Lessons from Introducing Contractual Savings for Housing Schemes in Transition Countries

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Abbreviations

CEE	Central and Eastern Europe
CEL	Compte Epargne Logement (French contract savings product)
CSH	Contract Savings for Housing
CZK	Czech Koruna
EUR	Euro
GDP	Gross Domestic Product
IMF	International Monetary Fund
HUF	Hungarian Forint
LHS	Left-hand side
LTV	Loan-to-value (ratio)
KZT	Kazakh Tenge
PEL	Plan Epargne Logement (French contract savings product)
RHS	Right-hand side
SLK	Slovakian Koruna
USD	US-Dollar
ZSSB	Zhilstroysberbank

Terminology convention

The terms 'Bausparen' and 'Bausparkasse' are used as synonymous to 'Contract Savings for Housing' and 'Contract Savings for Housing Institution' throughout this study.

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Lessons from Introducing Contractual Savings for Housing Schemes Internationally

In this study, international experiences with contractual savings for housing (CSH) are evaluated. The transition country cases of interest that introduced the German Bausparkasse model are Kazakhstan, Hungary, Czech Republic and Slovakia. They display a mix of macroeconomic, financial market, institutional development and fiscal policy experiences and thus insights on the success conditions for introducing the German system. In addition, the universal banking case of France is considered.[1]

A. General Features of CSH Schemes

The following features of scheme are of interest:

- Ring-fencing features, i.e. setup as open or closed schemes and associated basic regulatory risk management framework
- Interest rate risk management features, i.e. whether loan rates are fixed or variable, and thus an interest rate option is provided, and termination options
- Liquidity risk management features, especially minimum savings period, loan volume and maturity as well as amortization
- Credit risk management features, i.e. spreads and access conditions
- Fiscal support features regarding the size of the premium

1. Ring-fencing and Risk Management Framework

Open schemes: an open scheme delinks CSH loan assets and CSH deposits and merges both with other assets and liabilities on a universal bank balance sheet without a specific ring-fencing mechanism. CSH deposits as a result serve as one of several long-term funding sources for long-term housing loans, e.g. next to covered bonds, or even funding all long-term loans and securities held by the bank, while CSH loans are just another long-term asset class to manage.

The offering of CSH contracts in this way is governed by general asset-liability management regulations applicable to universal banks and also global program requirements, which e.g. demand a use of deposits to refinance housing loans. There is no specialized supervision of the schemes. However, within the better regulated open schemes CSH contract parameters are standardized in order to limit the risk of a Ponzi scheme.[2]

This system is practiced in France regarding the Epargne Logement CSH contracts.[3]

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[1] The Consultant was unable to receive more detailed information on a recently established scheme in Turkey and proposes to drop the comparator.

[2] See Duebel (2004b) on Bank Maskan of Iran, the national housing bank, for a failed CSH scheme set up under universal bank regulation. Inter alia Bank Maskan offered too short savings periods vs. loan maturities and too large loan volumes vs. savings collected. By 2004 it had large numbers of unfulfilled below-market loan promises and long waiting periods for disbursement.

[3] British building societies, the historic predecessor of German Bausparkassen from the 19th century, offer a weaker form of CSH contracts in an open scheme. In a building society, regular savings of a depositor in short-term

Closed schemes: a closed scheme links CSH loan assets and deposits legally through a ring-fencing mechanism, e.g. a special bank, and economically through credit and asset-liability risk management rules. A closed system works under the assumptions that no other liabilities will be issued to fund CSH loans and liquidity will only be invested in a predetermined range of eligible assets, with regulation preferring assets with direct or indirect housing purposes. In the ideal case, special ALM policies limit contract design, the funding of non-CSH housing loans, and the creation and use of technical reserves in order to safeguard that CSH loans can be disbursed without or a minimized waiting period.

This system is practiced in all other case countries. However, while these have introduced special enabling laws, the detail of the regulatory framework differs drastically. Apart from Germany, of the four transition countries a special bank is required only in Hungary and Kazakhstan while the Czech republic and Slovakia treat Bausparkassen as universal banks. Moreover, only Germany has detailed implementing ALM and credit regulation and specialized Bausparkassen supervision while the transition country systems, even including in Hungary and Kazakhstan, where special banks are required, are de-facto self-regulating as far as risk management is concerned.

2. Interest rate Risk Management Features

Variable rate lending: in open schemes, future CSH loan interest rates are typically for asset-liability management reasons not fixed ex-ante. The French variable rate *compte épargne logement* (CEL) is the classic case: here both savings and loan rates are variable where savings rates are oriented at the French savings passbook Livret A (currently 1.5% and 3%).

Fixed rate lending: however, France with the *plan épargne logement* (PEL) has also introduced a fixed rate contract under an open scheme in which fixed-rate savings and fixed-rate loans are managed under the general ALM of the universal bank subject to product regulation.

Closed systems are designed to offer future fixed loan rates to maturity ex-ante. This is the practice in Germany, Czech Republic, Hungary and Kazakhstan. However, schemes that push the actuarially sound envelope of minimum savings downwards may have to use loan interest rate adjustment options by the Bausparkasse.

- In Slovakia loan interest rates are initially fixed in advance, but can be adjusted during the credit term every 5 years. Due to high loan demand, most CSH loans are taken up before the minimum savings period has been reached. Moreover, CSH loans in Slovakia can be very long-term, i.e. up to 30 years. Therefore, both loan to savings multipliers regarding the individual saver contribution and loan-to-deposit ratios on the balance sheet are too high from an actuarial perspective in order to offer fixed rates to maturity. The risk is high that the Bausparkasse may have to tap market funds, a risk that can be addressed by the Bausparkasse either arranging a technical reserve fund or keeping the contractual option of adjusting loan interest rates.

deposits also provide a right to obtain a loan. While building societies are a special bank charter, the specialization refers to its asset profile and not risk management. Remuneration for both savings and deposits is in variable rates to limit ALM risk.

Table 1: CSH Scheme Interest Rate Risk Features in Comparator Countries			
		Closed system	
		YES	NO
Loan rate fixed to maturity	NO	Slovakia	France CEL
	YES	Germany, Hungary, Czech Republic, Kazakhstan	France PEL

3. Liquidity Risk Management Features

Determinants: the liquidity situation of a CSH scheme is a function of contract parameters and pricing conditions relative to the market, esp. bank deposits and bank mortgage loans, that determine household savings and loan option exercise behavior, as well as in the closed schemes global liquidity rules. Minimum savings periods, penalties for savings termination, limits on loan volumes relative to accumulated savings, limits to loan maturities, limits to advance and interim loan volumes, serial loan amortization and usually a prepayment option without penalties serve as mechanisms to limit liquidity risk.

CSH contract proportionality principle: CSH contract parameters through regulatory ratios need to be sufficiently conservatively calibrated in order to safeguard the proportionality principle between individual saver contributions to liquidity and their loan demands drawing from liquidity:

- The four CSH schemes offered by Zhilstroysberbank (ZSSB) in Kazakhstan observe a strict proportionality between savings period and loan maturity for four different lengths of savings periods and loan maturities. They represent the historic close scheme CSH contract design.
- Germany still demands a 7-year savings period for premium eligibility. However, contract design today is flexible. The proportionality principle is safeguarded through actuarial calculations that need to be laid down in complex simulations models vetted by regulators.[4] Regulators need to give clearance to each proposed contract design.
- France, due to the open system nature under both types of CSH products, CEL and PEL, permits loan maturities that are significantly longer than savings periods. This is riskier for the PEL, where loan rates are fixed in advance. However, eligible loan volume remains limited by actuarial conditions relative to accumulated savings imposed by the regulators.[5] For example, shorter loan maturities will permit higher loan volumes.

Advance and interim loans: advance and interim loans break through the proportionality principle. CSH schemes in the Czech republic and Slovakia demand a minimum of 6 years savings yet, as a concession to high housing loan demand, both have established exceptions for savers willing to take a housing loan after only 2 years, with the time span to the completion of the savings period being bridged by an interim loan. The typical interim loan here is equal in size to the CSH loan and will be prepaid by it once the CSH savings contract matures. Hungary, in contrast, does not seem to practice advance and interim loans and in exchange operates with the rather short typical savings period of 4 years.

[4] The models need to forecast liquidity on a quarterly basis for 15 years and map the entire optionality of household savings and loan exercise behavior, including empirically calibrated assumptions for exercise. For example, loan exercise is a function of the ratio of market loan interest rates and CSH loan interest rates as well as exercise behavior of saver-borrowers.

[5] More specifically, the sum of interest paid by the borrower on the loan must not exceed the sum of interest received by him on the savings deposit by 150%.

Kazakhstan is an outlier in permitting not only interim loans as well as advance loans without prior savings; in both cases Zhilstroysberbank also finances loans volumes that can be significantly higher than the actuarially implied loan volume limits under standard CSH contracts and thus cannot be entirely prepaid by CSH loans.

Germany also practices advance loans without prior savings, which are prepaid as the CSH contract sum becomes allotted, as well. However, Germany is the only case where this is practiced under strict implementing regulations that limit both advance and interim loan volume limits relative to deposits as well as the issuance of both types of loans relative to CSH loans.

Amortization and early repayment: closed CSH schemes often feature serial amortization (in same instalments) in order to expedite capital repayment to the saver collective and safeguard collective liquidity. An example is Slovakia, where this contract design feature of fixed to term interest rates limits the otherwise high liquidity risk.

In addition, CSH loans everywhere in the case countries can be prepaid without indemnity, including in Germany where standard mortgages are generally subject to indemnities. This feature stems from the high inflation phase and has led to problems in the current low rate environment in some countries, e.g. Austria.

Table 2: CSH Scheme Features in Comparator Countries

	Germany	Hungary	Kazakhstan	Czech Republic	Slovakia	France CEL	France PEL
Typical product features							
Set by	Bausparkasse	Bausparkasse	Bausparkasse	Bausparkasse	Bausparkasse	State	State
Min savings period, housing use	2	4	3.25*	2	2	1.5	3
Min savings period, savings only	7*	not possible	5.5	6	6	1.5	4
Loan maturity	8 - 18	5-10	10	8 - 15	6 - 20	2 - 15	2 - 15
Savings interest rate	0.1%	0,1-1,15%	2.0%	1.0%	0,1-0,5%	1.5%	2.5%
Loan interest rate	2.4%	3,0-6,0%	4.5%	4%	2,9-3,4%	3%	4.2%
Fixed/variable loan interest rate ex ante	Fixed	Fixed	Fixed	Fixed	Fixed up to 7 yrs	Variable	Fixed
Loan amount limit, % of savings	100-300%	150%	Ca 150%	Ca 150%	100-300%	Depending on maturity	
Fiscal regime							
Premium level	8.8%	30%	20%	10%	5.0%	implied 0.5%	implied 2%
Tied to housing use	Yes	Yes	No	No	Yes	Yes	Yes
Income tax on deposit interest	26% flat tax	0%	0%	15% flat tax	19% flat tax	30% flat tax	30% flat tax

Source: Consultant evaluations and computations. Notes: *Only for customers which had not completed their 25 year of life when conluding the contract or contracts concluded until 31 December 2008. CEL – Compte Epargne Logement. PEL – Plan Epargne Logement.

4. Credit risk Management Features

Loan promise: all CSH schemes come with a loan promise, but not strictly legally a loan guarantee since the ultimate decision on underwriting resides with the Bausparkasse or universal bank. Loan denial ratios in the region are very low as CSH lenders push to fully invest their deposits.

Fixed spreads: all CSH schemes in the country cases, including those based on variable rates, come with fixed spreads of loan rates over deposit rates. The spread limits benefit low-income, low education or self-employed borrowers, which often face elevated spreads in housing loan markets.

Unsecured lending: a certain proportion of portfolios is permitted by regulation to be invested in unsecured loans, e.g. 30% in Germany. In CEE, where the regulatory frameworks are weaker, unsecured lending has taken partly extreme forms. In the Czech case, Bausparkassen lending in the 1990s was in almost its totality unsecured. In Slovakia, the interviewed P.S.S. Bausparkasse cites as a business advantage over universal banks its regulatory permission to offer very long-term unsecured loans (20 years and longer).

5. Fiscal Savings Premiums and Deposit Taxation

Premium accrual and disbursement: In the German model, premiums accrue annually on each annual savings cohort and are disbursed at the end of the savings period directly to the saver-borrower. In the Austrian model, implemented e.g. in Slovakia, premiums are actually disbursed annually and used as funding by the Bausparkasse, which permits additional interest rate advantages or higher profits.

Premium levels: the CEE country schemes originated in the high interest phase of the 1990s and early 2000s, and fiscal savings premia accordingly were calibrated at 20-30% initially in order to break even with market deposit rates while Bauspar deposit rates were fixed at 2-3%.[6]

Such premium ratios were clearly not sustainable as rates declined since the mid-2000s. Premiums were reduced first in Slovakia (since 2000) and then Czech republic (2004, 2010). The high Hungarian ratio of 30% was maintained until October 2018 when government announced a decision to abolish the premium altogether. Its future remains unclear. In France, premiums are paid as direct interest rate subsidy

Deposit taxation: The picture on deposit taxation is mixed. France in early 2018 took the step to de-facto claw back the interest subsidy by introducing deposit interest taxation at a similar rate. Also, Germany, the Czech republic and Slovakia tax at flat rates. In Kazakhstan and Hungary, deposit interest remains tax-exempt. Table 2 above gives a current snapshot.

B. Experiences with the Introduction of CSH schemes

The experience of CSH in the comparator countries has reflected prevailing and expected future bank deposit and mortgage market conditions, and depending on its own size to which it has grown also has influenced them. Key drivers have been the general availability of housing loans, the scale of foreign currency lending and funding, often prompted by the entry for foreign banks (that generally promote FX lending) as well as differences in the fiscal approach to household savings promotion and household leverage in finance (financial regulations, housing subsidy policy).

1. Popularity and Impact on the Local Currency Time Deposit Market

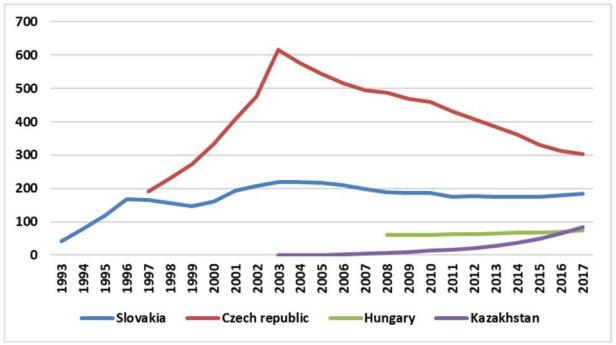
The depth and dynamics of deposit mobilization has varied according to market and policy factors. Considering the data presented in Figure 1, none of the four schemes presented in greater detail have failed

[6] An 'Austrian' and 'German' approach to savings premia can be discerned, with the former intending to break even with market rates while the latter following the economic principle that a below-market interest rate option should come at a price in terms of foregone savings interest.

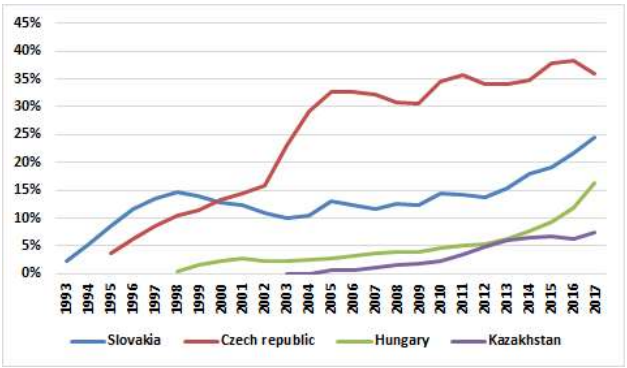
to leave a deep footprint in the time deposit market. The schemes have enjoyed wide popularity, including extreme cases of penetration of the household population, and with one exception are surviving decades later despite partly significantly reduced savings premium levels.[7]

Figure 1: CSH Time Deposit Market Impact

Popularity of the Schemes
Contracts per 1,000 Inhabitants



Contribution to Time Deposit Market
Bauspar Deposits / Time Deposits



Source: national central banks, Bausparkassen, Consultant computations.

A caveat in the interpretation is that there is no case where a CSH scheme was set up initially without a government premium. So, we cannot test for failure or success to start a scheme without such tailwind. What can be assessed by this comparison is the impact of reducing premium levels from higher initial levels on demand for CSH contracts.

Also, it is quite difficult to assess whether CSH had an independent expanding effect on the overall local currency time deposit market. The Consultant believes that the low levels seen in Hungary compared to the Czech republic can be traced back partly to the different success stories of CSH. However, there are certainly other factors driving long-term savings such as differences in economic and inflation dynamics and greater capital imports enabled by foreign currency lending. The experiences in detail:

- Czech Republic: the Bausparkassen law was already introduced in 1992. Key factors in attracting savers to the CSH system in the 1990s were the deep post transition banking crisis combined with the market entry of foreign Bausparkassen with better credit standing than the local universal banks. In addition, a premium level (25%) was chosen that almost entirely closed the gap between Bauspar deposit rates and market rates. At the time, mortgage and housing credit was still expensive and scarcely available, rendering the future loan options valuable. Premium conditions finally permitted several contracts per household, which led to ballooning contract numbers that reached statistically 60% of the population. The schemes' popularity peaked in 2003 before the premium was cut in 2004 to 15%[8]. CSH by 2005 absorbed almost a third of time deposits, which remained at a high level of 30-35% of GDP for almost two decades (1994-2014).
- Slovakia: Initially the Slovak Bausparkassen were as popular as the one in the Czech Republic. This can be attributed to the complete absence of other housing lenders and an extremely high premium

[7] The only case in the CEE CSH universe that will likely be unwound after having started is Romania, where government defaulted on the legally established savings premium promise.

[8] See Dübel (2003) for an analysis of the Czech and Slovak CSH systems and differences in fiscal policies.

level of initially 40%. Quickly, a share of 15% of the time deposit market was reached. However, Slovakia already by 1997 started cutting down premiums aggressively, and by 2004 reached 15% as in the Czech case.[9] The recalibration still enabled savers to match market deposit rates with a CSH contract. Bauspar deposits made up for 15% of the time deposits market segment for the coming one and a half decades, even though the bank housing loan market strongly developed during the period. In recent years the Bausparkassen share in the time deposit market has increased again to 25%, mainly as a result of the zero-interest rate policy for depositors in the Eurozone. This dynamics was realized even as Slovakia cut back the premium to only 5.5%, partly because Bausparkassen due to their strong lending business and absence of any deposit overhang kept their deposit rates at relatively high levels.

- Hungary: compared to the early starter Czech republics, Hungary in the late 1990s featured a 5-10% of GDP lower time deposit to GDP share. Despite a high 30% premium level, the Bauspar system that had started in 1998 did not capture more than 5% of the time deposit market until 2011. The key reason can be seen in the lending environment: when the CSH system started, Hungary's mortgage market was characterized by deeply government subsidized Forint lending, which after 2004 because of its lack of fiscal sustainability was replaced by foreign currency lending, mainly in Swiss Francs. As a result of low, unless risk-adjusted, mortgage rates, Bauspar loan rates did not appear attractive. Also, while the premium ensured that bank deposit rates were broadly matched, there was no bank stability issue in Hungary that pushed depositors to Bausparkassen. Since 2011 the situation has sharply reversed: as a result of the collapse of foreign currency lending, the Bausparkassen Forint loans are very attractive, and the continued high premium combined with falling interest rates after 2015 ensured a boom in deposits.
- Kazakhstan: the situation was analogous to Hungary regarding intense competition from foreign currency and subsidized state loans, resulting in a very low popularity of the CSH schemes until the financial crisis. Since 2010, the Kazakh scheme has been strongly developing and has reached 7% of time deposits by 2017. ZSSB is the largest individual issuer of time deposits.

Finally, the French case is considered. In particular the fixed rate contract PEL has been extremely popular with 95% market share vs. 5% for the CEL. Apart from the state support, the main contributing factor has been the secular interest rate decline trend in Western Europe. Also, French premium conditions were lavish in subsidizing PEL savings without imposing a savings period limit, and obviously savers had no interest in the low interest environment to stop saving.

2. Contribution to the Local Currency Housing Loan Market

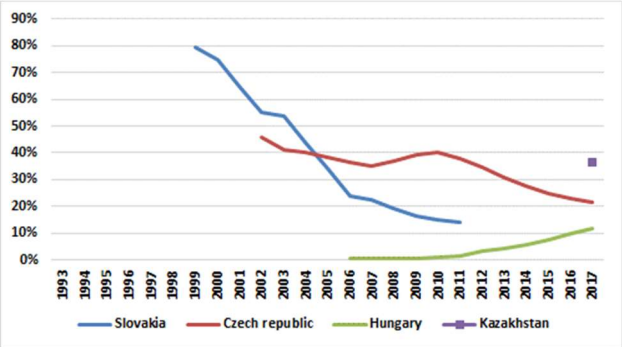
Local currency loans and interest rate risk protection, foreign currency lending substitution

Regarding the housing loan market analysis, we can classify the four CEE cases into two groups, Slovakia and Czech Republic with predominantly local currency markets, and Hungary and Kazakhstan with intensive foreign-local currency market competition. In the former case, CSH, which as a rule provides local currency loans, can be shown to have contributed to the pushback of foreign currencies.

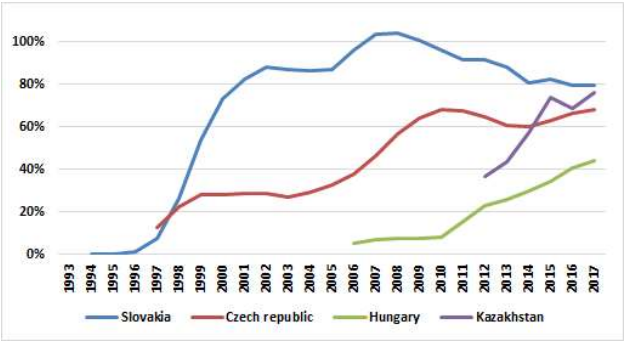
[9] Dübel (2003) showed the correlation between after-premium deposit yields vs. market yields and the growth of deposits for the Czech and Slovak cases.

Figure 2: CSH Housing Loan Market Contribution

Contribution to Housing Loan Market
Bauspar Loans/Housing Loans



Institutional Sustainability
Loan-to-Deposit Ratio (LDR)



Source: national central banks, Bausparkassen, Consultant computations.

- Slovakia: almost the entirety of housing lending in the 1990s was provided by the three Bauspar-kassen, all of which in Slovak Koruna. From the beginning the minimum savings period in case of a housing loan use was only 1.5 years. This loan option was heavily exercised since there were no commercial bank competitors in the housing loan market and the underfunded State Housing Fund focused on financing special groups and multi-family building modernizations.

  The market leader P.S.S. Bausparkasse under Austrian management aggressively pushed lending, esp. regarding modernization loans which were in high demand both in single- and multi-family lending. P.S.S. for example combined saver groups into large contract savings contracts (Grossbaus-parvertraege) while deducting the savings and loan payments from maintenance fees.

  As a result of the approach, the loan-to-deposit ratio of the system already five years after the intro-duction of the system surpassed 80%, and has remained above that level since. The market share of Bausparkassen nevertheless with the advent of commercial bank standard mortgage finance in the early 2000s declined into the 20% range. With the introduction of the Euro in 2009 in the aftermath of the financial crisis, Slovakia experienced a tide of mortgage lending by Euro-area based commer-cial banks and extremely low mortgage rates. This limited the Bausparkassen business from the de-mand side. A stabilizing factor in that environment has been the ability to issue long-term unsecured loans. The Slovak system funds in equal proportion modernization and purchase/new construction loans.

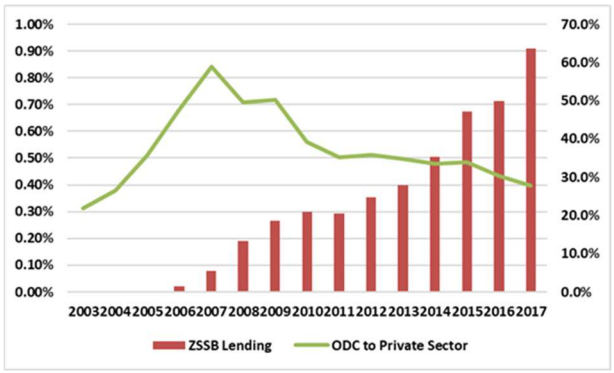
- Czech Republic: in contrast to Slovakia, and even though there was almost no competing mortgage lending in the 1990s, Bausparkassen started lending only slowly. The difference – both countries share the same enabling law of 1992 when Czechoslovakia still existed – can be traced to market en-vironment, consumer preferences, and management approach. In the early presence of universal bank mortgage lending, Czech borrowers focused on using CSH to boost savings returns. Also, since Czech Bausparkassen were subsidiaries of large Czech banks, while the largest Slovak Bausparkasse was independent, management push to expand the frontiers of housing finance e.g. into moderniza-tion loans was less intensive. Problematically, the mother banks internally prohibit until today co-financing with the Bausparkassen for purchase or new construction finance in order to maximize their own balance sheet.

The situation changed gradually with the global financial crisis, during which the mother banks became reluctant to lend and loan demand shifted to Bausparkassen. Nevertheless the deficiencies in integration between mother and subsidiary have kept the loan-to-deposit rate from rising above 65%. Today the Czech Bausparkassen fund modernization loans in the entire country and purchase/new construction loans primarily in rural areas of the Czech republic.

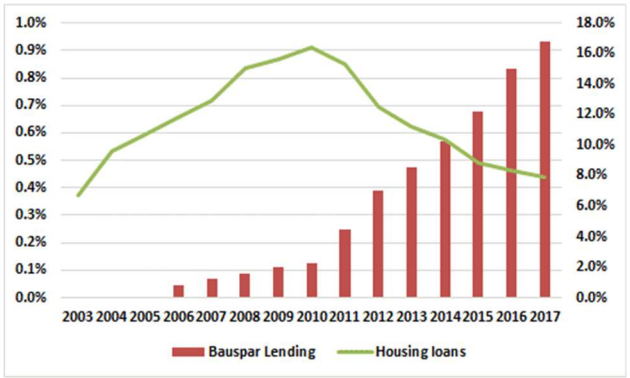
Both Czech Republic and Slovakia almost completely avoided a foreign currency housing finance market, in the latter until Euro accession in 2009. Denominated in Czech and Slovak Koruna, the strong development of the Bauspar system must be seen to have contributed to that result, including through investing excess CSH deposits into local currency interbank loans[10] and mortgage bonds. By 2005 already housing loans in Czech Koruna were available at 5% with rates fixed to 5 years, in Slovakia even at 4.7%, at the time comparable to Germany and the among lowest in Europe.

Figure 3: CSH Schemes Role in the Foreign Currency Lending Crisis

Kazakhstan



Hungary



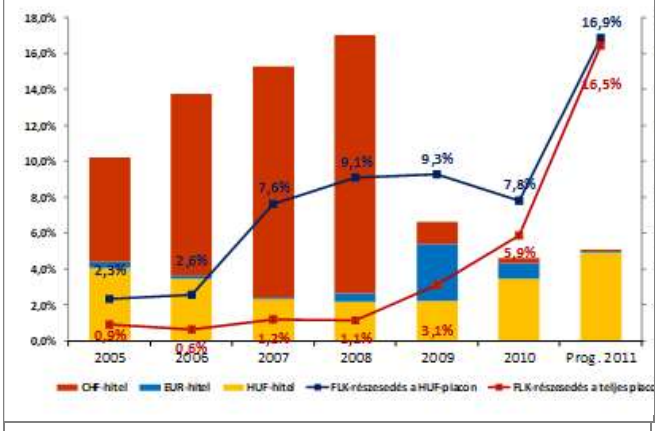
Source: IMF, national central banks, Bausparkassen, Consultant computations. Notes: % of GDP. Kazakhstan ODC – other depository corporation lending to private sector.

The strong FX inflows into the CEE region until 2008 targeted those countries, in the sample Kazakhstan and Hungary, with elevated nominal local currency interest rates, and in which foreign bank entrants were able to undercut local incumbents funded in local currency through unhedged foreign currency lending. Mortgage lending was the sector of choice to gain market share for entrants because affordability considerations in standard mortgage finance demanded low nominal interest rates, in the absence of suitable alternative mortgage products, and local universal banks had to follow. The inflows discouraged both local capital market development and popular local currency savings and lending, despite substantial levels of premiums. When the FX inflows reversed after 2010, local was the only remaining currency for borrowers, credit conditions tightened, and as a result CSH lending in both countries boomed.

[10] Again, weaker regulations must be assumed to have led to strong intra-group lending of Bausparkassen to their mother banks, especially in the Czech case. German regulations limit related company lending to 60% of Bausparkasse capital. The Czech leniency in permitting this practice prompted the negative stance of mother banks to subsidiaries regarding the question of co-financing for new construction and purchase loans.

- Hungary: the CHF lending boom that started in 2004 was aborted by a series of CHF-HUF shocks beginning in 2009 and followed by a major mortgage default crisis. During the foreign currency boom, Bausparkassen lending in LC, as other LC lending, was essentially zero, as was the loan-to-deposit ratio (see Figure 2). Their lending only started to grow by 2010 after the Hungarian government had stopped all new CHF and heavily curtailed new EUR lending, for which a maximum LTV of only 50% was permissible. Hungarian mortgage interest rates, as a result of the FX lending crisis and domestic and international investor mistrust, remained elevated at close to 8% until 2014.

Figure 4: CSH and Local Currency Lending Crisis During the Collapse of the Hungarian FX Lending Market



Source: Ladakasza, Budapest.

The radically changed constellation boosted the loan business and market share of Bausparkassen (see Figure 4) and even prompted the opening of new ones. Loan dynamics will likely weaken going forward as Hungarian LC interest rates by 2018 have abruptly fallen to historic lows. Because of the large initial savings overhang and the high premium level, the loan-to-deposit ratio so far has only recovered into the 40% range.

- Kazakhstan: the Kazakh story mirrors Hungary. Despite the existence of government refinancing in KZT, USD lending took over almost the entire mortgage market during the 2000s. As a result, the public Bausparkasse Zhilstroysberbank (ZSSB) that was lending in KZT took off for a very slow start. A The slow business prompted the Kazakh government to turn ZSSB by 2007 into a conduit for direct government lending programs in KZT. With the crisis, the situation reversed: USD lending became heavily regulated, KZT deposit rates fell and loan rates in KZT remained in the mid-10s percentages. Despite a deposit boom, ZSSB also became more active in marketing loans, which boosted the LDR above 70%. By Dec 2017 ZSSB own loans fund a large 37% of mortgage outstanding in Kazakhstan. The new lending market share after the crisis has peaked at 60%.

It is noteworthy that interim/advance loans have been growing strongly in all country cases also due to the strong decline in mortgage market rates relative to CSH rates. See Figure 5 on the left side, and here developments in the Czech Republic which is characterized by a low interest environment since 2005, as an example. As a result, CSH savings contracts to a large extent fund market-rate loans.

- The situation is most extreme in France, where only 3% of CSH deposits, Epargne Logement (EL), are invested in EL loans, the lowest loan-to-deposit ratio among the case countries. With declining interest rates, the PEL deposits have been used by the universal banks to fund their general mortgage portfolio, and possibly also other long-term loans.[11] As of 2018, there are EUR 300 billion outstanding while France has EUR 989 billion in loans outstanding for housing purchase, so the PEL mathematically funds almost a third of purchase loans. However, since the savings period was not limited and contracts could even be inherited, the mountain of PEL savings has caused significant hidden

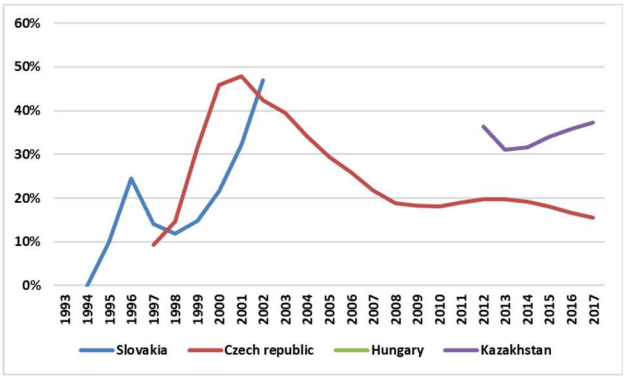
[11] A French housing finance agency head interviewed for this study suggests that the program constraint of investing PEL contracts into housing use is not systematically enforced.

losses for the banking system on a mark-to-market basis. Banks have been unable to terminate the savings contracts, even a joint initiative with the French treasury to stop the inheritance of PEL in 2016 failed.

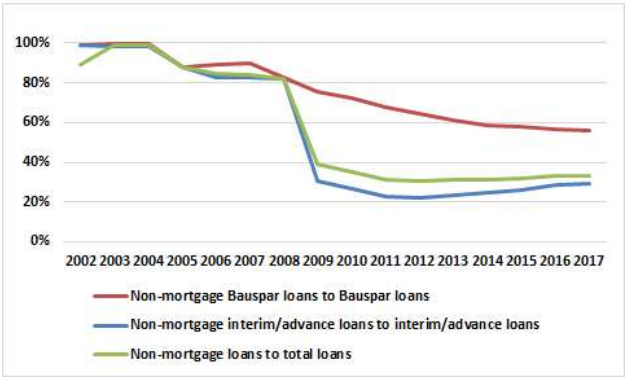
These results are extreme and the situation can be expected to differ in a scenario of high and variable interest rates where the exercise of the loan option is sufficiently valuable.

Figure 5: CSH Schemes Selected Issues

Exercise of Interest Rate Option
Bauspar Loans vs. Total Loans by Bausparkassen



Share of Non-Mortgage Loans
Czech Republic



Source: IMF, National banks, Bausparkassen, Consultant computations.

Credit curve penetration and credit risk management

There is very little empirical evidence regarding the use of the discussed CSH schemes across the credit spectrum. CSH lending with its conceptual proximity to microfinance is self-targeting to smaller investments and thus lower income households. Where the proportionality principle has been pierced, e.g. in Slovakia and Kazakhstan, larger investments were funded and thus greater leakage to higher income groups can be assumed. This holds also true for the initial phase of high subsidization in the Czech Republic and Slovakia in which multi-person households amassed multiple contracts.

- CSH in Slovakia was initially a housing loan monopolist and pushed large individual loan volumes, and so started by skimming the market in terms of selecting good credit risk. Nevertheless, the largest Bausparkasse P.S.S. also aggressively pushed down market and especially into the regions and into the multi-family sector, where low-income owners were beneficiaries. The initial share of purchase and new construction uses combined was 50%.
- In the Czech case, the refusal of universal banks to co-finance implied that the Bausparkassen needed to seek niches in the periphery of the country, where the purchase of old houses sometimes cost EUR 20,000 and less and can be realized with a Bauspar loan. This regional and otherwise modernization loan focus[12] deepened the low-income targeting.
- In Kazakhstan, the government-owned ZSSB became a formal conduit for public housing finance by operating a state housing fund with explicit targeting. Nevertheless, ZSSBs proprietary portfolio credit spectrum due to its large market share and lack of volume limits must have included higher income households.

[12] See Duebel (2003) for data regarding initial loan portfolio compositions.

- Hungarian Ladakasza, the privately-owned market leader, during the boom years after 2011 was able to select good credit risks as all foreign currency lending had collapsed and supply of Forint lending by universal banks was limited.

Figure 6: Fiscal Premium Targeting Policies

EUR	Maximum Eligible annual deposit	Premium	Premium in %
Slovakia	1,206	66	5.5%
Czech Republic	738	74	10.0%
Kazakhstan	1608	322	20.0%
Hungary	770	231	30.0%

Source: VdpB, Zhilstroysberbank, Consultant computations.

Note also, that in all cases CSH premium levels are fixed in absolute volumes to moderate per annum levels. This implies self-targeting of CSH contracts to households with lower incomes, or at least large households. Also, CSH managers that the Consultant interviewed personally over 20 years in all of the above countries appear more knowledgeable in and focused on low-income housing finance than universal bank managers.

In terms of credit cycles, during the foreign currency (Hungary, Kazakhstan) and commercial bank (Czech republic, Slovakia) boom years credit standards weakened in the market and Bausparkassen came under pressure in their core segment. A general tightening of conditions during crises had the reverse effect, with Bausparkassen expanding into prime market segments. Compared to the foreign currency lending crisis countries Hungary and Kazakhstan, the early starters Czech republic and Slovakia with their high CSH market penetration enjoyed far more stable mortgage finance systems with low default rates for decades.

It is doubtful whether the parallel introduction of mortgage insurance e.g. in Romania and Kazakhstan had a negative effect on Bausparen. In the Romanian case, the answer might be mildly in the affirmative since the main public insurance program Prima Casa targeted foreign currency lending with extremely high LTVs (95%) that pulled demand away from local currency funding. At the same time, given the difficulties to implement co-financing with universal banks in the region regarding new construction and purchase loans, first loss mortgage insurance does not seem to directly compete with Bausparen. The Kazakh mortgage insurance scheme after the crisis was repositioned away from high-LTV insurance and was no direct competition either.

Table 3 Selected Transition Countries - Classification by Access to Mortgage Credit Instruments

		Contract savings for housing	
		YES	NO
Mortgage insurance*	NO	Croatia, Hungary, Slovakia, Czech republic	Poland, Bulgaria
	YES	Romania, Kazakhstan, France	Serbia

Source: Dübel (2012) for EBRD, pp30 ff. Notes: *competing high-LTV mortgage insurance.

Doubtlessly, CSH had a positive effect on housing finance equity generation in the jurisdictions that introduced it, as CSH deposits are eventually disbursed as equity. To what extent that equity flew into housing markets is another question; the Slovak system with its high time deposit generation and high loan-to-deposit ratio seems to have been more effective than the Czech with extreme time deposit generation but only low investments in housing loans.

A direct increase of the market penetration esp in high-priced urban markets and in new construction and purchase finance was impeded here and in the CEE region generally by the lack of co-financing with universal banks. The exceptions are the initial phase where households used multiple CSH contracts, and the Bausparkassen in Slovakia and Kazakhstan that became dominant housing lenders by relaxing the

regulatory constraints. Finally, direct LTV limits and thus attempts to increase capital by regulation, imposed on universal banks were truly binding only in foreign currency lending, where Bausparen – apart from the Romanian case – was not relevant. Insofar, CSH scheme's capital generation function can be seen to have had the highest impact in the in rural purchase/new construction markets and modernization loan market segments, with some business-model dependent impact in the purchase and new construction finance market segments.

3. Fiscal Cost Benefit Relation and Sustainability

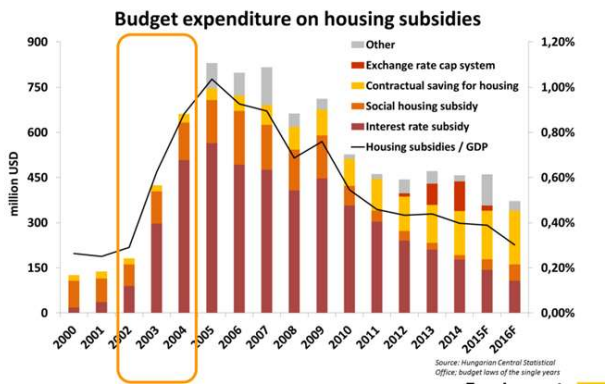
The initially strong support by government of CSH schemes has been the subject of heated policy debate, even though it was later cut down. A key reason is the high political visibility of the premium instrument as a transparent and budgeted subsidy, as opposed to hidden tax subsidies and contingent liabilities of bailouts of high-LTV mortgage lenders, as e.g. in the United States. Another issue has been excess profits of Bausparkassen that initially invest most of their liquidity into securities, interbank loans or housing loans at market rates. Other policy issues have been leakage to non-housing uses and the exact targeting of the premium.

- The Czech Republic excessively inflated both the time deposit base and fiscal cost through Bausparen since the initially chosen 25% premium level was enshrined in the enabling law that took too long to change after market rates had already declined. Control of leakage to non-housing uses by the Bausparkassen was also rather weak, as the low LDR suggests. A balancing view is that much of the excess liquidity was invested in covered bonds[13] and some in interbank lending, which directly and indirectly bolstered local currency mortgage lending. Excess profit was not a big issue since deposit growth fell into a phase when local interest rates had already declined. After Bausparen was given the initial push, public subsidies were redirected into the State Housing Fund programs that supported rental housing and young homeownership. The Czech Republic is one of only a handful of transition countries that has not experienced mortgage market crisis.
- Slovakia cut back the high initial fiscal costs flexibly as the subsidies had been embedded only in the annual budget law. The risk of political stop and go did not materialize as policy makers targeted deposit rates breaking even with the market. An initial problem were excess profits of PSS Bausparkasse, to which the government responded with a prohibition of profit repatriation. Leakage was not an issue, given the very high LDR of the system. As in the Czech Republic, public spending became concentrated in a state housing fund, which focused on programs avoiding subprime mortgage lending. The country also avoided mortgage market crisis.
- Hungary maintained the 30% premium level, which had long been under the radar of fiscal policy makers due to the low demand for new contracts. When the scheme picked up in 2011 and bailed out the mortgage sector after the crisis, political options to cut it back initially were limited. As the share of CSH deposits in the time deposit base rose while market interest rates rapidly declined, the excess subsidization of deposits and increasing profits of the Bausparkassen became a political issue. By October 2018, the government, under pressure also by universal banks with an eye on profitability, has decreed to cancel the premium altogether. The future of the scheme is currently unclear. Hungary experienced significant fiscal risk during the foreign currency lending crisis before costs were almost entirely, and unusually in international comparison, imposed on banks. Already before

[13] For example, the Bausparkassen subsidiary of Komercni Banka, Modra Pyramida, for 2017 reports over 29 billion CZK investments in unlisted mortgage bonds of their mother bank compared to a gross client loan portfolio of 43 billion CZK. Annual reports of Bausparkassen of the 2000s and 1990s likewise point to significant investments in local currency bank bonds.

- Forint interest rate subsidies had dwarfed the costs of the Bauspar premiums, which only increased recently (see *Figure 7*).

Figure 7: Hungarian Housing Subsidy Composition

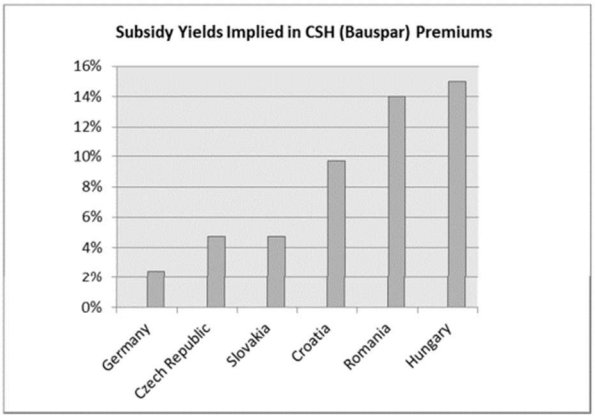


Source: Ladakasza, Budapest.

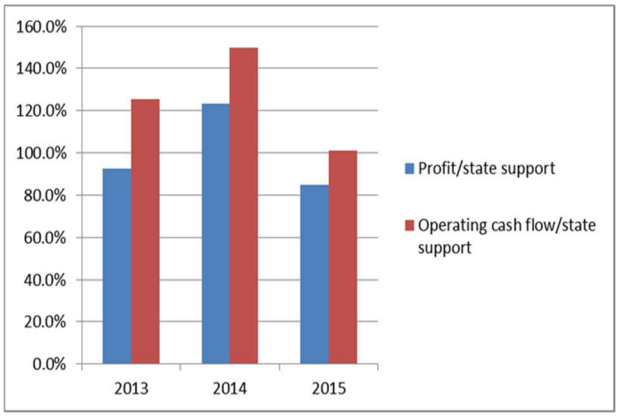
- Kazachstan is the only of the cases with a single publicly owned Bausparkasse. This has enabled the government to claw back any excess profit created through the subsidy. The right-hand side of *Figure 8* compares profit and operating cash flow levels of Zhilstroysberbank with the amount of state premium paid. It demonstrates that the government essentially in the last years has broken even, despite the high 20% premium level. A caveat must be made in that the strong growth of Zhilstroysberbank due to the misaligned premium level – to break even with market deposit rates in Kazakhstan, a level of 5-10% would suffice – has led to a severe distortion of competition in the mortgage market. There is risk of fiscal costs arising from this distortion.

Figure 8: CSH Fiscal Issues

Subsidy Yields Compared



Self-financing of Premium in the Case of a Public Bausparkasse Kazachstan



Source: IMF, national central banks, Bausparkassen, Consultant computations. Notes: % of GDP. Kazakhstan ODC – other depository corporation lending to private sector.

- France: both CEL/PEL volumes and fiscal costs have massively ballooned as a result of the ability of borrowers to endlessly save and even bequeath the contracts while market rates have precipitously fallen. This early policy mistake prompted the French treasury to first in 2016 impose a tying of the premium to taking out a housing loan, and in 2018 to impose deposit taxation, both on new contracts. Also, the interest rate subsidy levels have been cut back. While French banks enjoy the stable long-term nature of the deposits and use them largely to refinance mortgages, neither is leakage to non-housing uses effectively controlled by the government nor does the funding come cheap for the banks giving rise to excess profits.

C. Conclusions from the International Context

1. Long-term Savings Market

- *Savings mobilization:* a CSH scheme can be expected to be established successfully in a transition country context of high and volatile local currency interest rates and incomes. The result is robust over a variety of macro scenarios that characterized the case countries; the speed and depth of penetration differs by the level of capital imports, dollarization and hence the amount of credit rationing. The Czech experience seems to suggest that the entire long-term market can be expanded, or kept at elevated levels, through the schemes at limited risk of cannibalization, in turn reduces the scope for and risks of long-term capital imports.
- *Fiscal savings premium during introduction:* While the alternative of no fiscal savings premium has not been empirically tested, it can be said that such premia will likely be needed to attract initial depositors and gain sufficient scale. The principle should be for after premium Bauspar deposit yields to near a break-even with market deposit rates, initially. A certain level of discount to market rates should be observed, however, in order to compensate for the valuable loan options.

2. Housing Loan Market

- *Contribution to lending market.* The scale of contribution to the housing loan market depends on the development stage of the local currency housing loan market, capital imports/dollarization and credit rationing factors. A high contribution also depends on micro factors such as management approach on deposit collection vs. lending, the latter having been especially proactive in Slovakia, and a regulatory willingness to use the product to expand the credit curve.
- *Co-financing with first mortgage lending:* setting up schemes without a co-financing option in a maturing housing loan market will push Bausparkassen lending to, potentially important, market niches such as renovation loans and purchase and new construction finance in the regions.
- *Dollarization:* CSH schemes can be seen as a safety device against dollarization and related currency and mortgage market crises, both via their local currency time deposit mobilization function and local currency housing loan market contribution. Vice versa, policy makers that accept deeply dollarized housing loan markets and associated lower underwriting standards need to live with the fact that local currency CSH schemes in such environments will develop less dynamically.

3. Policy Environment

- *Fiscal long-term strategy:* Savings premiums can be cut down to sufficiently low levels after ca 5-10 years, without jeopardizing the deposit mobilization or lending function of the system. They should always be reduced in synchronization with declining interest rates. Extreme premium level stop and go should be avoided. This can be achieved by managing premium levels in the annual budget laws while formulating general principles in the enabling CSH or a separate housing savings law.
- *Public ownership:* subsidies can be expected to be clawed back, as e.g. in Kazakhstan, if the CSH institution is owned by the public sector while retaining the benefits in terms of deposit mobilization and housing loan market expansion.
- *Targeting:* While hard data is missing, the schemes can be assumed to benefit lower income household as a result of its many self-targeting features (size of loan, loan use, underserved market niches) and fiscal premium targeting policies (self-targeting via annual premium limits).

They can also be assumed to have contributed to lower credit risk through their deposit, i.e. housing equity, mobilization function.

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