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Strategies for trading in money markets

1. Prologue

The financial industry accounts for a significant share of economic output, both in Switzerland and globally. The Federal Department of Foreign Affairs (2021) notes that the financial sector in Switzerland generates almost 10% of GDP, supplying over 200,000 full-time jobs in the country. A glance at the balance sheet items “Due from banks” and “Due to banks” gives a quantitative idea of the extent of money market trading among banks.

As shown Hertrich (2018), money market trading can be defined as trading between credit institutions and non-banks that trade their own liquidity or central bank balances. As part of my bachelor’s thesis, three experts were interviewed about money market trading and various money market trading strategies were designed based on these interviews. Both the literature analysis and the expert interviews are the subject of this scientific abstract.

2. Expert interviews to conceptualize suitable strategies

The interviewees are experienced specialists and managers from Swiss banks, all of whom have an operational and/or strategic connection to money market trading as part of their professional career. The interviews were conducted between September and October 2023.

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Table 1
Results of the expert interviews

Questions	Rolf Hartmann	Franzpeter Strassmann	Expert 3 ¹
How important is money market trading for banks?	Money trading is very important in Switzerland, as confidence in the interbank market is high. Money trading plays a lesser role in the USA	Treasury perspective: Trading of short-term, highly liquid assets with the aim of managing liquidity and risk	Money market trading is the lifeline of a bank. Money trading primarily in its function as a short-term liquidity management instrument
What interdependencies exist with other areas of the bank (Treasury, Investment Banking, Corporate Banking)?	Closely related to corporate customer business, as money market products are easy for companies to process and easily accessible	The premise is that money market trading serves to manage liquidity. There are links to various business areas that generate relevant cash flows	Money market trading is influenced by sales units with high customer cash flows and is closely related to them. Treasury and the MB and BoD set strategic guidelines and limits for money market trading
In your opinion, what are the factors for successful money trading?	Risk management and limit systems, but also middle and back office are crucial for successful money trading Constant rating monitoring and anticipation of market developments are also important	Successful money trading is characterized by efficient funding. Funds management in the right currencies, maturities, etc. Furthermore, all regulatory and internal requirements must be met	Personal relationships and trust are essential. Accurate and conscientious traders and clerks. Downstream processes in the back office and accounting are also crucial (correct billing; daily interest calculations/ interest balances; interest rates, etc.)

¹ Anonymized

Table 1 cont.

<p>What strategies are there for money trading?</p>	<p>Favourable fundraising on the liabilities side and investment in loans or financial assets. Another money trading strategy is to use borrowing and lending to manage regulatory ratios such as the LCR or the CET1 ratio</p>	<p>Positioning according to interest rate expectations: Long-term loans when interest rates fall. Exploit arbitrage effects in the event of a steep yield curve. Borrowing liabilities and investing in assets with the same maturity to exploit the interest rate differential</p>	<p>Utilization of the spread for asset/liability transactions. Foreign currencies can also be integrated into these strategies. However, it should be noted that exploiting high spreads in illiquid currency markets is also associated with risks</p>
<p>Which money trading strategies do the different banks use and why?</p>	<p>Depending on the geographical focus and customer relationships of the banks, various currencies and instruments are offered and traded in money market trading</p>	<p>Since the financial crisis of 2007, banks have become more restrictive, anticipation of funding. The focus is on security and balance sheet management. Control of regulatory key figures (e.g., CET1)</p>	<p>Due to their high credit rating, state-guaranteed canonical banks can obtain liquidity at favourable terms, which in turn can be invested in the market. Otherwise, no general statements can be made</p>
<p>Which regulatory key figures play a role in money market trading?</p>	<p>LCR, NSFR, MIRE, CET1-ratio</p>	<p>LCR, Liquidity Buffer, Large Exposure, CET1-ratio</p>	<p>LCR as a key indicator. Capital ratios also very relevant</p>
<p>How should the required human capital be structured?</p>	<p>Money traders should have integrity, commitment, a team-oriented and extroverted character.</p>	<p>Employees should have expertise in trading, risk, accounting and controlling. Managers should also have</p>	<p>Requirements Treasury: Networked, model-based and strategic thinking. Money trading requirements: Trustworthy,</p>

Table 1 cont.

Questions	Rolf Hartmann	Franzpeter Strassmann	Expert 3
	Knowledge of economics and business administration is a prerequisite	an academic background. Open-mindedness and integrity are required	outgoing, and acquisitive personalities
How should the corresponding infrastructure be designed?	Well-functioning core banking system as well as back and middle office tools. Operational processing via trading and information systems such as Bloomberg, Reuters and Instimatch	Trading and risk management systems are indispensable. Financial information and communication systems such as Reuters also represent an important infrastructure	Money market trading and treasury are still heavily Excel-based. FX and other trading systems are also important.
How important is it to maintain relationships with counterparties in money market trading?	Personal and professional exchange as well as participation in events and relationship management in general are essential	Personal development and maintaining relationships are essential	Relationship management and trust are very important
What significance does a bank's rating have in the money market?	This is very important, as the rating has a direct influence on the margin in money market trading and provides an orientation for the risk of a transaction	Essential for large and internationally oriented players to obtain corresponding limits from other players	Ratings correlate with a bank's refinancing costs. The better the rating, the more favourable the refinancing options
What role do brokers play in money trading?	Brokers serve as a kind of door opener for access to new customers and other banks. Brokers are important	Digitalization increases transparency and efficiency, which is why the importance of voice brokers tends to decrease.	Not specified

Table 1 cont.

	information brokers and orientation aids in a non-standardized and sometimes information-inefficient market	Comprehensive platform solutions will be in greater demand in the future, especially if an interface for banking systems can be built for them	
How can derivatives be used in money trading?	Reputational and credit risk are the most important risks in money market trading. Operational risks are also highly significant.	Direct risks are relevant due to external dependency. Correlation between the direct risks. (Reputation ↔ liquidity ↔ credit).	Reputational risk in the case of business relationships with foreign banks and other players. Operational risk if the LCR falls below
	Legal risks are to be classified as lower	Operational risks are also relevant, which can be mitigated by a functioning BCM	the regulatory limit due to inadequate management or coordination or a lack of understanding of the customer's business processes and business model. Credit risk for lending transactions. Repo transactions instead of unsecured money market transactions mitigate this risk
How can derivatives be used in money trading?	Interest rate derivatives are important for risk management in money market trading. Foreign exchange swaps are important money trading instruments due to the large number of foreign deposits at Swiss banks	Use of derivatives in connection with balance sheet hedging. Rather restrictive use for money trading activities	Currency and interest rate swaps as hedging instruments. Other derivatives, e.g. futures, are sometimes very illiquid

Table 1 cont.

Questions	Rolf Hartmann	Franzpeter Strassmann	Expert 3
How is it possible, despite the efficiency of the foreign exchange markets, that borrowing in USD or EUR can be more attractive than in CHF if information-efficient markets make arbitrage profits impossible?	Different risk assessments by the individual players lead to subjective price expectations in different currencies. As money trading is an over-the-counter transaction, arbitrage opportunities in different currencies are possible due to information inefficiencies	Arbitrage possible due to differing expectations and trading positions of the individual agents. Asymmetries in USD/CHF or EUR/CHF exchange rates due to the „safe haven“ function of the CHF	The more attractive swap rates can be partly explained by a liquidity risk. For example, it is possible that borrowed currencies cannot be repurchased on the value date: This can cause a player to default despite being solvent. This risk must be adjusted for.

3. Interpretation of the results

Depending on the definition that the experts established at the beginning, different functionalities are assigned to money market trading and consequently different priorities are set. Based on this, the experts consider revenue generation to be either the main or secondary objective of money market trading. It should also be emphasized that there is no uniform definition of the requirements for the job profile of a money trader. According to one expert, for example, accounting and controlling skills are a primary requirement alongside trading expertise, whereas the other expert views economic and business knowledge such as the reliable application of discounting models and basic knowledge of financial modelling as important skills. There seems to be more of a consensus on the character traits required of a trader, as all experts consider integrity and extraversion to be indispensable personality traits. Furthermore, the experts agree in the regulatory area, as the CET1 ratio and the various liquidity ratios were classified by everyone as very relevant. According to experts, the LCR is particularly important. This is a regulatory indicator developed by the Basel Committee on Banking Supervision (n.d.) to ensure that a bank's short-term resilience to liquidity risks is high enough. This also applies to maintaining relationships with other stakeholders, the importance of which is also rated as high by the experts.

In summary, it can be said that, despite different perspectives, money market trading is seen by all experts as something very complex, has many interdependencies with other business areas, and is highly relevant in the banking sector.

4. Conception of the strategies

In the following, suitable money trading strategies are developed based on the expert interviews. These are all formally structured in the same way, in that the initial situation is first explained and then a corresponding strategy is designed. A brief list of the risks and an overview of the possible applications round off the strategy concepts.

4.1. FX-arbitrage strategy

Initial situation and assumptions

According to the findings from the expert interviews, relationship management in money market trading is of great importance. In addition to other banks, this network of relationships also includes other players in money market trading, such as institutional investors or multinational companies. The group of institutional clients defies a clear and generally recognized definition, as different criteria are used for classification depending on the perspective. In practice, however, non-banks only have a professional treasury department depending on the scale of the institution, which creates an information asymmetry for smaller players compared to that of banks.

As small and medium-sized companies or institutions are confronted with payment flows in EUR, USD, or other currencies, depending on their business focus, there are interesting arbitrage opportunities for banks. As published in Horsch & Kruse (2020), the term swap refers to a financial contract that provides for an exchange agreement between two parties in which future cash flows such as currency or interest payments are exchanged on predetermined terms. For example, a Swiss mechanical engineering company may obtain its receivables from an order in USD. As a rule, the company will sell the USD for CHF. However, if there is also an outgoing payment in USD in the foreseeable future (e.g., to a supplier), it makes sense to invest the USD in a fixed-term deposit for this period. The company's motives may be to minimize costs by avoiding the payment of the spread for buying and selling USD, and the company does not have to hedge against any currency rise because of a "natural hedge".

Strategy

Currency swaps are an important instrument of money trading in which a fixed deposit is taken out in one currency for a certain period and the resulting incoming payments are exchanged for another, e.g., the local currency.

If information asymmetry is also assumed, banks can exploit their knowledge advantage and obtain favourable liquidity in another currency by offering the borrower an interest rate which (converted into the local currency by the currency swap) would be lower than the interest rate for the same transaction in the local currency.

Risks

As explained in the expert interview, risk-free profits are generally not possible. The main risk for the banks is that the counterparty with which the currency swap was concluded may default on payment. In this case, it depends on the legal structure of the individual contractual relationships. Often there are exclusions of liability in the general terms and conditions if the correspondent banks do not deliver the foreign currencies on time.

Regardless of who is ultimately liable for the delay, the receiving bank will have to explain the situation to its customer, which can ultimately cause lasting damage to its credibility and reputation and jeopardize the overall relationship.

Possible applications

In principle, borrowing in foreign currencies, combined with a corresponding currency swap, is suitable for all banks. The motive is primarily to obtain favourable liquidity, whereby the liquidity can be used either for refinancing the credit and mortgage business or for lending to other banks or non-banks. However, it should be noted that risk-free (or low risk) arbitrage transactions are mainly made possible by the information asymmetry described above. If this information asymmetry no longer exists, or only to a limited extent, borrowing in foreign currencies will no longer be much more attractive than in the local currency. The borrowers can then use financial information systems to calculate and compare which conditions are customary on the market and adjust their interest rate expectations accordingly.

4.2. Asset/liability strategy for professional funds**Initial situation and assumptions**

Risk is a core component of the banking industry. In an economy, banks perform the function of capital transformation, which in turn can be divided into

lot size, maturity, and risk transformation. A money market trading strategy can be derived from risk transformation in that banks attempt to generate a margin between professional deposits and assets. In this context, professional money refers to money that is not transferred to the liabilities side via a bank's retail business. This exclusive definition is chosen because non-professional deposits are not classified as money market transactions.

Strategy

As mentioned at the beginning, the spread between lending and borrowing is the banks' gross income. To generate the highest possible interest rate difference between borrowing and lending, banks can either try to refinance themselves as cheaply as possible or obtain a high interest rate for lending. In practice, it will be much more difficult to achieve favourable refinancing, as this correlates with the rating, the refinancing network of the banks and other factors. Nevertheless, banks should strive to obtain the most favourable refinancing possible, as there is no credit risk on the liabilities side – in contrast to the assets side. If a bank tries to generate a reasonable spread despite high refinancing costs, it will only succeed by charging a higher interest rate on the assets side. Lending money is always associated with risk. Therefore, an excessively high, non-market interest rate offer for a money market loan should always be viewed critically, as this can be seen as an early indicator of refinancing or liquidity problems on the other side. For this reason, money market loans that are not secured by securities (e.g., repo transactions) should only be concluded with first-class and trustworthy banks and non-banks.

Risks

The greatest risk of this strategy is the credit risk, as the bank must always be prepared for a default by the counterpart to which it has lent money. If asset transactions are secured by securities, the credit risk is minimized as the collateral received by the lending party serves as security in the event of default.

Furthermore, the reputational risk must also be considered, as loans to other players, which are themselves subject to public criticism, could be viewed critically by stakeholders. Even if Swiss bank-client confidentiality is intended to ensure that these transactions are not made public, it can never be fully guaranteed that this will be the case in practice. This is particularly true if a party is a non-bank, as it is not subject to bank-client confidentiality and is therefore not bound by any confidentiality obligations.

Possible applications

The asset/liability strategy is generally suitable for all banks that have an appropriate risk tolerance and qualified trading and risk management staff. In this

context, the risk department of a bank should constantly monitor the bank's asset positions and set appropriate limits. It should also be noted that asset transactions must be backed by own funds. This should always be considered when calculating margins. If a bank has a low equity ratio, the liquidity costs should also be considered, as it may not be possible to issue corporate loans or mortgages with a higher margin due to the use of one's own funds in connection with money trading activities. Money market transactions also lead to an extension of the balance sheet, which should also be considered about regulatory requirements and shareholder interests.

4.3. Scaling strategy

Initial situation and assumptions

Banks have many customer relationships with other banks and non-banks. In addition to relationships with large players, which in turn also have large networks, this network also includes relationships with smaller or medium-sized banks and non-banks.

Strategy

Banks have the option of borrowing money from smaller players such as pension funds, regional banks or non-listed companies and placing this liquidity in a bundle with another player. The money market traders will try to progressively scale the interest rates they offer according to the amounts involved.

This strategy represents a further development of the concept mentioned in section 4.2. In contrast to the asset/liability strategy, however, the aim is to use the bank's wholesale position to realize scaling effects on the market. The bank's focus with this strategy is therefore less on taking risks. The primary aim of this strategy is to profitably exploit the difference between interest rates for smaller and larger amounts.

For this reason, an attempt can also be made to raise liquidity from smaller players and invest it (with matching maturities) in secure assets such as repo transactions or SNB Bills. The Six Repo AG (2023) describes a repo transaction as a securities-backed financial transaction in which there is a lender and a borrower, and which consists of two transactions. In the first transaction, the borrower sells a basket of securities (also known as collateral) to the lender and in return receives the market value of the collateral in the form of liquidity. At the same time, the repurchase of this collateral is agreed in the same type, quantity, and quality, so that repo transactions can be described as collateralized money market transactions between two professional players.

Risks

In the context of this strategy, a distinction must be made between risks on the assets and liabilities side. The risks on the assets side are already described in detail in section 4.2, which is why we will not list them further. However, it should be noted that the risks can be reduced in the case of value creation via scaling effects by investing the money raised in secure assets and still achieving a worthwhile return via the scaling effect.

The risks on the liabilities side lie primarily in market transparency. Wherever possible, banks should try to process transactions by contacting the respective parties directly, as platforms and intermediaries could create unwanted transparency (from the bank's point of view), which in turn would have a negative impact on margins.

The following example illustrates this from the perspective of Bank A. Bank A borrows CHF 5 million each from company B and pension fund C and lends CHF 10 million to bank B. In this example, it is assumed that both banks have the same risk profile/rating and a comparable market position. The difference between the lending and deposit rates from Bank A's perspective is 40 bps. If Company B and Pension Fund C now had the information that Bank A generates a margin of 40 bps by pooling liquidity and placing it further, Company B and Pension Fund C could demand higher interest rates from Bank A or contact Bank B directly.

Finally, it should be noted that further risks may arise if the maturity match between assets and liabilities is not maintained.

Possible applications

All banks that are of a certain size and have a corresponding network can use this strategy. This strategy is more suitable for larger banks with correspondingly higher balance sheets and larger networks than for smaller and less well-connected banks.

4.4. CET1 opportunity cost strategy

Initial situation and assumptions

In principle, banks have the task of generating an annual surplus and thus promoting the welfare of their shareholders, cooperative members, or other owners. This also includes establishing an appropriate ratio between equity and debt capital. An equity ratio that is too high could lead to the market interpreting this as a negative signal, particularly in the case of listed companies, which in turn

would have a negative impact on the share price. CET1 ratios are an extremely relevant key figure in terms of corporate policy, the range of which is determined in practice by the Board of Directors in cooperation with the Executive Board. According to Art. 21 para. 1 ERV of the Schweizerische Eidgenossenschaft (2012), common equity tier 1 capital (also referred to as common equity tier 1 capital or CET1) includes the paid-in share capital, the disclosed and general reserves for banking risks and the profit carried forward. Furthermore, the profit for the current financial year less an approximate profit distribution to the equity providers is added. Banks will manage these ratios primarily through the lending and mortgage business as well as the trading business. As corporate loans and mortgages cannot be increased or reduced on a short-term basis, these types of asset transactions are not suitable for fine-tuning the CET1 ratio, or only to a limited extent.

Example: A listed bank is given the strategic target by the Board of Directors of achieving a CET1 ratio of between 15% and 18%. Shortly before the end of the year, the bank's finance department reports that the CET1 ratio currently stands at 20%.

Strategy

If the CET1 ratio is too high, the company management can instruct the relevant trading department to actively lend on the money market. The bank's money traders will use their network or brokers to ask other players at what interest rate they would be prepared to borrow money. The bank's traders will then risk-adjust the various offers and conclude corresponding transactions. The strategy can be summarized by the fact that the traders help to steer the relevant key figure back into the desired range within the shortest possible time.

Risks

In addition to the existing credit risk which unsecured loans entail, a possible liquidity risk must also be mentioned, as the lending transactions must first be refinanced before a corresponding loan can be made. The Austrian Financial Market Authority (n.d.) describes Liquidity risk as the risk that banks will not be able to meet their payment obligations or not at market conditions. A distinction is made between various liquidity risks, such as structural liquidity risk, maturity risk or call risk. Money trading can both mitigate and increase this risk, as large amounts are borrowed and lent in money trading. Internal and external requirements counteract the liquidity risk in the form of an early warning system. The management of the CET ratio must therefore never result in the bank falling below liquidity ratios such as the LCR to make a correction to the CET1 ratio.

Possible applications

In principle, this strategy can be used by all banks that have qualified staff in their trading departments. It is also suitable for banks that reach the lower limit of the bandwidth at short notice and need to increase their CET1 ratio within a very short space of time. To this end, traders can terminate existing call money or liquidate sight deposits at other banks and move them to their current account at the National Bank, which has a risk weighting of 0%.

However, it should be noted that not all banks are interested in optimizing their CET1 ratio. One expert stated that his employer, an internationally active private bank, traditionally reports a high CET1 ratio to signal security to existing and potential customers.

4.5. Interest rate expectation and maturity strategy

Initial situation and assumptions

If a bank's decision-makers expect a change in the key interest rate to be announced at the next National Bank meeting, they can try to manage fixed-term deposits and loans in line with their interest rate expectations.

Strategy

The strategies are different if an interest rate increase or decrease is expected. If the decision-makers expect interest rates to fall, they may try to make longer-term loans and refinance them in the short term. The reverse is true if the opposite is expected.

Risks

Decision-makers can never predict the National Bank's decisions with certainty. This gives rise to interest rate risks with the above-mentioned strategy, which can have a negative impact on the bank's earnings if expectations are incorrect. If a bank wishes to limit its risks, it has the option of hedging or limiting interest rate risks by means of interest rate derivatives. Conditional and unconditional interest rate derivatives are available for this purpose. One instrument would be the interest rate swap. Schäfer (2018) defines an interest rate swap as an instrument which has always two sides, for example party A receives a fixed interest rate (e.g. the 5-year CHF SARON swap) as an interest payment from party B and pays a variable interest rate (e.g. the SARON Overnight Compounded) to party B in return. From Party A's perspective, this swap is referred to as a receiver swap. For party B, the interest payments are exactly the opposite, whereby party B recognizes a payer swap.

Possible applications

As this strategy requires interest rate opinions, it is only suitable for banks that have the relevant economic expertise. Risk systems for limiting interest rate risks and qualified traders for trading interest rate derivatives are also required.

5. Outlook and recommendation

Money market trading is undoubtedly experiencing a renaissance in times dominated by higher interest rates and margins. At the same time, bank failures and ever-increasing regulatory requirements mean that money market trading is also being increasingly regulated and the primary trading intention of generating income is being pushed into the background.

In conclusion, it can be recommended to decision-makers in the trading departments of banks that the opportunities offered by money market trading are very diverse, both in terms of earnings and management, and should always be considered in trading and treasury strategies. It is also advisable to train and educate traders about regulatory and accounting aspects. In addition, retailers and relationship managers should be given the necessary freedom and resources to maintain and expand relationships with other players. In the future, these will be indispensable prerequisites and success factors for a functioning and profitable money market which should ultimately also be reflected in the overall results of a bank.

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Summary

Money market trading is a part of Investment Banking and highly business relevant to the Swiss Banking sector. It is astonishing, therefore, that there are very few scientific studies or papers available on this subject. The goal of this article is to clarify and analyse the relevance, chances, and risks of money market trading within the Swiss banking sector and provides comprehensive information not only to professionals such as employees of banks but also for other clients interested in this specific topic. Various aspects of the money market were analysed, taking in a mix of interviews with experienced banking professionals as well as literary analysis. These aspects include products of and participants in the money market and combine it with the politics of the Swiss National Bank over the last few years. Furthermore, the implications of Basel III on cash trading were explored and explained by way of an example. From the interviews with banking experts, some basic requirements for the job profile of money market traders were defined, 5 strategies for money trading designed and related risks identified.

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