,000	2,000	2,000
	KfW loan		700	700	700	700	700	700
	Other international			500	500	500	500	500
AHP	Debt securities issued	(0)	37	53	2,131	3,545	4,316	4,633
	Other liabilities	-	-	-	-	-	-	-
	Total Liabilities	3,700	5,437	7,953	10,031	11,445	12,216	12,533
Equity	Share capital	300	300	300	300	300	300	300
	General reserve	40	99	145	194	233	259	274
	Retained Earnings		69	160	326	483	660	868
	Total Capital	340	469	604	820	1,016	1,219	1,442
	Test	-	-	-	-	-	-	-



7-9% refinancing interest rates require **permanent 5% MoF funding**.

At funding rates of 14% and more this **is very costly** to the Kyrgyzian government**!**

SMC should receive **refinancing interest rates** in the range **of 12-14%** to **permit mixing bond funding with MoF funds.**

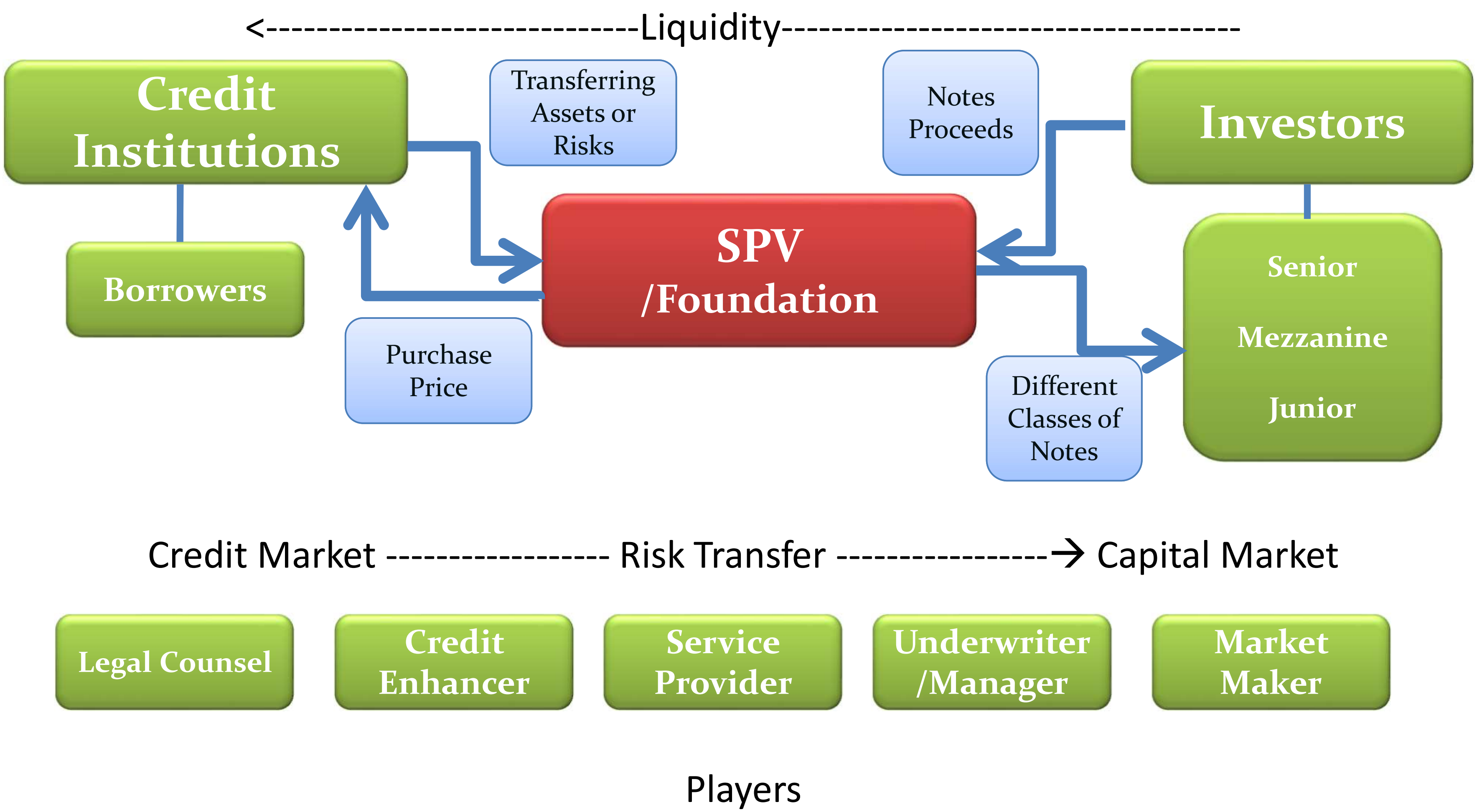
In this case, a **sustainable net interest margin (NII) and return on equity (RoE)** can be reached.

SMC Yields, Averages

		2016	2017	2018	2019	2020	2021	2022
S&A	PFI loans, Social Housing	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
AHP	PFI loans, Affordable Housing		14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
Treas	Deposits with financial institutions	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
	Cash balances	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
	Other assets	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
	Total Assets	10.4%	10.1%	10.6%	11.0%	11.2%	11.4%	11.4%
SocH	Government loan, Social Housing	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
AHP	Government loan, Affordable Hou		12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
	KfW loan		12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
	Other international			12.0%	12.0%	12.0%	12.0%	12.0%
AHP	Debt securities issued		14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
	Other liabilities	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
	Total Liabilities	5.0%	7.2%	7.9%	9.1%	9.7%	10.0%	10.1%
Equity	Share capital							
	General reserve							
	Retained Earnings							
	Total Capital	20.3%	22.4%	31.0%	22.1%	19.3%	18.6%	18.2%

Source: Finpolconsult computations.

Securitization Too Complex/Expensive



1. Mortgage Refinancing through Bonds

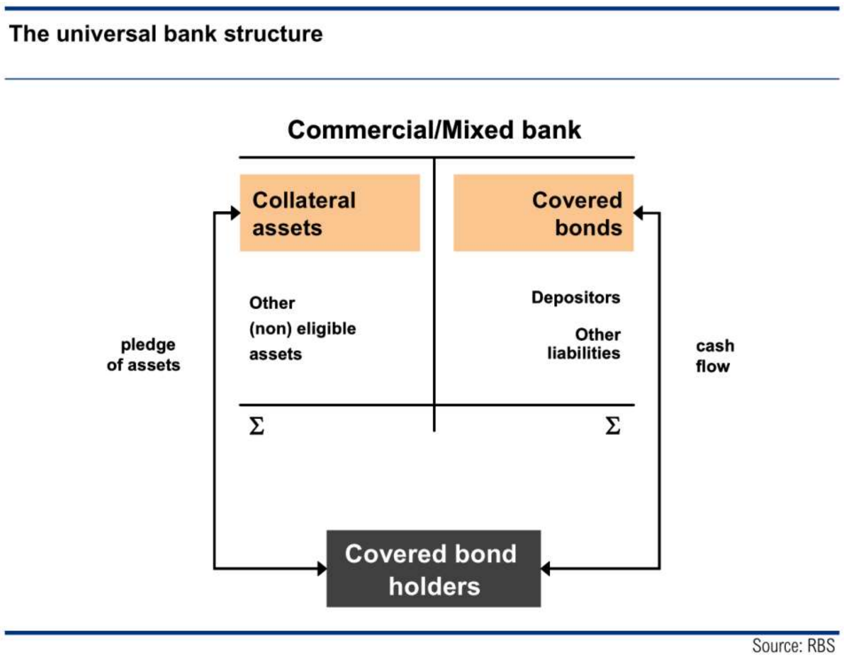
Mortgage-backed Securities (Law) Will Be Too Expensive, Does Not Enable Covered Bonds

Critique:

- Issuer definition not suitable
  - SMC is neither special purpose company nor bank,
  - Safety requires licensing of issuers (e.g. bank issuer by bank regulator).
- Costly disintermediated structure compared to a covered bond
  - Individual SEC registration instead of permanent issuance privilege,
  - Collateral transfer/re-registration,
  - Trustees and (private) depositories.
- Not suitable for dynamic pools issued by SMC
  - Dual guarantee needed in order to reduce reliance on mortgages,
  - No minimum quality, real estate valuation criteria,
  - No cover pool monitor overseeing substitution and undertaking due diligence,
  - Investors unable to manage pass-through of amortization and prepayments, issuer needs to manage, there need to be ALM rules, static and dynamic cover matching,
  - Multi-issuer facility needs to be enabled.

1. Mortgage Refinancing through Bonds
Differences Covered Bonds / RMBS

Simple Covered Bond Issuance Scheme, Universal Bank



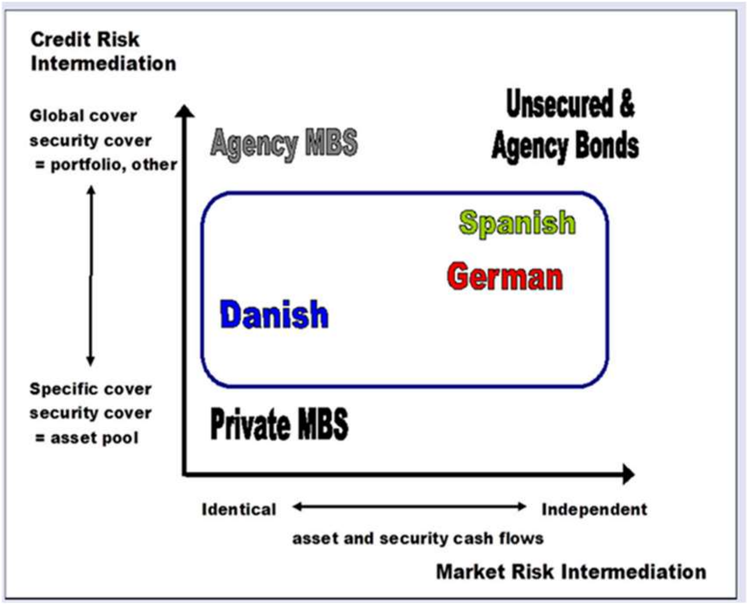
Source: RBS

Covered bonds:

- Straight bonds (non-amortizing, no prepayments) → market risk intermediation,
- On balance sheet (dual guarantee of bank credit and mortgages, bankruptcy segregation), substitution of loans, monitoring by independent cover pool monitor →credit risk intermediation
- Low-cost permanent issuance program (no individual deals, one prospectus for several bonds).

1. Mortgage Refinancing through Bonds
Differences Covered Bonds / RMBS

Intermediation, Differences Covered Bonds & MBS



Source: Paul/Fehr & Finpolconsult, RBS

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1. Mortgage Refinancing through Bonds

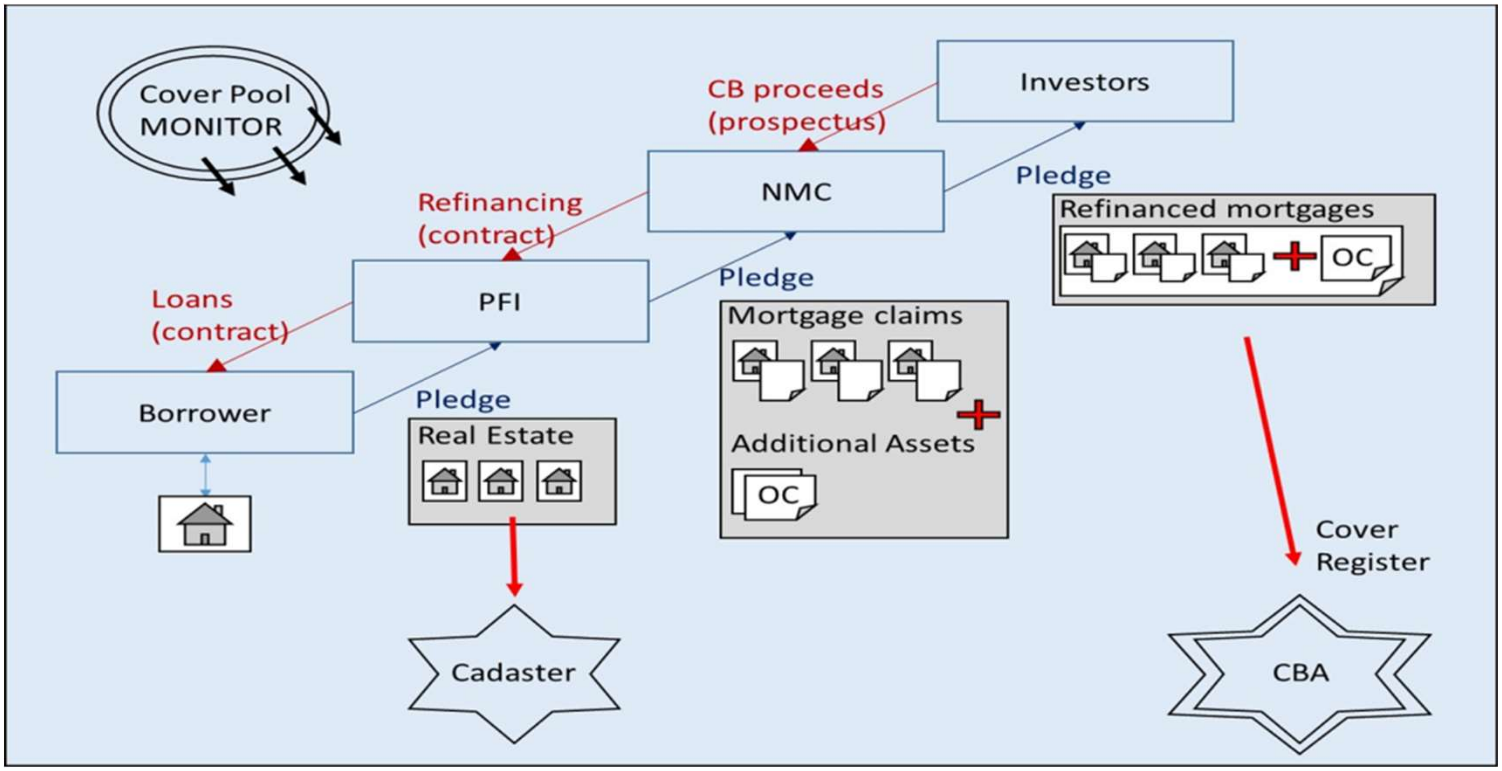
Implementation Concept (Multi-Issuer Facility for Covered Bonds)

- Covered bond law
  - Mortgage cover pool is created on balance sheet (no asset transfer, re-registration required),
  - Investors receive bankruptcy segregation privilege (change in bank insolvency code needed),
  - Static pool (quasi-RMBS) or dynamic pool (bank within a bank), ALM rules,
  - Bonds issued on the basis of dynamic pools are usually ‘straight’ (like government bonds), high investor demand,
  - Cover pool monitor with due diligence function on behalf of investors, needs internal data access,
  - Permanent issuer privilege (program) avoids multiple SEC registration, reporting on cover pool only.

Source: Finpolconsult NMC Armenia.

Mortgage Refinancing through Bonds
Implementation Concept (Multi-Issuer Facility for Covered Bonds)

Armenian Multi-Issuer Facility



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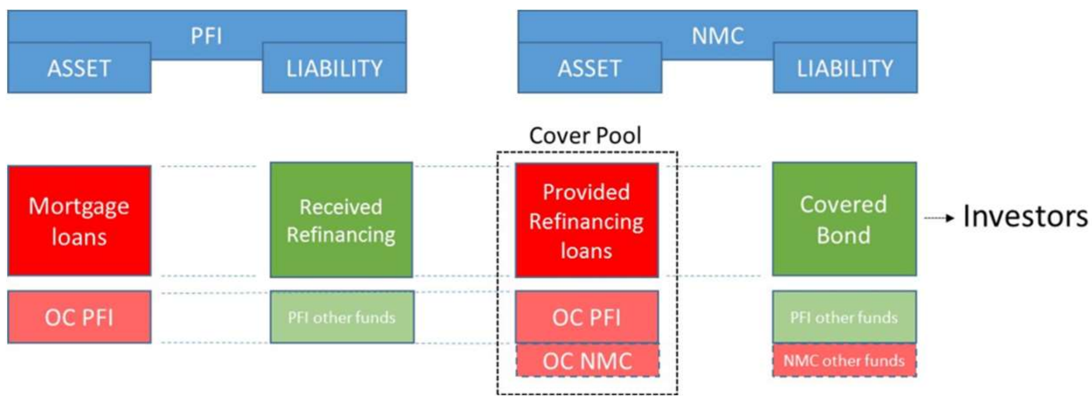
- Multi-issuer facility
  - SMC provides refinancing loans to banks backed by static cover pools and receives mortgage cash flow,
  - Refinancing loans are private (not-traded) covered bonds with same segregation rights as public (traded),
  - They form the cover pool against which SMC issues a menu of public bonds. SMC will do asset-liability management, as currently,
  - Banks provide overcollateralization to protect investors against credit risk, SMC ditto against interest rate risk.

Relations between Banks (PFI) and Multi-Issuer Facility



Source: Finpolconsult NMC Armenia.

1. Mortgage Refinancing through Bonds

Covered bonds Can Refinance Mildly Subsidized Loan Rates

BALANCE SHEET

ASSETS	Loan Maturity Years	Prepaym Rates % p.a.	Expected duration Years	Loan Amount Million	Loan Coupon %	Bond Coupon %	Bond Amount Million	Bond Duration Years	Bond maturity / first call date Years	LIABILITIES
PFI loans	15	2.0%	2.6	5000	9.5%	9.3%	5000	2.7	3.0	Bonds, long
Substitute	1	0.0%	1.0	310	8.0%		0			Bonds, short
Average/sum			2.5	5310	9.4%	9.3%	5000	2.7	3.0	Average/sum
							310			Overcollateralization

ALM TESTS

STATIC					DYNAMIC
Nominal Cover Matching		6.2%	1.0%	PASS	NPV Assets / NPV Liabilities > 101%
Yield Matching	PASS	1.2%			
Revenue Matching	PASS	7.5%	-1.23		Duration Gap in Months

Normal situation

Note: Armenian loans are 3 yr fixed-rate rollover mortgages → low duration

Loan rates should not be fixed for life to permit matching with bond maturities.

Note the higher refinancing loan rates (9.5%) while market rates are lower than in Kyrgyzstan.

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Substitute	1	0.0%	1.0	2100	15.0%	10.0%	3067	1.0	1.0	Bonds, short
Average/sum			2.1	7100	11.1%	11.1%	6567	1.9	2.1	Average/sum
							533			Overcollateralization

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Nominal Cover Matching		8.1%	1.0%	PASS	NPV Assets / NPV Liabilities > 101%
Yield Matching	PASS	0.5%			
Revenue Matching	PASS	8.7%	3.57		Duration Gap in Months

Market stress requires mild subsidization

Add substitute assets (bank deposits, government bonds) earning higher returns,

Issue cheaper shorter-term bonds, accept some mismatch (within legal limits).

Impossible to achieve with RMBS, requires good ALM.

Source: Finpolconsult computations, example reflects Armenian market context.

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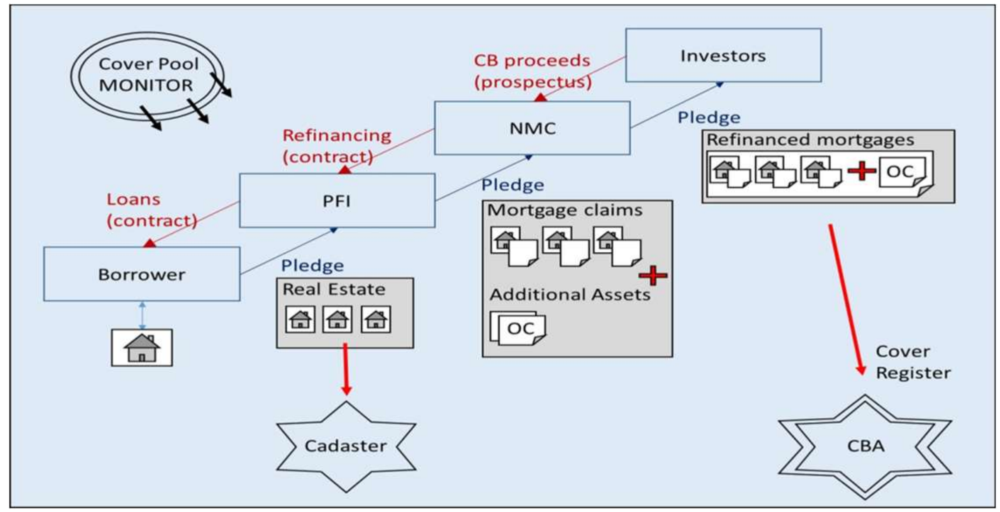
Armenian Multi-Issuer Facility



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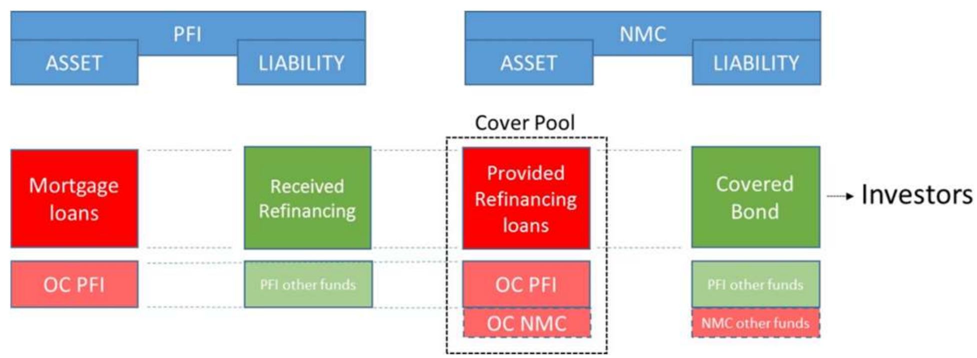
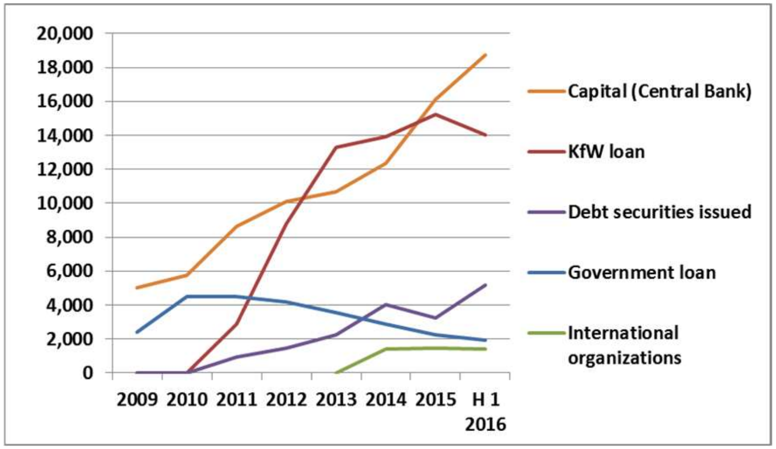


Source: Finpolconsult NMC Armenia.

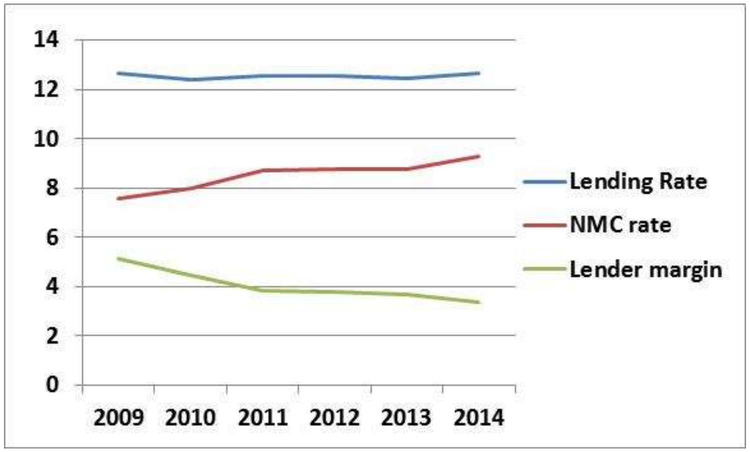
1. Mortgage Refinancing Through Bonds
NMC Armenia Performance

- **General refinancing facility in local currency**
  - Maximum loan limit USD 50K, total loan maximum USD 75K → almost not targeted.
- **Steadily increasing loan portfolio**
  - Loans to fin institutions per H 1 2016 = 79 mln USD, CAGR over H 1 2015 = 29%,
  - Growth is positively correlated with gap to market rates
  - Focal point for international agency (KfW, AfD) programs
  - Expansion from purchase finance into renovation / modernization loans
- **'Sustainable' despite market shocks**
  - Declining lender margins from 5% to 3.5% permitted increasing rates to from under 7.5% to 9.5%
  - Russian crisis has been weathered. Tapping the short-term bond market again.
    Per H 1 2016 14% of loans are bond-financed.
  - Central bank backup pivotal – accepts yields/RoE as low as 7% (= ca 4% real) and expands funding duration.
  - Result: managed local currency interest rates.

Resumed bond issuance after crisis, government support



Declining lender margins permitted NMC to reduce subsidies



Source: Finpolconsult computations.

1. Mortgage Refinancing through Bonds
Funding Will Have to be Mixed for Some Time

Hypothetical Program Cost of Funds and Target Interest Rates

	Soc Housing Pgm1		Rural Finance / AHP Pgm2		Middle-income HF Pgm3		Upper middle-income HF Pgm4	
	Rate	Share	Rate	Share	Rate	Share	Rate	Share
SMC funding mix								
Government	3.0%	100%	3.0%	50%	3.0%	0%	3.0%	0%
KfW/International	9.0%	0%	9.0%	50%	9.0%	100%	9.0%	50%
Bonds	12.0%	0%	12.0%	0%	12.0%	0%	12.0%	50%
Cost of funds	**3.0%**		**6.0%**		**9.0%**		**10.5%**	
SMC spread	2.0%		2.0%		2.0%		2.0%	
Max cost of funds to banks	**5.0%**		**8.0%**		**11.0%**		**12.5%**	
Bk spread	5.0%		5.0%		5.0%		5.0%	
Target rate	**10.0%**		**13.0%**		**16.0%**		**17.5%**	
Comment	Extremely costly to government		Very costly to government				Managed rate *Armenia*	

The indicated interest rates are illustrative only

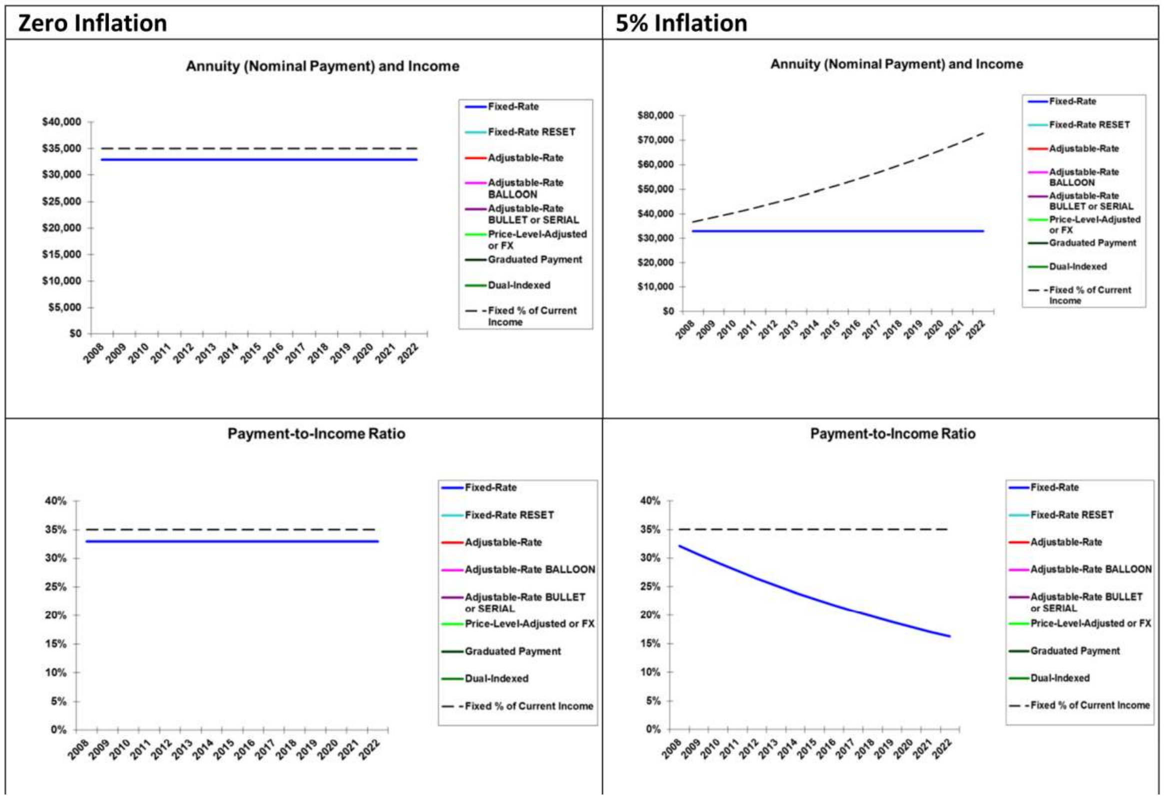
Source: Finpolconsult NMC Armenia.

2. Product and Subsidy Design

Tilt Effect – Problems With Standard Mortgages

Fixed-Rate Mortgages

6% Nominal Rate, Performance With and Without Inflation



- Borrowers are generally underwritten based on the initial payment to income ratio (e.g. in the example 35%)
- In the presence of inflation, borrower incomes and house prices will rise over time.
- As a result, the payment to income ratio and the loan to value ratio will fall over time.
- As a result, the financing burden is heavily biased – tilted – towards the first years of the loan.

2. Product and Subsidy Design
Tilt Effect – Problems With Standard Mortgages

- In real terms, the borrower in the presence of inflation will pay back a significantly larger portion of the cost of the house than in the presence of low or zero inflation.

- Specifically a fixed rate mortgage also implies risk of underper-formance for the lender in terms of the real return, leading him to charge higher interest rates in anticipation of future inflation.

- Lenders will charge a risk premium for potential real return underperformance, further increasing rates.

Fixed-Rate Mortgages

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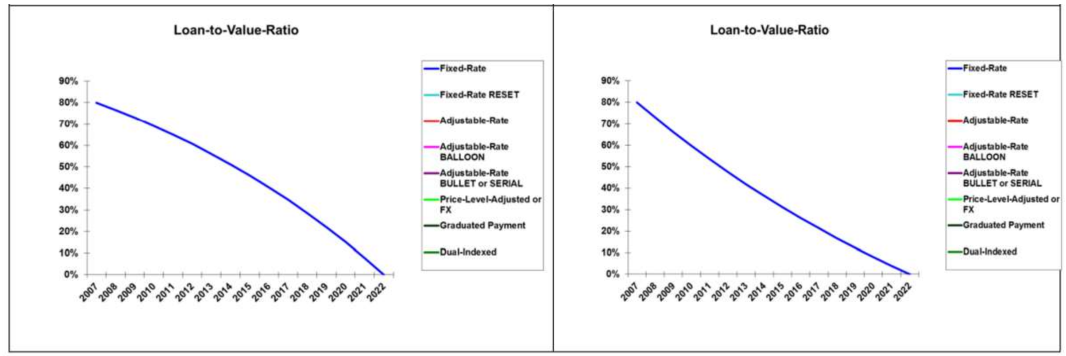

Lender profitability risk arising from FRM interest rate misspecification

	Constant Annuity	Nominal Rate	Real Return
FRM self-amortizing	10.30%	6.00%	6.00%

	Constant Annuity	Nominal Rate	Real Return
FRM self-amortizing	10.30%	6.00%	0.95%

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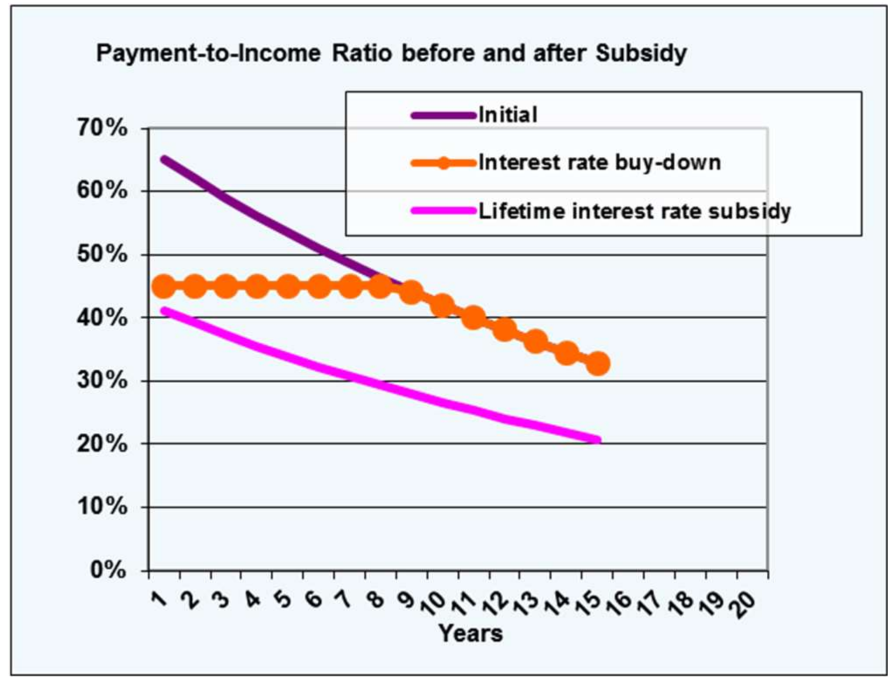
2. Product and Subsidy Design

How Can Kyrgyzstan Make 12-14% KGS Refinancing Loans* Affordable?

- **Lifetime loan subsidies**
  - Subsidies are provided during the entire lifetime of the loan, i.e. also in times when the PTI falls to low levels.
  - Lifetime interest rate subsidies are extremely wasteful

- **Interest buy-down**
  - Subsidies are provided only until the payment-to-income ratio drops under a certain threshold, example: 45%,
  - Addresses the initial cash flow gap,
  - Scale depends on income and inflation growth,
  - Gradually declines as affordability improves,
  - Still fiscally costly, but far less so than lifetime subsidies, by factor 2-3.

Interest buy-down mechanics

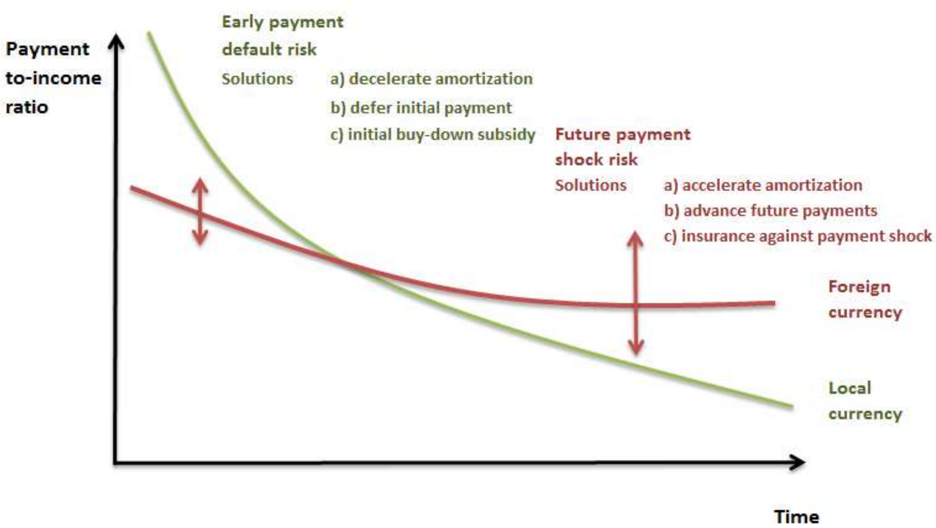


Interest buy-down can assist more than twice the number of beneficiaries compared to lifetime interest rate subsidies

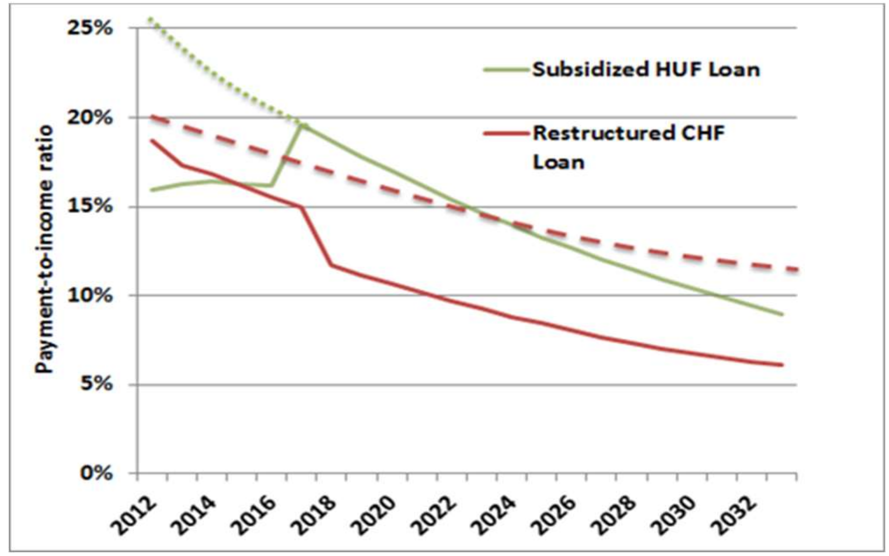
*leading to 17-19% interest rates for borrowers

2. Product and Subsidy Design
Comparison to Foreign Currency Lending

Tilt effect, strategies to address default risk in LC vs. FX mortgage lending (PTI profile)



Hungary – PTI profile of HUF / CHF loan products post subsidies / restructuring



- LC demands initial burden reduction..
  - Interest rate buy-down subsidies (Czech rep, Hungary),
- ..or shift of burden to later phases (interest loan, capitalization)
  - Reduced initial amortization,
  - Lower initial rates.
- FX creates automatic shift, but high risk.

Source: central banks, FHB, Finpolconsult.

2. Product and Subsidy Design

How Can Kyrgyzystan Make 12-14% KGS Refinancing Loans* Affordable?

- **Goal**: defer interest or principal payment to balance the payment to income (PTI) profile

- **Product options**:

  – **Graduated payment mortgage**
  Start with lower mortgage rates which are gradually increased to a rate that permits claw-back of the initial rate discount,

  – **Interest loan**
  Instead of subsidies, provide a second loan to finance the unaffordable initial debt service, claw back at a later state (maturity extension),

  – **Price-level adjusted mortgage (PLAM)**
  Charge real interest rate over an outstanding that is increased with inflation, may lead to negative amortization if inflation is higher than the scheduled amortization

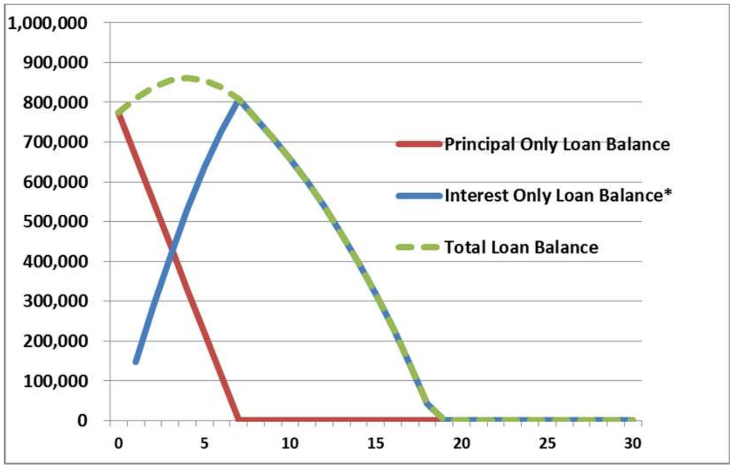
  – **FX mortgage with devaluation protection**
  FX always carries negative amortization risks, shocks could be mitigated by swaps, caps and risk sharing arrangements

Source: Finpolconsult computations.

2. Product and Subsidy Design

Interest Loan Product (‘Lebanese’*, IVc)

Two loans: principal only (bank) and interest loan (agency)



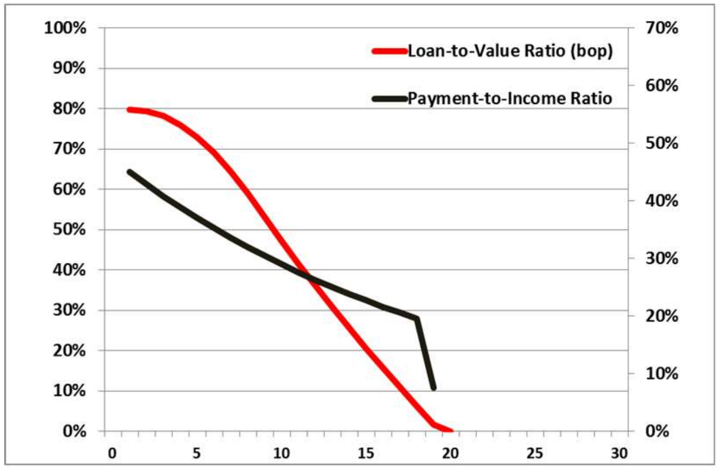
Combines two loans, resulting in **slightly ballooning total outstanding**.

Example: 14% refinancing loan to banks and 7% interest loan to consumers (via banks).

The higher the rate on the interest loan charged by the agency, the longer will be the maturity.

Convenient for banks as the principal-only loan has a short duration. PO loan can be refinanced by bank term deposits.

Risk parameters (LTV, PTI) **fine at 5% inflation**.
Moderate subsidy content.



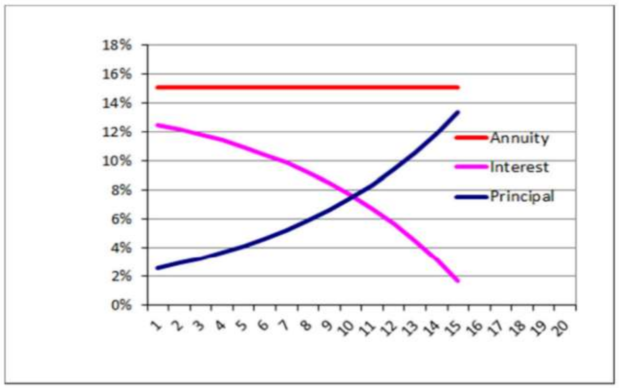
*applied by the Institute for Public Housing in Lebanon

Source: Finpolconsult computations.

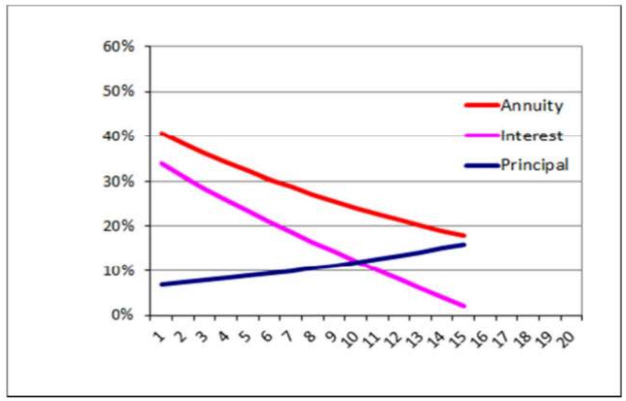
2. Product and Subsidy Design
Graduated Payment Mortgage

Debt Service Decomposition % of Initial Loan Out-standing – 12 Year Maturity	Payment-to-Income Profile, Assuming 5% Income Inflation – 12 Year Maturity

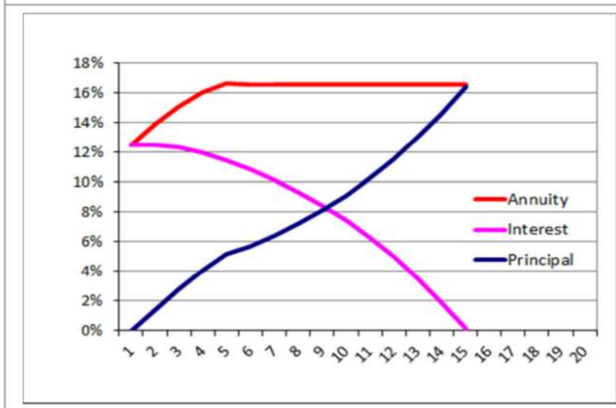
... 15 Year Maturity



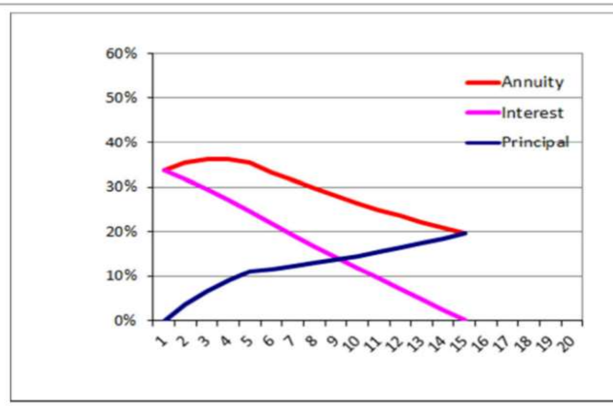
... 15 Year Maturity



... 15 Year Maturity & Graduated Payment



... 15 Year Maturity & Graduated Payment



- Borrower cash flow impact as interest buy-down - focused on the initial years of the financing.
- The initial rate discount clawed back later in the life of the loan.
- Avoids payment-to-income (PTI) ratio targeting, but then there is risk that the PTI increases.
- A single loan containing an implicit interest loan.
- Non-ballooning, without maturity extension.

Less affordable than 'Lebanese' product, but avoids legal issues.

2. Product and Subsidy Design
Implementation Concept

- Products and their sales practices need to be legally enabled: dedicated **mortgage consumer protection legislation** for Kyrgyzstan covering
  - Advertisement,
  - Rate / cost information (APRC), risk transparency,
  - Product design limits,
  - Risk protection.

- Products need to be properly **financially regulated**
  - KGS preferred over FX,
  - Amortizing preferred over ballooning (but there must be a balance),
  - Discourage funding through very short-term KGS deposits (important for SMCs business!),
  - E.g. through capital requirements, matching rules.

- There must be **fiscal accounting** of **mortgage subsidies**
  - Subsidies must be budgeted, and this on a net present value and not cash basis,
  - Only sound accounting permits explicit up-front subsidies (e.g. cash saving premiums) to be compared with hidden / future subsidies (e.g. below market loans).

- **Target groups** of housing finance policy must be **properly identified**
  - Household survey, both urban and rural,
  - Panel data, regular studies/interviews.

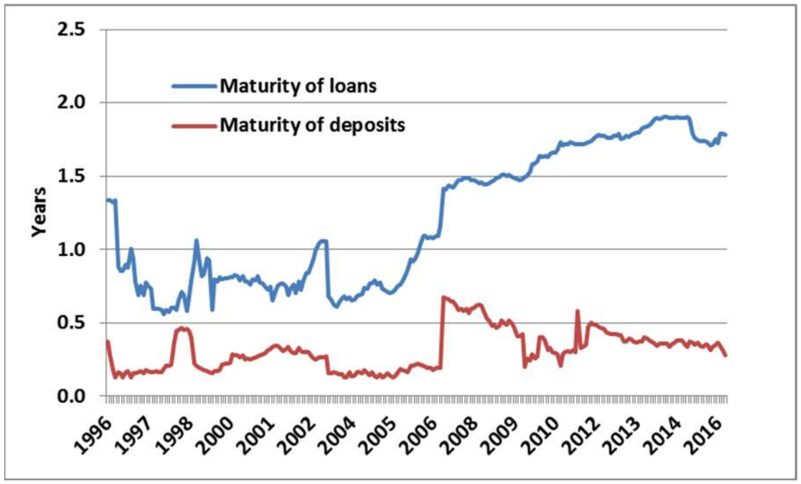
- Assistance windows must be clearly defined and **targeted** to different groups **by their subsidy content**
  - Leasing/rental → very low income, non-bankable,
  - Buy-down → low income, bankable,
  - Interest loan → lower-middle income, bankable,
  - Contract savings for housing with absolute premium limit, self-targeting,
  - Other: downpayment subsidy for young families?

- Creation of a **housing assistance unit / fund** under the SMC
  - SMC needs to monitor bank beneficiary selection under the current refinancing program already,
  - Expand role, e.g. through field offices that permit direct communication with beneficiaries and local governments,
  - Possibly permit SMC to distribute cash subsidies.

3. Contract Savings for Housing (Bausparen)

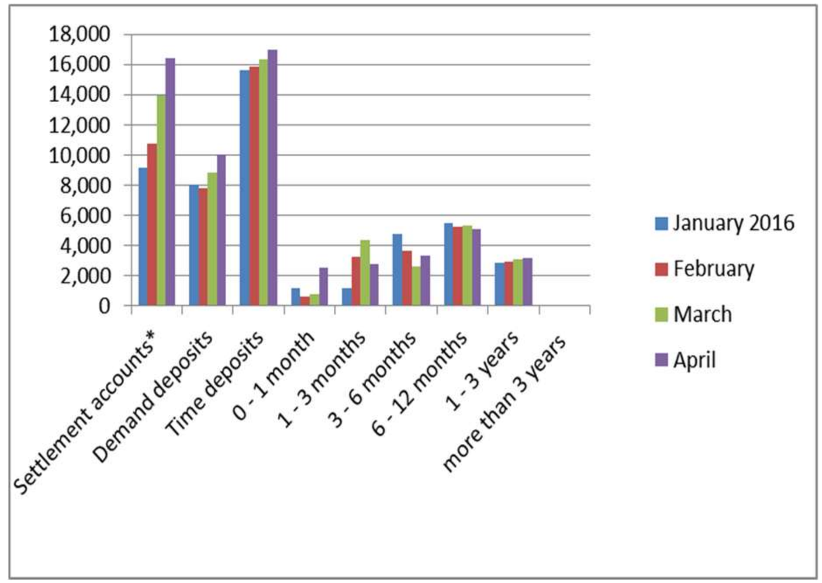
How Can Kyrgyzian Housing Finance Attract More Long-term KGS Deposits?

Loan and Deposit Maturities in KGS



Source: National Bank, Finpolconsult computations.

KGS Deposit Maturities in Early 2016, million KGS

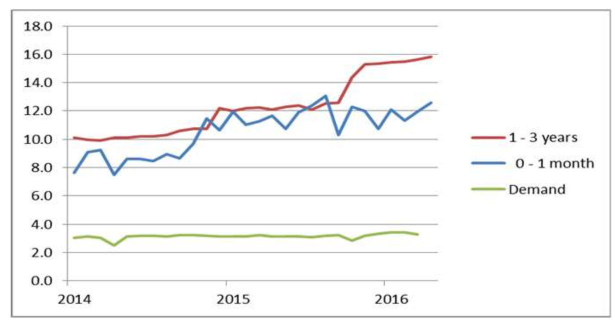


Long-term deposits are needed to match-fund housing loans

- 2016 surge in demand for KGS only in short-term accounts,
- Maturity gap to FX deposits has further increased.
- What motivates Kyrgyzians to save long-term in LC?

→ Motive of **saving for housing down-payment** and/or a **below market rate loan.**

KGS Deposit Pricing



3. Contract Savings for Housing

How to Structure the High-LTV Market – Savings or Insurance?

Alternative High-LTV Solutions

Example LTV	Banks only	Banks & Bauspar	 Insurance	Function
70	Loan	Loan	Loan	Self insurance
80	Loan	Loan	Loan	
85	Loan	Loan	Loan	Bauspar or
90	Equity	Equity	Loan	Insurance
95	Equity	Equity	Equity	
100				Catastrophic risk
105		Negative equity		(prices fall, LTVs rise)
110				

Impact analysis

Credit risk	Lower LTV	Lower LTV	Higher LTV
Access to credit	Limited access	Access through savings	Immediate access
Funding needs	Positive	Positive	Negative

CSH **reduces the LTV**, other things being equal, by **providing an additional equity portion**, which requires prior savings.

3. Contract Savings for Housing
Contract Savings as a Second Mortgage Product

CSH Product as a Second Mortgage (high-LTV)
3 Years of Savings of KGS 6,000/Month at 5%, 10% Premium

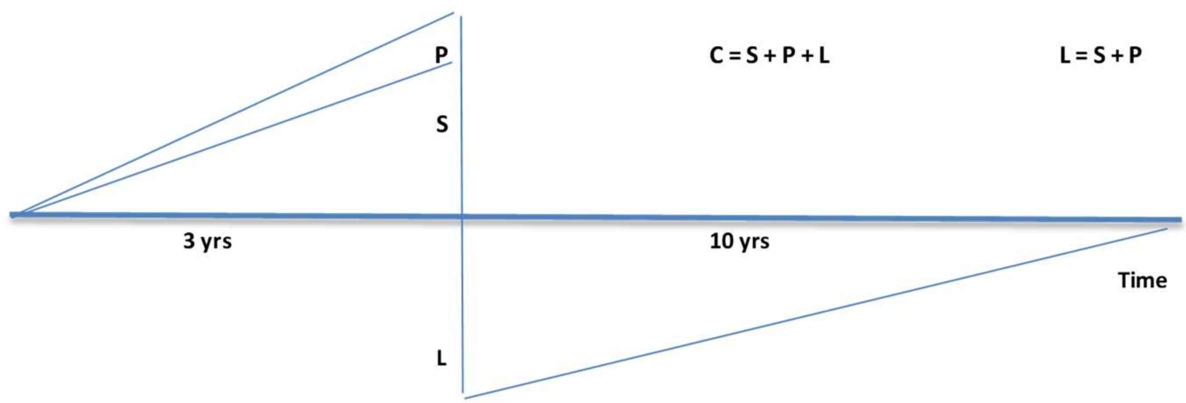
	FINANCING					DEBT SERVICE		
	Rank	Name	Volume *1,000 KGS	Loan-to-Value Cumulative	Loan-to-Value Individual	Interest	Debt service *1,000 KGS	Maturity
Loans	1	First M Loan	948	63.2%	63.2%	19.0%	16.2	15.0
	2	CSH Loan	290	**82.5%**	19.3%	10.0%	3.9	10.0
Savings	Savings	CSH acc S	238	98.4%	15.9%	*5%*	0.0	
Government	Subsidy	CSH acc P	24	100.0%	1.6%	*10%*	0.0	
	Equity	Own funds	0	100.0%	0.0%		0.0	
		House Price	**1500**			16.9%	20.1	13.8

CSH loans are **best suited** for **smaller investments** and **second mortgage lending** (see example).

Support through **LTV regulations?** E.g. Armenia NMC with max 70% LTV.

Source: Finpolconsult computations.

3. Contract Savings for Housing
Basic Contract Savings Mathematics



CSH loans need to be **proportional to accumulated savings and premium**.

A difference can occur when there are ‘good brothers’ who do not take a loan.

Minimum savings period of 1.5 (Slovakia) – 3 (Kaz) years, Germany 5 years.

CSH loans **cannot finance an entire house**, unless there are very long savings periods.

Source: Finpolconsult computations.

3. Contract Savings for Housing

Basic Contract Savings Mathematics

Feasible Contract Menu

Countries		Volumes				Financial Variables						Performance Indicators			
		Savings Volume (% or CU)	Premiums	Loan	Contract Sum	Savings Payment	Premium	Interest	Loan Interest	Savings Period, Years[2]	Loan	Savings / Contr Sum	Acc. Savings & Premiums	Static Indicator	NPV-based Indicator
		Acc S	Acc P	L	C	S(t)	P(t)/S(t)	i(S)	i(L)	t(s)	t(l)	Acc S / C	Acc S&P / C	Acc S&P / L	% of CS
Generic		**500**		**500**	1000							0.50			
Generic		**250**		**750**	1000							0.25			
Germany		618	49	**742**	1360	**120**	**8%**	**1.0%**	**3.0%**	**5**	**15**	0.45	0.49	0.90	1.5%
Kyrgyzstan	Option	238	24	**291**	530	**72**	**10%**	**5.0%**	**10.0%**	**3**	**10**	0.45	0.50	0.90	8.5%
Kaz 1	Bastau	244	49	**325**	570	72	**20%**	2.0%	5.0%	3.25	6	0.43	0.51	0.90	11.0%
Kaz 2	Orken	423	85	**563**	986	72	20%	2.0%	4.5%	5.5	10	0.43	0.51	0.90	6.3%
Kaz 3	Kemel	673	135	**898**	1571	72	20%	2.0%	4.0%	8.5	15	0.43	0.51	0.90	-5.0%
Kaz 4	Bolaschak	1270	254	**1693**	2963	72	20%	2.0%	3.5%	15	25	0.43	0.51	0.90	-44.2%

Some **simple mathematical truths**

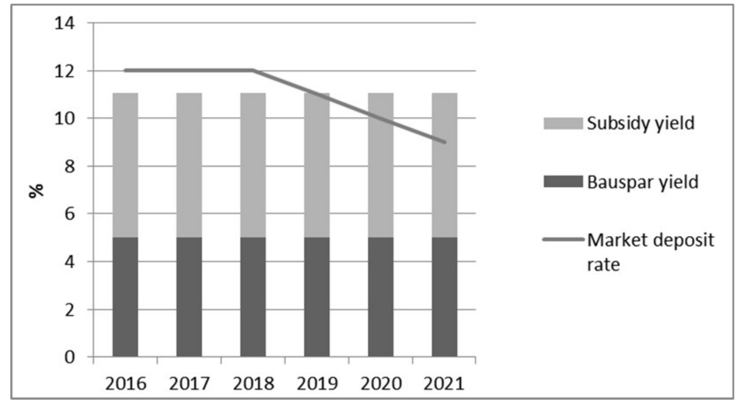
- On a net present value basis, the **advantage from a below-market loan must be proportional to the disadvantage of saving below market.**
- Additional savings yield through **savings premium,** accrued each month and paid out at the maturity of the contract.

Source: Finpolconsult computations.

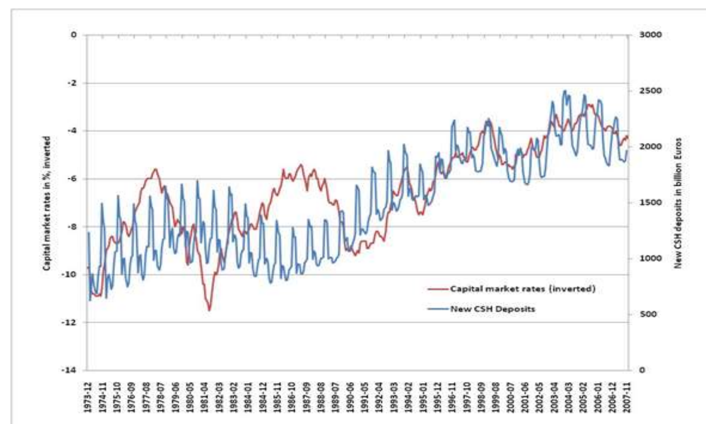
3. Contract Savings for Housing
Implementation Concept

- **Enabling law** defining product range, institution and investment options
  - Contract design parameters: minimum savings effort, loan/savings multiples, NPV-based evaluation,
  - Institution: special bank with minimum ALM and reserve requirements,
  - Investment: alternative housing investments in preliminary and interim loans, covered bonds.
  - Principles of state support: conditions, withdrawal.
- **Annual budget law** defining premium/subsidy <u>levels</u>
  - Note: demand may be explosive if premia are too high, thus reduction when market rates fall,
  - Kyrgyzstan may start with 10% (Kaz 20%) premium level.
- Proposal: **new specialized institution under SMC** that distributes through the banks. Advantages:
  - Government claws back premium through profits of Zhilstroysberbank highly profitable,
  - Potentially implementation of other housing loan programs,
  - Banks and mortgage market are too small to afford more than one special bank,
  - Can be privatized in the future (ex. Zhilstroysberbank).
- Important: stabilizing demand requires **regulation of high LTV lending**, no cannibalization by other SMC programs.

Subsidy Scenario: Savings Premiums Can Be Reduced When Bank Deposit Rates Fall



Demand Fluctuations Require Good Asset-Liability Management and Technical Reserves



Source: Finpolconsult computations.

4. Rental Housing / Leasing Finance
Initial Concept

Target groups

- Young and very low-income, non-bankable households,
- Heterogeneous types of investors.

An initiative requires **prior studying** of the

- **Investment environment** for both private and public rental housing (rental law, other legal and tax situation, enabling laws of institutions),
- **Investment capacity** of different types of investors,
- **Demand**, based on specific location and types of units.

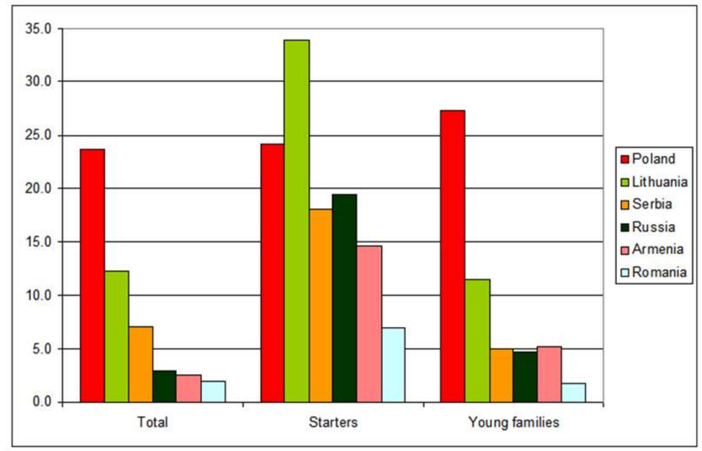
SMC could offer finance initially in two ways:

- **Retail l**easing (rental with purchase option) based on a stock of housing units to be acquired by herself or a public property investment company,
- Liaise with local governments to **create local non-profit or public investors** and advise them on financial management. Then **directly finance** those investors with long-term funding.

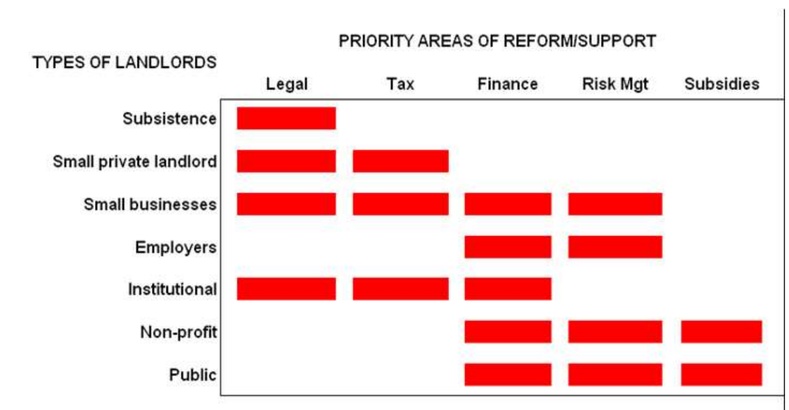
Model: **BGK in Poland**, which refinances the non-profit 'TBS' system of local government initiated housing companies.

Rental finance is mostly corporate and not strictly mortgage finance. Nevertheless banks often prefer lending to companies over individual retail mortgages and thus **SMC could also refinance bank portfolios**.

Private Rental Housing is Essential for Housing the Young, % of Tenure



Priority Areas of Support for Rental Investors



Source: Finpolconsult, 2006 World Bank study.

5. Action Plan Summary

Institutional Development of SMC, Housing Policy Development

Housing Policy Design and SMC Institutional Framework:

- Housing policy framework law,
- Conversion of SMC into holding structure.

Refinancing through bonds

- Covered bond law,
- Multi-issuer facility for Kyrgyzian lenders,
- Master servicing IT solution for SMC.

Product and subsidy design

- Consumer protection legislation enabling products,
- Interest buy-down, interest loan,
- Housing assistance unit / fund.

Contract savings for housing

- Contract savings for housing law,
- Amendment to budget law,
- Creation of specialized institution.

Rental housing / leasing finance concept

- Studies, legal reform preparation,
- Creation of property company?

Additionally:

Explore construction finance facility to incentivize low-cost developers

SMC risk management and IT support

- Mortgage ALM training / risk manager
- Analytical banking IT