Pricing in retail banking

Scope for boosting customer satisfaction & profitability

Pricing is currently more relevant for retail banks than ever before: prices play a central role for customer satisfaction and profitability. Especially in the current situation, marked by cost pressure and changing customer expectations, pricing is thus of particular importance. It presents banks with challenges – but at the same time opportunities.

Trend towards transparency making its mark: technology and regulatory efforts are key factors. Technology reduces information costs and changes comparison and buying behaviour of customers while regulation defines the environment for companies' pricing. Regulation can be a driver of transparency and market efficiency. At the same time, it needs to take the specifics of financial products and client preferences sufficiently into account to prevent market distortions and inefficiencies and to ensure a wide range of financial products.

Customer satisfaction is a complex parameter: customer-bank relationships are long-term oriented, thus customer satisfaction is very important for banks. Satisfaction is no mere performance parameter, though, which makes its systematic consideration in pricing more difficult and requires a particularly intensive analysis.

The decisive criteria for successful pricing are as follows:

1. **Information as a central basis**

   Price-setting decisions are only as good as the underlying information, for instance on market developments, competitors and customer preferences. The capacity to identify the relevant information, assess it and take quick decisions on this basis will gain even more importance in the future.

2. **Consistent integration of price setting strategy into overall strategy**

   Pricing must fit, both from the customer's point of view and in relation to the organizational and operating processes within the company.

3. **Communication of pricing and related services**

   Greater transparency in particular requires not only greater efforts by banks to better communicate their pricing decisions but also the value proposition of products and services.
1. Introduction

Pricing matters to companies for two key reasons: it impacts on customer satisfaction and profitability.

Banks’ clients have become more demanding and customers’ willingness to switch to other providers has risen. It is against this background they need to set prices for their products and services at present. Analyses suggest that prices for bank products play a central role in the consideration to switch banks. In recent surveys, roughly half of respondents state dissatisfaction with fees and partly also interest rates as a factor which influences their decision to switch.1 Furthermore, customers identify pricing as an area where they wish to see improvements and regard these as a suitable means of increasing satisfaction with their bank.2

At the same time, retail banks in Germany are under continuing cost and earnings pressure. The refocusing of many financial institutions on retail banking and the emergence of new competitors from other sectors, such as for mobile payment services, is intensifying competition. Given this situation, pricing policy may generate short and long-term competitive advantages by boosting profitability and customer satisfaction.

In addition, pricing for retail financial products matters for the economy as a whole. Prices serve as signals in markets, provide information and therefore influence supply and demand of financial products. Prices therefore have an impact on savings, wealth accumulation and efficient financial market intermediation in an economy and also have distributional effects. Finally, banks’ pricing policy for financial products has become increasingly scrutinized by regulators and subject to public criticism.

How do prices and pricing processes for retail financial products evolve against this background? The first part of this analysis gives an overview on conceptual foundations of pricing in retail banking. Subsequently, it examines the role of customer satisfaction in pricing policy. We conclude this analysis by discussing the role of regulation and trends that are impacting the pricing of retail financial products at the moment and in the near future.

2. Pricing of retail financial products – the basics

2.1. Prices and pricing policy

Prices – typically expressed in monetary units – are paid by a buyer to a seller in exchange for a good or a service. They result from the interplay of supply and demand – this the shortest and at the same time the most comprehensive explanation of how they are determined.

From the supplier’s point of view, prices are key to generate earnings, i.e. they are decisive for the viability of the company. If, in the long term, it is not possible to provide a profitable offering that covers costs and enables investors to receive a decent return, the company will have to exit the market. On the demand side, customers of course react to prices and at the same time influence them with their (buying) behaviour.

---

1 See for example Capgemini (2012) or Ernst & Young (2012). Both surveys were conducted on a global scale.

2 See Ernst & Young (2012). Respondents most frequently cited changes in fees and charging structures as the category of measures/activities (out of 15 in total) that they regard as the most appropriate means of boosting their satisfaction with their bank’s product range (potentially).
Pricing in retail banking

Preferences, income and demand elasticity of buyers, product characteristics, production costs and the regulatory framework on the market affect "how much" a product ultimately costs and which scope an individual company has when it comes to pricing.

What is more, pricing issues are part of marketing which focuses especially on the question of how companies adjust their pricing strategy to offer buying incentives for products. This not only concerns the price level but also decisions as to how pricing decisions are taken, presented and implemented. Typically, boosting profits and customer loyalty are key objectives for pricing.

2.2. The market for retail financial products

In theory, three stylised market situations can be distinguished, that is (pure) competition, oligopoly and monopoly. Market conditions have an influence on the scope for implementation of companies’ price policy and their underlying calculation. In practice, precisely determining the extent of competition in banking markets presents some conceptual and empirical challenges.

Competition between banks already in the market but also potential new entries matter on the supply side. On the demand side, customer behaviour and possibilities to switch also affect the intensity of competition. While structural data, such as the number of competitors or market shares, provide some information about the market, they typically do not give clear indication of price levels in a market or the intensity of competition for individual products.

Accordingly, several factors need to be taken into consideration to assess the degree of competition in a market, including inter alia information on market structures (e.g. the number of competitors, market shares or concentration metrics), model-based competition indices and price-based metrics. The basic idea for the two latter categories is that deviations of actual prices and estimated values can be used to draw inference on existence and use of market power, i.e. pricing and (lacking) price adjustments are used for the assessment of competitive conditions. Essentially, the theoretical approaches reflect the close link between the competitive situation in a market and the price setting.

In practice, there are numerous reasons for deviations from the stylised model of perfect competition. For example economies of scale, network effects or information asymmetries play an important role in retail banking markets.

Furthermore, price setting in the retail banking market is strongly influenced by the regulatory environment. On the one hand, it has an indirect effect on pricing via costs and competitive conditions in the market. On the other, regulations can directly target pricing policy, such as rules with regard to the representation of price information, for the calculation and adjustment of prices and in some cases even explicit price caps and price floors. Regulators are confronted with the task of reconciling consumer protection, efficiency and the stability of the financial system; companies adjust their pricing policy to the regulation in place.

In Europe, retail banking markets continue to display major differences with regard to intensity of competition and pricing which reflect the respective competitive situation as well as local peculiarities. This not only leads to price differences for certain products, such as for deposits or lending rates, but also to differences in pricing policy decisions concerning the calculation and presentation of prices across Europe. For instance, staggered interest rates for overdraft facilities are common in the Netherlands; in the UK, pricing models for

<table>
<thead>
<tr>
<th>Different degrees of market concentration in the European banking market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Germany</td>
</tr>
<tr>
<td>Spain</td>
</tr>
<tr>
<td>Italy</td>
</tr>
<tr>
<td>UK</td>
</tr>
<tr>
<td>France</td>
</tr>
</tbody>
</table>

Note: The C5 concentration rate measures the share of the five largest banks in the sum of assets. It is one possible indicator to measure market concentration. Higher values indicate higher concentration.

Source: ECB

---

3 While monopoly, oligopoly and perfect competition always imply a situation with many customers but a differing number of suppliers, another variety to be distinguished is the monopoly, a situation with many suppliers but only one customer. This situation materialises, for example, when tenders are issued by public authorities, but it is not relevant for the analysis of retail banking markets in practice.

Pricing in retail banking

accounts without an annual maintenance fee were common for years and instead higher payments were made for account services via other fee models. In Spain, the purchase of financial products in some cases brings with it "extras" such as suitcases and sets of knives, which in Germany are more often awarded as bonus gifts by retailers in their loyalty programmes.

The retail banking market in Germany seems to be comparatively competitive if concentration measures are used. Nevertheless, measures of competitive intensity at the national level only partly reflect local competition conditions. This is an important factor for pricing policy because many banking products have remained essentially local. Hence, if there are only few offers, this may lead to local oligopolies or monopolies, so to speak.

Furthermore, the market for retail financial products in Germany can be characterised as relatively "saturated". In this situation, suppliers compete for market shares: the more difficult it is to acquire new customers, the stronger the focus of pricing policy on improving customer loyalty. At the same time, a greater willingness to switch providers – and some survey findings suggest that it is quite common in Germany by international standards – implies a twofold challenge to banks' pricing policy. On the one hand, they are keen to strengthen customer relations, on the other, it may be appealing to also use prices to convince potential "switchers" of the merits of one's own offering.

2.3. Special features of financial products and their importance for pricing policy

In addition, retail financial products have some special features which have a strong impact on pricing policies. When making the purchase, it is from a customer's point of view typically more difficult to assess the actual service bought than in the case of many other products and services – and this applies irrespective of the price or pricing model. Financial products are bought relatively seldom, and the dates on which they are paid for and used often diverge, which typically makes the assessment and ascription of the value more difficult. Greater uncertainty about evaluating the performance is first of all typical with services compared to many goods, for instance in the retail sector. This applies all the more to financial services because the underlying services are quite abstract. Furthermore, quality and the benefit from a customer's point of view, for instance the functionality of payment services or the performance and returns of investment products in many cases become apparent only over time – which distinguishes them from other services, such as manual repairs, cultural events or holiday trips which are linked with more immediate and obvious utility gains for customers.

Furthermore, retail financial products tend to be 'low involvement' goods, i.e. there is not much excitement about and interest in the product "itself" in many cases. Account and payment services are perceived similar to infrastructure services, which hardly get noticed (unless they fail to function). As for investment and lending products, in turn, interest and appreciation are focused on the target, i.e. wealth accumulation, the purchase of a car or a house, while the investment itself is rather associated with a certain amount of effort and some uncertainty, and the loan mainly with obligations (and potentially also uncertainty as to the ability to pay it back).

What does this mean for pricing policy? On the one hand, a low level of perceived benefit or utility reduces the willingness to pay. On the other, this notion is counteracted by the fact that the purchase of many financial products is essentially purpose-driven (wealth accumulation, hedging or financing purchases) and/or there is a substantial need to be addressed (financing a

---

4 Fewer banks in Germany

<table>
<thead>
<tr>
<th>Total number of credit institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include legally independent building and loan associations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1,000</td>
<td>2,000</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Bundesbank annual statistics

---

5 See Fischer/Hempell (2006) and (2007) for example.
Pricing in retail banking

Customers typically know less about prices when they buy a product less frequently. This can make it more difficult to assess precisely whether an offer is particularly good value or too expensive because they do not (or not precisely) know the market price and do not remember the price of former transactions. While this can mean greater scope for pricing, possibilities for information gathering and competition between suppliers set limits in practice, though. In addition to buying frequency which affects (implicit) knowledge of prices and products, spread of products also plays a role. For example, spread leads to a decline in information costs because asking for information is straightforward and makes it easier to get information about ‘bread and butter’ financial products. At the same time, especially in the case of major financial decisions, e.g. when taking out a real estate loan, there is a stronger basic incentive to extensively gather information before purchase because the decision implies considerable financial commitment and is also important for one’s own life and asset planning.

Furthermore, the information customers gather influences their expectations and judgement of prices. To that effect, firms’ pricing needs to take into account customers’ information behaviour, what price and product components they focus on and on what basis they compare offers. One example of this is that customers increasingly use price comparison sites before making a purchase. However, this also means that their focus somewhat shifts towards those features that they can easily research and compare online or that get flagged on comparison sites. If pricing does not take this into account accordingly, offers perform poorly in comparisons or do not even show up at all. The example shows that information behaviour has repercussions on pricing and also product design. It also emphasises that pricing has to consider the interplay between customers’ information behaviour, distribution channels and buying decisions.

Finally, that customers are often somewhat uncertain when it comes to evaluating financial products presents a particular challenge for designing pricing strategies. A competitive price is part of the “package” that convinces a customer to buy a product. The price however is evaluated in relation to expected performance and value associated with what is purchased. If customers are uncertain about what they will get, it is less clear which price can actually be convincing or corresponds with a certain satisfaction level from the customer’s point of view. At the same time, prices are important beyond a single transaction as they feed into longer-term buyer-seller relationships. When it comes to the assessment of performance and evaluation of products, pricing policy can mitigate this only to a limited extent. Nonetheless, it remains a decisive factor as to whether price level and price models have a negative effect on customer satisfaction and profitability. Here, it must be taken into account that – due to uncertainty when it comes to the assessment of performance – factors such as perceived fairness of prices from the point of view of the customer play a larger role for customers’ satisfaction with prices.

2.4. Only a question of price?

Of course it is also relevant for the execution of pricing policy to what extent prices actually play a role in the purchasing decision. A low level of interest in the product itself does not necessarily mean that the price is not considered important when buying. Here, the price level is usually only one factor. For many consumer goods factors such as innovation, design or prestige often have an influence on the purchasing decision and can help to differentiate the products and increase the willingness to pay – think of consumer electronics or cars. With
Richer parts of Germany search investing options more actively

<table>
<thead>
<tr>
<th>X-axis: Search for term deposits, Y-axis: Per-capita saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

Index search frequency (2004-2012), saving (2009), Data for German Länder.

Sources: Google Trends, DSGV/Federal statistical offices of the Länder.

Money market funds in the US and substitution effects

In the US since the start of 1930s interest rate ceilings had applied to deposits at commercial banks, while the paying of interest on demand deposits had been prohibited. Partly this was also meant to prevent excessive competition for deposits that could have a negative impact on financial stability. One effect of the regulation was that savers went looking for alternative investment opportunities. Money market funds thus increasingly emerged as alternatives in the 1970s when the yields on US Treasuries were much higher than the interest rate ceiling on savings deposits.

Financial products other moderating aspects come into play. Convenience factors such as proximity and accessibility of the offer, i.e. whether there is a local bank and which services it provides via different channels are considered in the purchasing decision. These aspects may contribute to the formation of various sub-markets, i.e. depending on how much customers take other factors into account besides the price, the offering becomes differentiated, such as between branch-based banks and direct banks. On top of this, one precondition for the purchase of financial products is a certain degree of trust – precisely because it is often difficult for the customer to make a performance assessment for products. Correspondingly, reputation, (perceived) competence and security also play an important role. Factors other than price levels that play a part in the purchasing decision may reduce price elasticity and are a reason why price differences among suppliers in a market may exist over a longer period of time.

2.5. Pricing policy for financial products requires differentiation at the product level

Besides taking these general characteristics into account, pricing strategies require assessment at the product level because ultimately this is where many parameters differ. Products have specific features and influences of competition and environmental factors may also vary. Product characteristics that affect the execution of pricing policy include:

1. **The level of standardisation**: The more homogeneous the product, the more intense the price competition usually. So for current accounts this should tend to be more pronounced than for individual asset management.

2. **Innovation**: With new products there is often greater scope for structuring prices, since the benchmark is less clear and the focus is on the innovative aspect of the product. Accordingly, stiffer price competition is the outcome in areas where there is little (scope for) innovation and generally also for the "classics" such as current accounts or simple instalment credit.

3. **Seasonality and trend dependency**: Trend products can typically be sold at higher prices than standard items, since buyers are prepared to pay a corresponding premium. Although financial products are less seasonal than consumer products such as clothing, skis or ice cream, investment products in particular are nevertheless subject to trends, e.g. investments in certain sectors or regions that impact on demand.

4. **Urgency and substitution options**: While urgency usually raises the willingness to pay and reduces price elasticity, the range of options for substituting providers and products is an important factor in the pricing of individual products. The more obvious alternatives there are, the less scope there is to enforce premia on individual products. Here, too, substitutes are frequently used to circumvent price restrictions in sub-markets.

This shows clearly that pricing policy for operating decisions has to factor in very specific product characteristics and the purchasing situation, but that at the same time a product cannot be examined in isolation, because substitution options influence demand. At the same time, exogenous influences have a differing impact on supply and demand for individual retail finance products. For example, macroeconomic conditions have a bigger impact on loan and investment products, whereas the demand for “bread-and-butter financial products”, such as bank accounts, is relatively stable. For the latter, by contrast, the trend towards online banking, the competition between traditional banks and direct banks as well as the increased use of comparison tools to assist in purchase decisions is a key issue for pricing.
Pricing in retail banking

Pricing models for bank accounts in the EU

In Germany key cost components for accounts are annual or monthly charges for basic account maintenance as well as fees for debit and credit cards. In this regard, however, there are differences between the EU member states. In the UK for instance the dominant models used to be fee based, which meant that often the account was maintained free of charge as long as it was in credit. Costs from the customer’s point of view were primarily incurred via fees for opening and closing accounts, as well as for overdrafts or withdrawals. This model, though popular when launched, has increasingly been called into question. Generally, differences between pricing models for accounts reflect both differences in competition as well as in the use of account and payment services.

The job of pricing policy is to know the relevant market and product characteristics, to correctly assess their relative importance and their combined effect and to use these as the basis for decisions about the price level and models.

How is payment made for which products?

The prices of banking products are paid in the form of fees, interest or commissions. In general a distinction can be made between unit-based and value-based prices. This applies both from the standpoint of the customer, who pays a unit price for an additional account statement sent by post and pays value-based interest rates on loans, and from the standpoint of a bank that can choose unit and value-based variables for calculating and setting prices, such as the number of portfolios or the value of portfolio transactions executed.\(^6\) The question that also arises is whether a fixed amount is paid or a variable fee dependent on the individual services used.\(^7\) This is often linked with the pricing policy consideration whether a price is being set for individual services or a package of services. Both bundling and splitting up into individual services or prices can make sense in terms of pricing policy, as they can influence the perception of prices and thus willingness to pay.

A distinction can be made between three areas:

1. **Pricing of accounts and payment services**

   Typically a price is set for a package, i.e. the use of an account and the associated payment facilities and services; hence decisions about the price level and scope of services provided are closely linked. Pricing solely on the basis of use of individual service components, would be onerous – think for instance of separate charges for every standard payment transaction or the use of telephone and web-based banking services – and imply some uncertainty for the customer and the provider. Each customer would be faced with a different price that would be unclear ex ante. In fact customers often show a preference for straightforward models, for example where they make regular payments of basic fees that are convenient, easy to monitor and do not require repeated purchasing decisions that are frequently regarded as unpleasant. The degree to which a basic price reflects the actually paid end price depends on the breadth of services contained in the package and the availment of (additional) services, such as the use of payment services in different forms, overdrafts, the number and type of debit and credit cards held etc. As a result, some users who stay within the scope of the pre-defined package of services only pay the flat fee, while others end up with a fixed fee and a variable top-up. Price calculation thus requires information about costs and usage of the individual components as well as about the demand for certain service packages at a particular price and information about how the individual price components and payment models (for instance annual or monthly fees) are perceived by the customer.

2. **Pricing of credit products**

   The prices of credit products usually comprise fees and interest. The rate of interest is basically the price paid for using another party’s money. Savers who provide capital receive compensation for deferring consumption. Borrowers in turn obtain the opportunity to satisfy immediate consumption desires or invest money in projects. Differences in interest rates reflect the underlying terms of the loan as well as credit risks.

   Banks serve as intermediaries between the providers of capital and borrowers in an economy. From the bank’s point of view the interest payments must cover

\(6\) Büschgen/Börner (2003).

\(7\) It is also possible to combine both models, such as a basic fee, which covers certain services, and other fees incurred when additional services are used.
Pricing in retail banking

Standard forms of credit for retail customers

- 
  *Overdrafts* are used for bridging short-term financing bottlenecks. Their use typically does not involve a separate loan application by the customer or a loan approval by the bank. A possible overdraft limit is typically agreed in advance for a current account receiving regular deposits and is set according to creditworthiness, how the account has hitherto been maintained and the client relationship. Moreover, no explicit repayment terms are set.

- 
  *Consumer credits* are used to finance purchases and are granted by the bank according to predefined repayment terms (maturity and principal repayment) following an approval process. The main form of collateral for consumer credits is claims on earnings.

- 
  *Medium-term loans* for purchasing higher-value consumer goods are also granted after dedicated checking of personal creditworthiness on fixed repayment terms, mostly in monthly instalments. Lenders may accept as collateral the transfer of title on the acquired objects themselves, attachable claims on earnings or also mortgages on real estate.

- 
  *Mortgages and land charge loans* are long-term loans secured on real estate. They are typically used to finance the acquisition of property and/or the construction of buildings. Mortgage loans can be granted on fixed or variable interest rate terms. In Germany the majority of mortgages are fixed-rate loans with maturities of several years. As a rule phased financing is agreed, i.e. the interest rate and principal repayments are fixed for a specific period and subsequently the terms for follow-up financing are negotiated based on the residual debt.

See Büschgen/Börner (2003) for example.

the costs of lending. At the same time, the expected yield on the loan should at least match that of an alternative investment in the capital market, otherwise the opportunity cost principle would render it more appealing to invest capital there than to lend it. Key cost components that influence the calculation of loan interest are:

- 
  *Refinancing costs* are the costs incurred by the bank on the financial markets in raising capital for lending. Banks raise funds via the capital market or via deposits. If their funding costs rise – for example due to a hike in central bank rates, regulatory changes or due to stiffer competition for deposits – this is usually reflected in higher lending rates, too.8

- 
  *Risk costs* accrue because lenders can default. The bank tries to assess this before lending and to do so relies for example on information from existing customer relationships, information supplied by the customer, public sources or information from SCHUFA, the credit rating agency in Germany. With the aid of among other things scoring models that collate information from these different data sources, the expected probability of repayment can be calculated and factored into the lending rate. Models for pricing risk can differ among providers and may translate into differences in prices. If a loan is backed by the commensurate collateral this reduces the risk costs.

- 
  *Costs of capital* are incurred by banks because they have to hold capital reserves in case of unexpected losses and the providers of capital expect an appropriate yield on their invested capital.

- 
  *Operating costs* are the costs associated with lending for the application, examination and decision on lending from the bank’s point of view. These include for instance working hours spent on consultations but also the costs of internal coordination and decision-making processes for lending or the IT costs for programming and maintaining models that are used during this process. Operational efficiency is therefore also a factor influencing lending conditions formulated by banks. For the German market, analyses suggest a positive correlation between costs and lending rates, i.e. low costs translate into lower rates as pricing policy is geared towards winning market shares.9

The payment the bank receives for providing a loan ultimately adds to revenues, profits and other relevant metrics.

Loans to households are usually used for financing consumption or property. They differ according to their availability, typical duration, repayment conditions, their collateral and thus the associated risks and expenditure (see also Box 13). These differences are also reflected accordingly in their pricing.

Loans with a higher default risk and without collateral thus tend to cost more. With longer-term loans the expected longer-term refinancing costs are thus a more important factor.

3. Pricing of investment products

When purchasing investment products a basic distinction can be drawn between the prices of securities and the advisory service associated with their purchase.

a. Again different types of investment products feature different price components. These include one-off fees, such as commissions for buying and selling shares or initial sales charges for investment funds, as well as regular components, e.g. management fees for funds.

b. Advisory services range from advice when purchasing an individual security and the devising of personal investment strategies through to

8 See Ahlswede/Schildbach (2012), Zähres (2012).
9 See Schlüter et al., (2012).
Pricing in retail banking

Main types of fees for investment funds

*Initial sales charge:* one-off fee paid when the purchase is made, with the amount also dependent on the type of fund.

*Total expense ratio:* annual fees that include the costs of operating and managing the fund as well as administrative expenditures and custodian bank fees.

*Transaction costs:* Costs incurred when portfolio switching takes place.

*Performance-related fee:* For example, fee paid to the fund manager of an actively managed fund whose performance exceeds a predetermined benchmark.

Trends towards simpler products in the certificates market

Survey of 21 securities issuers, %

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple structure</td>
<td></td>
<td>23.8</td>
<td>42.9</td>
<td>33.3</td>
</tr>
<tr>
<td>No major change(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complex structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What will be the structure of most investment products in the certificates market in the future?

Source: Derivateverband, 2012

Competition expected on price and service

Survey of 21 securities issuers, assessment of the certificates market, %

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service offerings (e.g. wider range of information)</td>
<td></td>
<td>23.8</td>
<td>42.9</td>
<td>33.3</td>
</tr>
<tr>
<td>Price</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product quality at the same price</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where will the competition be focused in future?

Source: Derivateverband, 2012

In addition, there are custody charges for the securities held in the portfolio and the associated information services, e.g. the production of earnings statements or tax certificates as well as the processing of transactions, such as stock market placements. Retail banks offer securities services that differ in scope and act as both intermediaries and providers of products.

2.6. How are prices computed?

Computing prices requires information about which amounts of a product can be sold at which price and how much of the sales revenue ultimately remains after the costs are deducted.

Against this background the prices of retail financial products are mainly determined using a market-based approach. The criteria on which this is based are internal cost data, analyses regarding willingness to pay, price sensitivity and the behaviour of competitors. Costs define the lower bound while analyses of willingness to pay help to identify the upper bound for prices. Profit margins provide information on a product’s contribution to overall company profits at given prices. In addition, potential reactions of competitors to pricing decisions are taken into account. All this information is combined for operational pricing decisions. Price elasticities, i.e. how much changes in price influence the sales of a product, as well as cross-price elasticities – i.e. to what extent price changes for one product affect demand for other products – are key when deciding about price adjustments. Hence, calculations guided by a market-based approach are always a bit iterative but also strategic as suppliers consider other players’ actions. As a result, the price that is charged reflects what can be “achieved in the market”. The logic of the market-based approach applies to both adjustment in the price level and to changes in entire price models, for instance switching from single payments to a flatrate.

In retail banking markets, the behaviour of competitors plays a particularly important part in banks’ pricing considerations. A survey about the pricing strategies and tools of European retail banks suggest that almost half of respondents rely on benchmarks as key decision-making tool, and for more than 90% comparing their own offers with competitors is at least one of the pricing techniques they use.

Keeping a close eye on other firms when setting prices can be an indication of stiff competition in a market. At the same time it reflects a certain amount of leeway in cost calculations. Production of retail banking services involves a lot of intangibles and fixed costs. These overheads need to be apportioned to different products and/or activities which sometimes can be a challenging task. In addition, there can be reciprocal effects between products. The earnings from the sale of a single product can thus be small or even negative but a low price can still make sense if it helps to boost overall sales or strengthen customer ties in the longer term. One example is favourable conditions for student accounts, which can be regarded as a type of “upfront investment” in a longer-term client relationship and also reflect the usually low willingness of this group of customers to pay for services. Economically speaking, this involves cross-subsidies, either over time or across customer groups.

---

10 See Ahlswede (2012).
12 Examples of this can also be found in the pricing models used in other sectors, such as differential ticket prices for certain groups of customer attending cultural events.
3. Customer satisfaction: A pricing policy objective

Managers seek customer satisfaction as a pricing policy objective as they assume a positive link between customer satisfaction and profitability. Satisfied customers return for purchases, buy more and help to attract new customers via recommendations, while dissatisfaction leads to complaints, lost customers and reputational damage. But what actually drives customer satisfaction, its impact on business and what can firms do to boost it and/or prevent dissatisfaction? As it turns out, answers to this are somewhat complex.

Strategies that focus on customer satisfaction as a key objective have a relationship-based approach and typically take a longer-term view. While short-term frictions between profitability and customer satisfaction cannot be ruled out, e.g. when considering price increases, customer satisfaction remains indispensable for long-term commercial success in a competitive market. Since financial services in particular are geared towards longer-term client relationships and banks need to actively compete for customers, this indicates the major importance of satisfaction for pricing policy in retail banking.

Satisfaction materialises when expectations are fulfilled or exceeded. It is thus based heavily on comparison and assessment that are impacted not only by objective/objectifiable factors but also by subjective perception. Customer satisfaction is a concept that is difficult to grasp in the framework of traditional pricing research and in microeconomic models that assume rational behaviour and full information about prices, products and preferences. For instance it would not matter to a perfectly informed buyer whether he pays a flat fee or a based charge; as long as the overall price (incl. transaction costs) remains the same, this would have no influence on demand. In reality what can however often be observed is that different price models or the visual presentation of prices influence purchasing decisions – this explains for instance the popularity of prices that end with the figure “9” or the trend towards underestimating charges levied subsequently. Prices also often trigger (emotional) reactions such as doubt, annoyance or regret – not only at the moment the purchase itself is made, but also beforehand and/or afterwards.

Behavioural pricing analyses also examine how buyers react to different offers and how they handle (price) information for decision-making. As a complement to traditional pricing research they can thus help in understanding buyers’ behavioural patterns and also the potential drivers of satisfaction or dissatisfaction.

3.1. Determinants of price (dis)satisfaction and the impact on general satisfaction

Price satisfaction is not identical to overall customer satisfaction, but it can be a major driver of this. For instance, several analyses have identified problems with prices as a key cause of dissatisfaction of customers and as one factor in their decision to change banks. Note, however, that price satisfaction and dissatisfaction with prices are not symmetrical concepts, i.e. if bank customers are not explicitly dissatisfied with the pricing this does not automatically imply a positive rating, also price satisfaction and dissatisfaction with prices are not necessarily influenced by the same factors (to the same extent). Dissatisfaction with prices is often triggered by perceived unfairness. In this case outcome and process are rated, i.e. the price level and how it came about from the customer’s point of view. Fairness judgements imply comparisons,

---

13 See Homburg/Koschate (2005) for an overview.
15 See also section 3.2.
16 See Xia/Monroe/Cox (2004).
either on the basis of personal experience (previously paid prices) or interpersonally, i.e. whether others possibly pay a lower price. On this basis buyers rate prices as either appropriate, advantageous or unfair, with the latter evoking negative and usually the strongest reactions. Research findings suggest that:

1. The reasoning for pricing plays a part in its rating.\(^{17}\)

   Cost-based pricing and price rises are more likely to be accepted, especially if these are caused by factors that the supplier himself cannot influence and the company’s profits do not rise due to the increase. Demand-based price increases, e.g. when customers urgently require a service or have few alternatives available, and the company thereby boosts its profits, are often perceived as unfair.

2. Customers look beyond prices for a particular transaction.

   Buyers assess prices for individual services or price changes in the context of their overall experience with the supplier, i.e. if they have had positive experiences in the past and are satisfied this can help to mitigate negative reactions to price increases.

3. The general perception of the company and/or the sector also influences how prices are judged.

   Image effects of individual companies play a part here, i.e. if a company is generally regarded as a keenly priced supplier this is often assumed to be the case for individual transactions as well – whether this is actually the case or not. That also overarching factors, such as the perception of a sector overall or macroeconomic conditions, are also incorporated in assessments means that pricing policy must be conducted in a correspondingly context-sensitive manner.

Ultimately the comparability of transactions and the choice of reference points, i.e. what serves as measure for comparisons is a major factor. Different prices for the same service are hard to justify – even though a price differentiation can be based on economic reasoning reflecting differences in clients’ willingness and ability to pay. The interaction of pricing policy and product design are important in this respect. Products that are (perceived as) different can be offered at different prices without this having a negative impact on customer perceptions.

Prices regarded as unfair typically reduce the esteem for the product purchased and often trigger further-reaching reactions. Studies suggest that prices of retail financial products deemed to be unfair are an important reason for switching providers. However, they seldom result in complaints being made directly to the provider.\(^{19}\) This pattern can be a problem for banks’ pricing policy because it means that the impact of price dissatisfaction only becomes visible with a time-lag – essentially when it is too late for suppliers – and that aggrieved customers seek other ways to express displeasure.\(^{20}\) Complaints via social networks or political pressure for stricter regulation of pricing can be examples of this.

As with overall satisfaction, price satisfaction is generated when the actual price matches with a customer’s expectations.\(^{21}\) Note that price satisfaction does not require necessarily the lowest price. Equally, price satisfaction does not decline automatically when the price rises. Here, too, comparisons, context and the intermediation process influence the outcome.

---

\(^{17}\) Ibid.

\(^{18}\) See Homburg/Koschate (2005) and Kahnemann/Knetsch/Thaler (1986 a,b).

\(^{19}\) See Colgate/Hedge (2001).

\(^{20}\) Studies also suggest that complaints behaviour differs from country to country.

\(^{21}\) See Diller (2007).
Pricing in retail banking

Price satisfaction is a product of several elements, for retail finance products in particular a distinction can be made between the following factors:22

1. *Price-quality ratio*, i.e. whether the costs are perceived as commensurate for the quality of the service offered.

2. *Relative price*, i.e. how the price measures up to competitors’ offers.

3. *Price reliability*, i.e. whether the price is currently good value and whether the presumed price corresponds with the actual price or contains ”hidden elements” that are not visible at first glance.

4. *Price fairness*, i.e. whether the price is judged to be fair and justified(ified) by the customer.

5. *Price transparency*, i.e. whether the price is clear and easily understandable.

The relative importance of these components can be established using survey data and quantitative market research. For instance, the findings of an analysis of Austrian bank customers suggest that all of the above-mentioned factors have a significant influence on price satisfaction, but influence it in different ways:23 Several components, such as the price-quality ratio, the relative price and price fairness, strongly reduce price satisfaction if the satisfaction in those sub-areas is low; high readings among the satisfaction components boost price satisfaction overall to a much lesser extent. Other factors such as price reliability, by contrast, have a greater impact if satisfaction is high here. A third group has a relatively symmetrical impact, with price transparency being one example. Thus, when considering measures to increase (price) satisfaction, strategies require careful planning: Some components are more effective to boost satisfaction. Others may generate little positive impact but can still be highly disadvantageous if suppliers neglect them.

The basic conceptual logic on price satisfaction components is the key take-away, i.e. dividing satisfaction up into different parts and realising that these can act asymmetrically. The specific empirical results on which components matter and to what extent are informative, but their general applicability to the execution of pricing policy in retail banking may be limited. While working with survey data always involves some caveats24, there are two additional issues in this case: 1. Older analyses cannot reflect the change in the situation following the financial crisis and also increased competition from direct banks, and 2. results from different countries are only applicable to a certain degree, because expectations regarding price level, services, cost consciousness and also switching options are heavily influenced by the national context. This is not only a challenge for research aimed at making cross-border comparisons. Often cross-country comparisons form the basis for defining the regulatory provisions for pricing policy, particularly at the European level. However informative these assessments may be, it is important to select indicators carefully and to take the market-specific context properly into account in order to avoid drawing the wrong conclusions.

For managers, however, existing analyses leave a different gap: It is difficult to derive operational strategies for their companies’ own pricing policy or even individual products on this basis. Companies want information about the expectations and experiences of their customers and how these may differ from their competitors. Scholarly research and aggregate analyses can be a first step in this respect, establish conceptual principles and point to dissatisfaction.

---

22 See Matzler et al. (2007).
23 Ibid.
24 Attention should be paid here for example to the scope and composition of the group of respondents as well as the survey context and precise wording of the questions.
Pricing in retail banking

(potential) but at the same time prompt providers to conduct more detailed analyses to learn about their own clientele.

3.2. Satisfaction: Important but a difficult concept to manage

Customer satisfaction is harder to manage than other business metrics (e.g. earnings). This is because the drivers of satisfaction/dissatisfaction are more complex. It is often the case that the relationships are not linear ("the more X, the greater the satisfaction"), factors interact or effects only occur in certain customer groups. A better understanding of these relationships is ultimately in the interest of all market participants. In order to make satisfaction a usable variable for pricing policy, good and timely data is a sine qua non. Secondly, the findings of behavioural economics and pricing research underline that pricing policy is not an isolated issue. Ultimately pricing policy and the overall value-proposition have to tally from the customer's point of view. Companies need to embed pricing as part of their overall strategy and communicate offers accordingly in order to achieve this.

3.3. Current pricing trends – opportunities for increasing satisfaction?

Data analysis is the prerequisite for better handling of customer satisfaction as a target of pricing policy. At the same time data analysis is key to current pricing trends inside and outside the retail banking sector. A number of these trends will be addressed below.

1. Dynamic pricing is the rapid adjustment of prices to demand conditions based on real-time data. Examples of this include airlines which price their tickets according to the remaining seat availability. Increasingly, dynamic pricing is also being deployed in the retail sector to improve inventory and supply-chain management. For consumers this means more frequent adjustment of prices. However, due to experience with online purchasing, this may become more and more acceptable offline as well. Also, price adjustments are increasingly being linked with targeted marketing campaigns for specific customer groups, for instance via email or social networks. One potential disadvantage of this approach is a lack of consistency and thus reliability in the customer's perception and the fact that aggressive promotional offers can often be regarded as a nuisance.

2. Behavioural pricing is a form of price discrimination in which different prices are charged based on the usage and/or buying history. The area where it has the most potential is for online purchases, as collecting and evaluating large volumes of data are easier via this channel. In this case, too, price offers are often combined with targeted promotional campaigns. Similarly, the downside in such cases is that promotional campaigns are perceived negatively, that concerns persist about the protection of personal data and privacy and also that price differences, even if they are the result of one's own behaviour, can be considered unfair.

3. Loyalty pricing can be considered a special type of price differentiation based on behaviour, since the idea is that loyal customers are rewarded with better conditions. This is widespread in retailing, for example, where typically the repeated purchasing of certain products from the same provider or a purchase above a certain value is rewarded with more favourable terms or bonuses.

To do this a detailed analysis could be carried out for example on the significance of prices and individual components for price satisfaction in different phases of the purchasing decision and the impact on different customer groups. Also, the influence of context factors and the conveyance of price presentation, price changes etc. requires more analysis.
To a certain degree one variant of loyalty pricing is relationship pricing, which factors the client relationship overall into the price-setting procedure. For instance, customers in network industries often obtain a more favourable price if they purchase a bundled offering of several services such as internet, telephone and TV.

What do these trends mean for pricing in the retail banking segment? First of all, some elements of them are not entirely novel: credit products reflect changing refinancing costs and thus contain at least a certain dynamic component. The incorporation of personal risk factors into the interest rate includes to a certain degree behaviourally based price differences. And price reductions for good customers are not very different from loyalty programmes in terms of the basic idea.

At the same time, the approaches described above offer opportunities for instance for faster adjustment to competitors via dynamic pricing, better price and service differentiation according to differing customer requirements and local market conditions, and thus the potential boosting of profitability and customer satisfaction. Adoption and success of these pricing strategies in retail banking will also depend on changing customer habits, for instance with regard to technology usage, information behaviour or purchasing experience in other sectors. Rather than a fundamental revolution to banks' pricing, these approaches are likely to lead to a gradual optimisation of calculations and models. This is also suggested by a relatively stable product range in the core business of retail banking. Fundamental challenges to price models can, however, arise in several sectors due to new competitors (also outside the banking sector) and regulatory provisions that explicitly require changes in pricing models or implicitly influence the pricing calculation.

### 4. Pricing policy and regulatory conditions

Regulation means new demands being placed on pricing policy at different levels; it can include, for example, rules concerning calculation methods, permissibility of certain price components, the level or the depiction of prices. More attention is then focused on transparency, with regard to account fees or lending and also to commissions paid when investment products are purchased. Greater transparency is intended to promote consumer protection and boost market efficiency, as transparency is one of the prerequisites for functioning (price) competition.

**Note:** However, one difference lies in the organisational structure (decentralised/centralised) and the fact that a fixed programme can also be advertised accordingly.

---

Source: Oliver Wyman 2012
4.1. Transparency & consumer protection

There is no universal definition of when or at which level prices are perceived as transparent by consumers. Efforts to boost transparency are usually aimed at three factors: 1. Accessibility, 2. comprehensibility and 3. comparability of price information. While the first aspect is comparatively easy to establish and the precondition for comprehensibility and comparability, the last two criteria always remain subjective to a certain degree. The understanding of price information is influenced by prior knowledge and comparability by the yardstick chosen. Also, comparability does not yet mean that an active comparison is actually made.

Moreover, some prices are perceived as being straightforward but may still be difficult to truly compare. For example, a flat fee is easy to understand, but not necessarily therefore transparent. For a customer to judge whether the price is good for him he actually needs to know how his usage habits compare with those of other customers. However, it is precisely the simplicity of the price model that often reduces the awareness of one’s own usage of the components contained therein.27

In order to make comparisons with other offers not only the price but also the quality of a service would have to be comparable. This is more difficult because quality is frequently multidimensional and not fully measurable using standardised service descriptions. In addition, banks can compete with one another not only on price but also according to other criteria, such as service or a well-functioning and innovative online offering.

After all, customers also have differing requirements of bank services and therefore a varied range of services can generate added value for customers. Variety brings with it the opportunity of finding the offering that suits one's personal requirements. At the same time it requires also somewhat more time and effort for the individual search and comparison. The necessary precondition for this is the availability of (price) information but also the imparting of the skills to use it as well as the ability to assess the services offered and reflect on one's own needs.

If sustained improvement in the transparency and comparability of financial products is the policy goal, a certain awareness and understanding of the product or of the accompanying services thus appears to be important. This does not mean making one-sided demands of customers for assessment. Instead, effort is required on the demand and the supply side. Also, comprehensive approaches that go further than price policy in the more narrow sense are needed for transparency. Strengthening financial education is an important element here and helps to create effective and sustainable comparability. At the same time, it can also strengthen personal willingness to compare offers because existing skills reduce information costs.

4.2. Transparency & market efficiency

In markets for retail finance products different prices can often be observed for sustained periods. But does this automatically mean competitive failure, and which role does price transparency play in such cases? Persistent price differences can be caused by a variety of factors:

1. It occurs with heterogeneous products, because different services are priced at accordingly different levels.
2. Switching barriers can constrain customer mobility and thus competition.

27 For instance, one factor that prompts customers to choose flatrate offers is the desire to avoid having to make repeated purchase decisions that are often perceived as unpleasant.
3. If customers encounter search costs and systematic information differences, this can result in (ex ante) well informed customers paying a lower price. Heterogeneity of products is first of all not to be equated with market failure. If price differences reflect different needs accordingly, they do not therefore appear problematic in the first instance. At the same time, an actually homogeneous product can still be perceived in different ways occasionally and influenced by the circumstances surrounding the purchase, the quality of service or factors such as the brand and reputation of the provider which can also be beneficial for customers. These are only partly based on objective and/or standardisable criteria and often reflect personal preferences, for example with regard to situation-related accessibility, brand preferences or requested services.

Barriers to switching, by contrast, can be a problem – from the customer's point of view and because they can seriously impair market efficiency. The challenge is that although an outcome, i.e. low switching rates, can easily be observed, pinpointing the actual underlying reasons for such rates is, more difficult. A small number of active switchers does not necessarily mean there is little competition, since it is precisely when switching is easy that providers have to make special efforts to appeal to customers. If they succeed in these endeavours, the result is also low switching rates. On top of this are ‘implicit’ barriers to switching financial products that are virtually impossible to regulate sensibly, such as personal relations with client advisors or the fact that family or friends use the same provider. Experience also shows that socio-demographic factors influence the need to switch and the perception of barriers to switching financial products. For example, young employed people tend to switch more often than pensioners. If regulation is to be used to address barriers to switching, a detailed examination of the reasons has to be conducted taking into account the specific market conditions as the prerequisite for improvements.

In has been noted above that dissatisfaction with prices can be the motivation for switching. However, an excessively complex price structure can make switching difficult, if it makes comparisons onerous and thus increases search costs. One argument here is that a complex pricing structure can be used deliberately to achieve higher prices. Theoretical models indicate that this can occur if some customers are better informed than others. Even new entrants to the market do not necessarily result in price reductions in this case.

There are nevertheless reasons which make complex pricing structures a less appealing strategy. Technology reduces information costs for consumers and therefore makes it potentially easier for them to gather information about products and prices. This applies for new purchases but also with regard to the ongoing comparison of conditions for already purchased financial products and the assessment of potential alternatives.

A high degree of complexity might also be more difficult to depict, especially when customers are searching for quick information “at a glance”. In addition, especially as a consequence of the financial crisis many customers prefer simple products and occasionally have strong reservations about perceived complexity. This is indicated both in surveys in which factors such as transparency and simplicity are given a higher weighting by the respondent consumers than was the case before the financial crisis and by the large inflow of assets into simple savings products. Especially against this background a lack of accessible and comprehensible information may be perceived as a

28 This type of price differentiation can be observed even in easy-to-compare everyday products and services, such as a cup of coffee, where prices are very transparent (in the sense of being easy to locate and understand) and nevertheless occasionally differ significantly.
Pricing in retail banking

5. Conclusion

Price policy is especially important in the current situation, in which banks are searching for profits and growth opportunities and at the same time the relationship of trust between customers and banks is being redefined. Although it is not a panacea, pricing is a necessary element in mastering these key challenges. This analysis has shown that pricing calculations for retail finance products are complex as they rely on numerous pieces of information – especially the reactions and opinions of the customer.

This means that one key to the success of retail banks’ pricing policy is their capacity to identify and collate the information required to set prices and make decisions on this basis. The technical capabilities for analysis have grown considerably in the past years. They provide the potential for delivering thoroughly informed pricing decisions, making more adroit use of more complex indicators, such as customer satisfaction, and also being able to evaluate and adapt decisions more quickly. The challenge for retail banks is to make smart use of these new capabilities to develop more customer-centric offerings.

Especially in view of the trend towards greater transparency there will also be a greater onus on banks to be convincing in communicating both their prices and the services that they provide.

Ideally, regulatory framework conditions can act as a catalyst in this process. The decisive factor, however, is an evidence-based approach to regulation that acknowledges the multifaceted nature of the price determination processes in retail banking. In particular, the formulation of Europe-wide regulations will remain a particularly challenging domain.

Patricia Wruuck (+49 69 910-31832, patricia.wruuck@db.com)
Bibliography


Ernst & Young (2012). Global Consumer Banking Survey.


Oliver Wyman (2012). Pricing at European Retail Banks.


Zähres, Meta (2012). Capital market bank funding: (Not such a) brave new world… Current Issues. Frankfurt am Main.
Current Issues

- **Focus Germany: GDP forecast:** Uptick in Q1, slippage in Q2 ..................April 30, 2013
- **Focus Germany:** Sentiment indicators – another setback in spring .........April 2, 2013
- **Focus Germany:** The worst is (probably) over ........................................March 1, 2013
- **Focus Germany:** Gradual improvement in 2013 ..........................January 28, 2013
- **Two years of Arab Spring:** Where are we now? What’s next? ..................January 25, 2013
- **FATCA & Intergovernmental Agreements:** Automatic exchange of information on taxes on the rise ......................................................January 16, 2013
- **Medical technology:** Electromedicine driving healthcare .........................January 16, 2013
- **More value creation through knowledge (assets): Implications for regional growth strategies** .............January 7, 2013
- **Germany at the polls:** The 2013 elections and the future of the euro .............January 4, 2013
- **The future of (mobile) payments:** New (online) players competing with banks ...........December 20, 2012
- **Focus Germany:** German business cycle at the turning point? ...................December 3, 2012
- **Universal banks:** Optimal for clients and financial stability ......................November 20, 2012
- **GCC financial markets:** Long-term prospects for finance in the Gulf region ..................November 14, 2012

Available faster by E-mail: marketing.dbrr@db.com

© Copyright 2013. Deutsche Bank AG, DB Research, 60262 Frankfurt am Main, Germany. All rights reserved. When quoting please cite “Deutsche Bank Research”.

The above information does not constitute the provision of investment, legal or tax advice. Any views expressed reflect the current views of the author, which do not necessarily correspond to the opinions of Deutsche Bank AG or its affiliates. Opinions expressed may differ from views set out in other documents, including research, published by Deutsche Bank. The above information is provided for informational purposes only and without any obligation, whether contractual or otherwise. No warranty or representation is made as to the correctness, completeness and accuracy of the information given or the assessments made.

In Germany this information is approved and/or communicated by Deutsche Bank AG Frankfurt, authorised by Bundesanstalt für Finanzdienstleistungsaufsicht. In the United Kingdom this information is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange regulated by the Financial Services Authority for the conduct of investment business in the UK. This information is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. and in Singapore by Deutsche Bank AG, Singapore Branch. In Japan this information is approved and/or distributed by Deutsche Securities Limited, Tokyo Branch. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product.

Print: ISSN 1612-314X / Internet/E-mail: ISSN 1612-3158