Interest margin analysis 2016

Preserving the interest margin in a negative interest environment
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Drawing on an analysis of 348 Swiss retail banks, this year’s analysis reveals that the average interest margin has decreased from 122 (in 2014) to 117 basis points. That means that the trend persisting since 2007 toward narrowing interest margins has accelerated again slightly compared with 2013 and 2014. Similarly to 2013 and 2014, volume growth in 2015 was insufficient to compensate for the contraction in margins, resulting in a 1.5 percent decrease in average net interest income.

Variances between banks remain high. Again in 2015, 10 percent of banks still have an interest margin above 138 basis points. In other words, these banks still have the same average margin level in 2015 as the average bank had back in 2007. The main, statistically significant determinants of a high margin are a favorable balance sheet structure – low funding through customer deposits and a low share of capital and money market investments help – and positioning in a high-growth mortgage market. Irrelevant factors are bank cluster, local market share or growth in lending. The majority of the deviation (about 60-65 percent) can be explained by influenceable factors, such as in-house asset and liability management (ALM) and pricing discipline.

The negative interest environment entails an array of distinct challenges for banks. To start with, established bank management methods are failing. Conditions in money and capital markets have decoupled from (mortgage) lending markets and investment markets. This is due to the lack of liquidity in the CHF bond market, the resulting importance of deposits for funding the lending business and the dominance of banks in the lending market. Multiple internal interest curves for funding credit exposures and for investments have emerged as a result.

At present, deposit markets are seeing the gradual introduction of negative interest rates in selected customer segments. Given the importance of deposits as a source of funds and the competitive conditions, a potential solution would be to initially allow customers exemption limits before introducing negative interest rates in a second step – once the most important competitors have likewise introduced exemption limits.

Other countries also have a negative interest environment and, in general, it is not clear at present how long it will last. From a current perspective, it is advisable to systematically benefit from tactical measures to widen interest margins (e.g., by adjusting the balance sheet structure, through product and price management in lending and account management, etc.) while preparing for a gradual introduction of negative interest rates for individual customer groups.

**Dr. Roger Stettler**
Senior Manager, Head Strategy Consulting Banking & Capital Markets
1 Development of margins in 2015

The average interest rate of 348 Swiss retail banks stood at 117 basis points, which is a decrease of 5 basis points (bps) compared with 2014. The decrease roughly corresponds to the annual average fall in the period 2007 through 2015, although a slight acceleration is evident compared with the development of 2014 (-3 bps) and 2013 (-2 bps). Differences between banks and between years have also remained steady compared with prior years. That means that the introduction of negative interest rates in early 2015 did not lead to fundamental changes compared with prior years.
Between 2003 and 2007, net interest income grew on average 5 percent per year. Since 2009 (with the exception of 2012), net interest income has shrunk year after year, despite the dynamic lending market (especially the mortgage segment).

That means that volume growth cannot compensate for narrowing margins. Net interest income decreased by a further 1.48 percent again in 2015.

**Effect of regulation: Stricter requirements on liquidity**

One of the factors that has contributed to the decrease in interest margins in recent years is the tightening of liquidity requirements (minimum liquidity coverage ratio – LCR). Under the LCR, banks currently have to hold a liquidity reserve that has to comprise high-quality liquid assets (HQLA) and, due to supply limitations in Swiss francs, largely comprises liquid assets in the form of central bank reserves, thus exacerbating the erosion of interest margins.
2 Differences in interest margins

Large differences are still evident between banks. These differences are surprising, given that providers have very similar business models and that Swiss retail banks are very similarly positioned with respect to the structure of both sides of their balance sheets, their risk policy and their sales structure.

Statistical analysis was used to identify the drivers underlying the interest margin, which can explain between 35 and 40 percent of the differences between banks.

The positive drivers are, among others, a high share of mortgage loans in the asset structure as well as the growth of the local mortgage market. The size of the bank and the proportion of customer deposits in the balance sheet total show a negative influence. Allocation to a bank cluster and the local market share of a bank have no influence.
2 Differences in interest margins

2.1 Positive influence on the interest margin

The positive drivers of interest margins remain the same as in 2014. Banks’ cost levels, a certain asset structure and the rate of growth of the local mortgage market all continue to have a positive impact on the overall margin. Compared with the prior year, banks’ cost structures have a greater influence, while the effect of the asset structure remains unchanged and the impact of the rate of growth of the local mortgage market has weakened.

<table>
<thead>
<tr>
<th>Change compared with 2014</th>
<th>Factor</th>
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</thead>
<tbody>
<tr>
<td><strong>Banks’ cost levels</strong></td>
<td>Banks with higher costs have higher margins. A possible hypothesis is that more cost-intensive banks impose their margins with greater discipline. By the same token, banks with low costs pass on part of their competitive advantage to their customers.</td>
</tr>
<tr>
<td><strong>Structure of assets</strong></td>
<td>The asset structure has a big impact on the interest margin. The greater the share of mortgage loans and the share of amounts due from customers, the greater the interest margin. Holdings of surplus liquidity negatively impact the interest margin.</td>
</tr>
<tr>
<td><strong>Growth rate of local mortgage market</strong></td>
<td>In dynamic, high-growth markets, buoyant demand eases the intensity of competition. Banks can take advantage of this and (still) demand more favorable conditions, thus widening interest margins.</td>
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</table>
2.2 Negative influence on the interest margin

As in the prior year, the results of the statistical analysis confirmed that the relative size of banks, the proportion of customer deposits in the balance sheet total and banks’ geographic location in German-speaking Switzerland have a negative impact on the interest margin. The current study no longer found the growth rate of mortgage loans relative to the local mortgage market to have any statistical significance. Compared with the prior year, the relative size of banks has a greater effect, while the magnitude of the other two drivers has remained unchanged.

<table>
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<th>Change compared with 2014</th>
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**Size of banks**
The negative impact of bank size on margins can stem from the fact that larger banks have to offer their customers better conditions in order to sell products, simply because customers have a closer relationship with small banks and are thus less price sensitive. Alternatively, it may be the case that the lower complexity costs borne by smaller banks allow them to impose more discipline in their sales activities (product offering, specialization) and thereby capture better margins.

**Proportion of customer deposits in balance sheet total**
Customer deposits are a more expensive form of funding than mortgage bonds and other bonds. As a result, a large share of deposits means a lower interest margin. Banks that make greater use of alternative sources of funding such as mortgage and other bonds generate higher margins. But we still see these banks primarily relying on customer deposits for funding.

**Banks’ geographic location**
Retail banks in German-speaking Switzerland statistically have somewhat lower margins than those in the French- and Italian-speaking regions.
2 Differences in interest margins

2.3 What factors have no effect on margins?

Bank clusters and local market share still show no statistically significant influence on the interest margin. A new finding in the present edition of our study, however, is that the growth of mortgage loans relative to the local mortgage market likewise has no effect.

<table>
<thead>
<tr>
<th>Factor</th>
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<tr>
<td><strong>Bank clusters</strong></td>
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<tr>
<td>The statistical analysis does not reveal any correlation between bank clusters (cantonal banks, credit unions or regional banks) and interest margins. Factors such as brand strength and government guarantees also have no statistically significant effect on the interest margin.</td>
</tr>
<tr>
<td><strong>Local market share</strong></td>
</tr>
<tr>
<td>The statistical analysis indicates that local market share has no significant impact on the interest margins of retail banks. Markets remain highly competitive, even where individual players have extremely large market shares, as is the case with cantonal banks in some cantons.</td>
</tr>
<tr>
<td><strong>Growth of mortgage loans compared with local mortgage market</strong></td>
</tr>
<tr>
<td>Above-average growth in mortgage loans compared with the local market is driven by aggressive market conduct. This can manifest itself in a willingness to accept price concessions or risk trade-offs, along with high-quality sales activities. In recent years, banks returning above-market growth had somewhat lower interest margins.</td>
</tr>
</tbody>
</table>
2.4 Other factors

The remaining 60 to 65 percent of the differences in margins can i. a. be explained by the following factors:

**Price structure and product policy**
Research in other countries has shown that substantial increases in margins are possible with clever pricing and product policies. Cross-bank, customer-centric product development enables greater added value compared with conventional product-centric business models. At the same time, banks with dynamic pricing structures can adjust to customer needs with greater agility and better address customers’ willingness to pay.

**Consulting/sales quality**
A high-quality sales team can conclude far more transactions at equivalent prices. In the case of both mortgages and investment products, the quality and competence of advice are key decision criteria, along with price.

**Asset and liability management (ALM)**
On the one hand, margins are determined by the banks’ risk appetite with respect to interest rate changes. Relative to comparable German banks, Swiss retail banks have a lower exposure to interest rate risks on average. On the other hand, smart implementation and operationalization of ALM strategies have a positive impact on margins.

**Credit risk policy**
Swiss retail banks have practically identical risk policies in the mortgage business, the most important asset class. But particularly in the corporates business, it is not uncommon for banks to exhibit marked differences in risk appetite.

2.5 Preliminary conclusion

The analysis implies that banks are well able to actively influence the interest margin. Depending on the extent to which the interest margin has decreased since 2007, banks have multiple levers at their disposal to raise net interest income. Noteworthy examples include measures in the areas of sales and ALM. An optimal approach often encompasses a mix of measures and close collaboration between sales and ALM.
3 Reasons for margin erosion and calculating margins in a negative interest environment

In the negative interest environment, the margin has shifted away from the deposit business and toward the lending business. Since the introduction of negative interest, banks have been confronted with multiple interest rate curves, making bank management more challenging.
3 Reasons for margin erosion and calculating margins in a negative interest environment

3.1 Development of margins and calculation in a negative interest environment

In banking practice, interest margins are broken down into three components: the asset and liability margins as well as the mismatch margin or earnings from term transformation. The asset margin is the difference between interest earned from customers and the cost of corresponding funding at equivalent terms. The liability margin is the difference between income from customer deposits and the corresponding refinancing rate at equivalent terms. The mismatch margin stems from the term differences between assets and liabilities (referred to as “term transformation”), and depends on the exposure to interest risk and the slope of the yield curve. (Schierenbeck, 2014, p. 67 et seq.)

Decreases in the interest margin can be caused by competition (e.g., increased transparency, market entry, etc.) or by the interest environment. Looking at Switzerland, the start of the decline of margins coincides with the start of the low interest period (2007/2008). Since this period, there were only minor changes in market shares (the biggest being a decrease in the share of the mortgage market held by large banks and an increase in the market share held by credit unions). However, this development had already begun a few years earlier. A breakdown of the total margin into the asset margin, the liability margin and earnings from term transformation shows that only the liability margin has decreased. Identical effects are also evident in other countries with a negative interest environment.

Calculation example in a positive interest environment

![Figure 2: Components of interest margin in a positive interest environment (own presentation)](image)

![Figure 3: Development of interest rate margin over time (selection of banks)](image)
In a negative interest environment, however, the analytical value of examining the composition of margins is limited. Today, a calculation of the asset and liability margins and earnings from term transformation at swap rates in the new retail business would lead to an imputed negative liability margin of approximately minus 80 basis points and to a significantly wider asset margin. That begs the question as to why banks accept deposits at such onerous conditions. Systematic application of this approach in a negative interest environment would lead to a large negative liability margin and a much wider asset margin in today’s retail market – without cross-charging of negative interest.

Calculation example in a negative interest environment

<table>
<thead>
<tr>
<th>Fixed-interest period</th>
<th>Capital market rate 7 years</th>
<th>Capital market rate 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer conditions 0.1% (e.g., mortgage)</td>
<td>7-year swap 1.5%</td>
<td>3 years swap 1.5%</td>
</tr>
<tr>
<td>Liability margin (-0.8%)</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Mismatch margin</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Funding rate -0.7% (e.g., 3-year swap)</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Asset margin (1%)</td>
<td>1%</td>
<td>1%</td>
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Since the introduction of negative interest, current banking practice faces the challenge of an emergence of multiple interest rate curves, in addition to the swap curves typically used in the past, all of which have to be factored into the calculation.
3 Reasons for margin erosion and calculating margins in a negative interest environment

### 3.2 SNB’s exemption limit as additional relevant interest rate curve

With the introduction of negative interest, the SNB has additionally introduced an exemption limit for deposits of 20 times the minimum reserve - but no less than 10 million. Zero interest is charged below this exemption limit. Owing to the method used to calculate the exemption limit, retail banks can park substantial funds at zero interest. It wouldn’t make sense for banks to invest liquidity at far worse conditions in the money and capital market as long as their exemption limits are not fully used up - especially given that interest on 10-year mortgage bonds is lower than on highly liquid sight deposits with the SNB (as of 7 September 2016). As a result, retail banks that have not used up their exemption limit will target zero interest. Given that deposits with the currently prevailing replication portfolios have longer fixed-interest terms compared with SNB accounts, retail banks can still earn a low, positive liability margin by contracting receiver swaps.

This analysis does not affect the calculation of the mismatch margin. However, a much narrower asset margin results, because the imputed cost of funding is calculated by reference to zero interest plus the mismatch margin. Figure 5 shows an example.

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**Calculation example in zero interest environment**

<table>
<thead>
<tr>
<th>Asset margin (0.9%)</th>
<th>Mismatch margin (0.4%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver swap 0-3 years (+0.2%)</td>
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</table>

- Customer conditions 1.5% (e.g., mortgage)
- Capital market rate 7 years 7-years swap 0.6%
- Capital market rate 3 years 3-year swap 0.2%
- Funding rate 0%
- Deposits (-0.1%)
- Liability margin (0.1%)
- Customer conditions 0.1% (e.g., savings)

**Figure 5:** Composition of interest margin in a market with exemption limits and zero interest (own presentation)
3.3 Who bears the negative interest?

All risk-free interest rates in money and capital markets are negative. The swap curve is negative well beyond 10 years. So who is benefiting and who is shouldering the negative interest?

Aggregate figures for interest margin and net interest income show that banks are not adversely impacted by the negative interest environment and that the erosion of margins is comparable to that in the low interest environment.

Figure 6 shows that returns on mortgage loans concluded each month with terms of five to seven years are constant. In other words, mortgagors have not been able to benefit from the lower interest rates in the capital market. The gap between money and capital markets has widened significantly.

At the same time, no negative interest rates can be seen for retail deposits – with the exception of one small bank. Although interest on deposits has decreased slightly since 15 January 2015, a comparable decrease would most likely have been imposed anyway if the zero interest environment had continued due to the expiry of older, higher-interest tranches at banks.

That means that conditions in the money and capital markets have decoupled from interest on loans and deposits. This deviating development has not affected mortgage bonds or bonds issued by banks.

Decoupling of the credit market from money and capital market

Figure 6: Development of interest margin of mortgages with a term of 5 to 7 years, of the 12-month LIBOR and of Swiss 5-year debentures since September 2014 (own presentation)
Banks with access to capital markets and sufficient balances of assets suitable for securitization as mortgage bonds can likewise obtain refinancing at capital market interest rates across all terms to maturity. Figure 7 shows that the interest margin on mortgage bonds has remained constant despite the introduction of negative interest rates on 15 January 2015. Negative interest rates have not had an adverse impact on mortgage bonds. Uncovered bonds of cantonal banks also continue to show low premiums on the swap rate.

The conditions of borrowers and investors have thus decoupled from the capital market.

The question is how this new equilibrium has remained stable for over 18 months. To find out, we need to take a closer look at both sides of a bank’s balance sheet.
4 Structure of a retail bank’s balance sheet

Swiss retail banks refinance themselves on the deposit market and invest in loans. In the negative interest environment, this structure allows a decoupling of loans and deposits from the capital market.
4.1 Refinance- and asset structure of Swiss retail banks

Retail banks can invest either in products for which there are transparent, liquid markets (money and capital markets, interbank market), or in less transparent markets (especially loans).

At year-end 2015, 94 percent of the assets on the balance sheets of cantonal banks, credit unions and regional banks were instruments with reduced transparency whose pricing is currently decoupled from the capital market. The most significant item (68 percent of the balance sheet total) is mortgage loans, followed by liquid assets (13 percent; especially deposits with the SNB, which are mostly subject to interest at 0 percent and are thus decoupled from the money market) and amounts due from customers (7 percent). Only about 6 percent of the assets are effectively exposed to money and capital markets (see figure 8).

The liabilities and equity side of the balance sheet is also dominated by line items that are not directly exposed to the market. The most significant item is customer deposits (64 percent). Only about 28 percent of the balance sheet total (bonds, mortgage bonds and obligations on the interbank market) is subject to pricing set in a transparent market (see figure 9).
An analysis of the balance sheet structure reveals that the financing activities of retail banks are almost independent of money and capital markets. Together with equity, their customer deposits largely suffice to fund their lending. In the current interest environment, this funding structure is generally unattractive, given that deposit-based financing is substantially more expensive than using mortgage bonds or other bonds. However, the Swiss capital market is too small to accommodate large-scale issue of mortgage bonds (see figure 10).

Whether it is possible to maintain the status quo will depend on the extent to which the lending market can be kept decoupled from the money and capital markets. This will presumably be difficult in the medium term; current investors in capital markets (e.g., insurers, pension funds) have strong incentives to directly or indirectly invest in the lending market at substantially more attractive conditions on a risk-adjusted basis. Any further fall in the already negative interest rates would reinforce this incentive.

Banks are thus faced with the question of how they can reduce the subsidization of borrowers and deposit holders in a prolonged negative interest environment. One potential solution might be the introduction of negative interest rates.

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**Volume of markets for interest-bearing assets**

![Graph showing volume of markets for interest-bearing assets in CHF as of the end of March 2015](own presentation)

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5 Passing on negative interest rates

Negative interest rates are already being passed on to customers. There is a logic behind their introduction, with institutional customers with an international orientation being burdened first. This differentiated approach reflects differences in demand curves and price sensitivities.
5.1 Introduction of negative interest rates

In Switzerland, negative interest rates are already being passed on, mainly to specific customer groups. In practice, the introduction of negative interest follows a logic and is executed in stages.

First, negative interest rates are introduced for institutional customers with an international orientation, followed by domestic institutional customers, corporates, private banking customers and SMEs. Retail customers are the last to be affected: So far, only one small bank charges (moderate) negative interest rates.

These differences in the treatment of customer groups are clearly attributable to differences in the (anticipated) behavior of customers.

The underlying problem can be analyzed using two different approaches: based on the customer group’s demand curve and from a game theory perspective.
5.2 Demand curves of different customer groups

The volume of deposits sought by a customer group from a specific bank, or indeed from banks in general, depends on the interest rate offered.

That relationship is a function of the supply of substitute goods (e.g., money market funds, capital market investments, early tax payments or cash), products of third-party institutions, and consumption decisions. Assuming constant market conditions, the higher the interest rates offered, the greater demand for deposits.

The effective demand curve is not easy to forecast, and depends on multiple other factors (brand, customer satisfaction, product bundles, etc.).

However, it is reasonable to assume that the curve for retail customers in particular is not a straight line, but instead has several inflection points. Indeed, industry insiders assume that a negative nominal interest rate would lead to significant loss in volume given that customers would exchange deposits for cash, which is perceived as free. That would mean that customers are more price sensitive when faced with negative interest rates on deposits than with positive interest. By the same token - assuming that deposits exhibit “stickiness” - a certain proportion of customers can be expected to remain with the bank even at highly unfavorable conditions.

Figure 11 shows a possible demand curve of private individuals for one bank.

Such a curve would explain why customers are not being charged negative interest rates, since a drop below zero interest could lead to a sharp decrease in the volume of deposits. In view of the difficulties of substituting deposits with money and capital market instruments, this is perfectly rational behavior.

The curve differs in the case of large customers (especially institutional investors). In this case, the money market provides the reference interest rate. In other words, the point of inflection occurs when the interest rate drops below the money market interest rate. That means that it is easier to impose negative interest rates on larger customers, although these would withdraw substantial volumes of funds in the event of a drop below opportunity cost (the money market interest rate).

That explains why negative interest rates are more common for larger customers. Banks can only impose negative interest rates on private customers without risk if, for instance, they have massive surplus liquidity.

Demand curves for different customer segments (examples)

Figure 11: Demand curves in the investment market. The curves presented have been derived based on purely intuitive considerations and only serve to illustrate a point. Their exact progression could be determined using tests, experiments or surveys of the various segments.
5.3 Explanation based on game theory

Banks are in competition. Every bank has two fundamental interests:

- Avoid illiquidity
- Generate profitability/added value for owners

Assuming the liability structure of a Swiss retail bank, the onus is on banks to win and retain customer deposits in order to avoid illiquidity. It is important to note in this context that there is a hierarchy of objectives and that avoiding illiquidity takes precedence over profitability. Illiquid banks risk bankruptcy.

In a competitive market with two banks, there are two choices that each bank can make (in a simplified analysis):

- Charge negative interest
- Do not charge negative interest

Assuming that the volume of deposits is stable, it will be distributed between the two providers. Figure 12 presents the potential outcomes.

Under these conditions, both providers will act rationally and decide not to charge negative interest in order to avoid a loss of deposits and illiquidity.

Nash equilibrium¹ for introduction of negative interest rates

<table>
<thead>
<tr>
<th>Bank A</th>
<th>Bank B</th>
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<tbody>
<tr>
<td>Introduction of negative interest</td>
<td>Bank A: Liquidity secured, high profitability</td>
</tr>
<tr>
<td></td>
<td>Bank B: Liquidity secured, high profitability</td>
</tr>
<tr>
<td>Bank A: Very high liquidity, low profitability</td>
<td>Bank B: Illiquid, no profitability</td>
</tr>
<tr>
<td>Bank A: Illiquid, no profitability (illiquid)</td>
<td>Bank B: Very high liquidity, low profitability</td>
</tr>
</tbody>
</table>

There is one potential solution: A bank can grant its customers an exemption limit for deposits, above which a negative interest rate is charged. That restricts the mobility of customers, while avoiding outflows of liquidity. Once a sufficient number of providers has introduced exemption limits, it is possible to introduce negative interest rates across the portfolio, e.g., by gradually reducing the exemption limit. Switching to competitors would then not help investors as the volume would exceed exemption limits there.

The introduction of such exemption limits can be seen in the market, especially for institutional customers. Such demand-side players typically bank with several institutions.

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¹ A Nash Equilibrium (developed by the mathematician John Nash) is a solution concept of a non-cooperative game involving two players which evolves with non-cooperative behavior.
The half-year reports available as of 11 August 2016 for a selection of regional and cantonal banks as well as for the group of credit unions show slightly decreasing interest margins compared with the first six months of 2015. That means that the structural trend toward slightly decreasing interest margins is holding steady this year.

Figure 13: Interest margins for the first six months of 2015 and 2016 for a selection of regional and cantonal banks as well as the group of credit unions (own presentation, as of 7 September 2016)
Many capital markets have negative interest rates. This is due in particular to the efforts of central banks to bolster economic activity through quantitative easing and/or negative interest rates, either by lowering interest rate levels or by weakening exchange rates. The extent to which this policy has been successful is unclear. However, it has had several implications, including:

- Sovereign bonds in Switzerland across all maturities have negative yields upon maturity
- Sovereign bonds in Japan have positive yields upon maturity only after 15 years
- Sovereign bonds in other 14 European countries have negative yields upon maturity

Forward markets anticipate negative to very negative interest rates in these countries in the foreseeable future.

Sovereign bonds with negative yields

![Sovereign bonds with negative yields by term to maturity](source: Bloomberg, as of 7 September 2016)
A negative interest environment poses high risks for retail banks.

It is essential to prepare for and secure the ability to respond to adverse scenarios, including a further decrease in interest rates.
8 Future development

8.1 Development of interest environment

Negative interest rates can develop along four possible trajectories:

- Prolonged negative interest phase
- Discontinuance of negative interest
- Lower negative interest rates
- More severe implementation of negative interest rates

All four variants appear plausible in future and have different implications for banks. It is difficult to designate probabilities, but Swiss capital markets currently anticipate that negative interest rates will persist or be implemented more severely.

The different scenarios would have the following implications

Prolonged negative interest phase

Negative interest rates would likely increase competitive pressure in the lending business, as competitors would increasingly consider an entry into the mortgage market. This would mainly concern insurers, pension funds and private banks – i.e., providers with a competitive financial structure that allows them a favorable offering policy.

The question arises as to the extent to which banks should attempt to pass on costs resulting from the negative interest environment. We are starting to see initial efforts in the private customer business. It remains to be seen whether these plans will be implemented. Alternatively, costs could be passed on by changing the structure of bank charges, as these constitute an independent variable (i.e., a source of income without an interest component). An ALM optimization could also deliver additional benefits. However, systematically reducing the practice of cross-subsidization is considered far more important. The funding mix today is highly cost-intensive. More suitable funding could be obtained by expanding the volume of mortgage lending, supported by a reduction of liquidity on the assets side of the balance sheet and a decrease in deposits combined with increased issue activity on the liabilities and equity side. Such an approach would also enable a reduction of the costs caused by the statutory minimum liquidity reserve.

Lower negative interest rates

Negative interest rates could be lowered further. It is conceivable that such a step could be combined with efforts to rationalize cash supplies. That would barely have a direct impact on retail banks, since they have a low share of line items on either side of the balance sheet that are directly exposed to the money and capital markets. However, other parties (e.g., pension funds, private banks and institutional investors) would be directly affected. As a result, these providers would have a greater incentive to enter the lending business.

More severe implementation of negative interest rates

The SNB could intensify the negative interest environment by lowering the exemption limit. Lowering or completely removing the exemption limit on sight deposits would affect retail banks in particular. At present, their sight deposits are below the exemption limit, but only barely for the most part. Such a development would massively accelerate the trend toward passing on negative interest rates.

Discontinuance of negative interest

A significant improvement in the economy and/or interest rate hikes in the Eurozone, for instance, could lead to the discontinuation of negative interest rates. Alternatively, economic conditions in Switzerland could deteriorate substantially.

With respect to the interest rate margin, Swiss banks would thus get some relief, assuming that this is not quickly followed by an interest rate hike. However, if the change were to be accompanied by a substantial deterioration of the economy, an increase in non-performing loans would be expected.
Swiss retail banks are confronted with unique challenges under the current, unparalleled interest environment. We see a number of possible avenues of action that could increase the resilience of banks. The aim of any such choice should be to remain agile in the event of unanticipated developments while securing a robust economic footing.

8.2 Opportunities for action for retail banks

Building up agility

The introduction of negative interest rates took many by surprise and it is still not possible to conclusively forecast how developments will pan out. In such an environment, it pays to have as many options open as possible, enabling a flexible response to any eventuality. For instance, the ability to handle negative interest rates in the retail segment through deposits and loans alike can be of tremendous value. We also believe that it is a good idea to rehearse scenarios for different eventualities (e.g., the discontinuation of the exemption limit by the SNB). This enables faster and more effective response in the event of occurrence.

Adjusting risk measurement systems

Individual risk measurement tools (e.g., replication portfolios) are subject to different mechanisms in a low or negative interest environment. Some banks continue to rely on tools intended for a completely different interest environment. That creates substantial model risk. For instance, a replication portfolio that falls too short is not necessarily risk averse, but instead leads to increased volatility of returns combined with a lower margin.

Tactical optimization of interest margin

Given the high deviation between banks, the current system affords substantial leeway to act. For instance, price management and the ALM strategy should be regularly checked for potential extra revenue.

Gradual introduction of negative interest

The evidence so far suggests that the best way to systematically introduce negative interest rates is to introduce exemption limits. As a result, customers have no incentive to keep large sums of money at their bank. If the environment gets tougher, it is possible to respond by lowering exemption limits in a second step. This is easier in markets where exemption limits are already common.

Earning alternative revenue with account products

It is possible to combine account products with other fee-based products (e.g., card products or value-added services). Fees can also be charged on the use of account products. That can serve to compensate for dwindling revenue streams in the retail business.

Management of balance sheet structure

At present, mortgage bonds and banks’ own bonds are by far the cheapest sources of funding. Even if the capital market is limited, all banks should attempt to draw from it the largest possible volume of capital. At the same time, it is important that liquidity is kept as low as possible – without compromising compliance with CLR requirements of course.
The negative interest environment places banks before substantial challenges and creates a series of new risks. Switzerland is only one of 15 European countries with negative interest rates. A mix of measures could help mitigate the repercussions. Even in a negative interest environment, it is still possible to operate a robust business model. But this requires the combined efforts of ALM, risk management and sales.
10 Outlook

The introduction of negative interest rates has effectively led to the creation of multiple interest curves in addition to the original swap curve. Consequently, banks have to consider the nature of demand of their customer groups for deposits. A game theory analysis of the introduction of negative interest rates shows that a rational bank would avoid charging negative interest rates in order to pursue liquidity as its primary objective. By introducing exemption limits it is possible to avoid a loss of customer funds, a precondition for the introduction of negative interest rates. Starting with international institutional customers, the eventual expansion of negative interest rates to include other customer groups cannot be ruled out.
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