

ОБЩЕСТВЕНИ КОМУНИКАЦИИ И ИНФОРМАЦИОННИ НАУКИ **PUBLIC COMMUNICATIONS AND INFORMATION SCIENCES**

RELEVANCE OF CAR FINANCING IN GERMANY FOR PRIVATE CUSTOMERS

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Abstract: *Automotive car finance is an option in car sales, enabling automotive customers to finance their purchase, giving them exclusive access to a vehicle until repayment of the credit or when they return the car. Customers can either purchase a car via an (electronic) cash transfer or via a means of car financing. Car financing products are classified into car loans, with different loan variations, and leasing, where customers return the vehicle at the end of the lease. The economics of the financing products are similar and based on the contract duration, interest rate, and expected residual value, which is derived from the driven mileage and time. This paper discusses the dynamics of car financing, which has been recently influenced with an increase of refinancing costs of Euribor, the specific products offered in the German market, which are KM-leasing and a multi-option credit and its relevance for the German private new car sales, as well as related stakeholders like OEMs, car retailers and banks offering the products.*

Keywords: *Car Financing, Retail Car Sales, Germany, Credit, Leasing*

INTRODUCTION

As one of Germany's most relevant industry sectors, the automotive industry is responsible for 4.7% of the national GDP in 2016 (DESTATIS 2019), with an ambition to become emission-free in the long term with the introduction of BEVs. BEVs are considered more expensive than traditional combustion engines, which require a higher purchasing power from consumers for the outright purchase. However, there might be benefits of lower operating costs when customers overcome the higher entry barrier of increased price (Moll and Link 2021).

Car sales in Germany have drastically reduced starting with the Covid-19 crisis in 2020, falling from 3.6m in 2019 to 2.9m vehicles in 2020, with the lowest point in 2021 (2.62m), the vehicle sales are now continuously recovering to 2.65m in 2022 and 2.84m in 2023, of which 32.8% are registered on behalf of private consumers (~930k), the focus group of this paper. Important to note is that in this context, the mix of vehicles has drastically changed; at the end of 2019, more than 85% of vehicles which have been sold were equipped with combustion engines, whereas in 2023, the combustion engines reached a market share of around 50% (KBA 2023c, 2023b, 2023a, 2024). This has implications for the transaction price of new cars, which has already increased around 5000€ in 2022 (Büttner 2023).

Banks and leasing companies (LeaseCos) offer different financing solutions to make vehicle purchases affordable. OEM-owned banks, also known as Captives, have a long tradition in Germany and reaches back to the 1930s, when Ford introduced the first Captive in 1926, followed by Opel and Fiat in 1929 and further OEMs after World War II (Berger 2007, 182). Volkswagen

Leasing introduced leasing in 1966, a product initially targeted at corporate customers for accounting and tax benefits, but now widely accepted by private customers (Stenner 2010, 2). Dominant in Germany is currently leasing or financing to purchase new cars for private customers. Statistics show that 62% of all privately purchased vehicles were financed, and 22% were leased in Germany in 2020. This concludes a total market penetration of 84% for car financing in Germany within the retail and private customers sector (DAT 2021, 4).

RESEARCH METHODOLOGY

The research of this publication is based on literature review, where a specific focus is set on understanding the role of car financing within Germany, as well as existing studies on impact of car financing on the retail car sales landscape in Germany. The research should allow to conclude on to what extent car financing is required to sell new cars towards private customers in Germany and how car financing can influence further goals of industry stakeholders, like OEMs, retailers. The literature review includes published books, journals, research papers, and online articles, as well as websites, which are used to consider more recent evolvments. In a first step the dynamics of car financing is explored, to understand what drives the attractiveness of car financing offers for private customers. Secondly the car financing products are explored to understand how car financing is marketed to customers. In the final section, research results on car financing influencing car sales are explored.

DRIVERS OF MONTHLY RATES FOR CAR FINANCING

Car financing products are provided by independent banks, Captives, or LeaseCos, which allow the vehicle to be repaid via monthly rates instead of an outright electronic cash purchase. Financing players calculate the monthly rates using the interest rate, the contract duration, and, depending on the product, a residual value.

The interest rate the customer is required to pay is calculated based on the refinancing rate the bank must pay to acquire the funds and the margin spread it adds on top. The margin spread needs to cover the OPEX, probability of default, eventual commission to partners, and a profit margin. A lower refinancing rate, which can be measured via the 3-month EURIBOR, has been beneficial for car loans and cheap monthly rates. The figure below shows the evolution of the EURIBOR 3M from 1999 to 2023, highlighting the current challenge in refinancing costs. (Figure 1; Deutsche Bundesbank 2024)

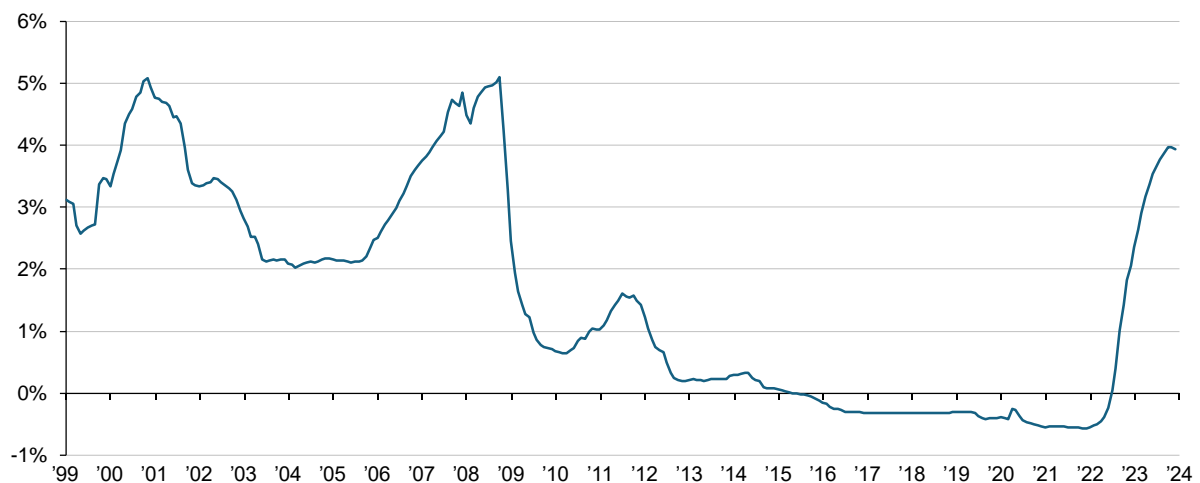


Fig. 1. Evolvement of EURIBOR 3M from 1999 to 2023

Whereas the car financing market has been benefiting from low refinancing costs and resulting monthly rates, this has drastically changed in the past two years, when interest rates have increased. This overall decreases the affordability of car financing products as the monthly installments become higher.

If customers choose a product where it is not intended to repay the credit product within the contract duration, financial services players need to set a residual value in the contract. This can be the case in a balloon credit, where the customer is obliged to repay the last installment, or in a lease, where the lessor takes the RV risk, and the customer hands back the vehicle at the end of the lease. The RV is driven by the expected transaction price the vehicle is assumed to achieve at a given point in the future when the vehicle is remarketed within the Used Car market. Attractiveness is mostly driven by the brand and model, but detailed factors like color and vehicle configuration might also increase or decrease valuation. Furthermore, most notably, the vehicle age and the mileage driven decide on the used car's value. It is important to note that the yearly depreciation decreases every year; hence, the vehicle loses a large share of its value within the first years. In addition to that, business decisions and the risk appetite of players play a critical role in setting the RV. In traditional loan products, where the customers take the RV risk, banks are more likely to set a more conservative RV estimate to avoid the risk of a customer not being able to repay the loan, as their used car can't be sold for the RV. Meanwhile, in leasing, the market competition might lead players to set a more competitive RV to increase the volumes and balance sheet size, which is critical for economies of scale in operational costs. Also, LeaseCos might integrate remarketing within the value chain to be more successful and achieve higher prices in the used car market when retailing the leasing returns. (Diekmann 2009, 8; Stefan Lessmann et al. 2010, 2–5)

PRODUCT OPTIONS OF CAR FINANCING

Car financing products have evolved over time, whereas the historical starting point was with only credits, where customers had the option to make a down payment and monthly amortize the loan with installments, which also included the interest rates (annuity loan). This product is still offered today, where banks require a down payment if the borrower's financial situation doesn't allow them to borrow the full amount. Given the nature of full repayment, these loans typically tend to last longer to stretch the amortization over the monthly installments. With the introduction of leasing in the market, banks have reacted and offered the balloon loan, which is characterized by a last large installment (the balloon). Similar to a lease, the balloon is based on the residual value of the vehicle and is set in a way to not financially stress the lender, hence typically below the actual residual value the lender would achieve when selling the vehicle. Leasing, hence, has had a competitive edge in the market, with a lower monthly rate, as LeaseCos can be more competitive on the RV, hence need to amortize less within the contract period. Customers have not been keen on taking the residual value risk in a balloon credit, and so VW invented the “Auto-Credit” in the 1990s, a product known across markets as a multi-option credit/loan and in Germany as three-way-financing (“3-Wege-Finanzierung”). Customers here have the option to choose from three options at the end of the credit: either return the car (same as in a lease), refinance the remaining amount, or fully repay the credit. The residual value here is calculated based on the agreed maximum mileage (with extra costs for extra mileage), no damages on the vehicle, and age-appropriate use. (ADAC 2022; Wallner 2023).

Leasing can be viewed as a natural evolution of financing customers, as customers tend to seek lower rates, where customers trade off the right to own the vehicle at the end of the contract and still get exclusive access to the vehicle for the agreed time. This has been proven in data samples, which show that customers choose leasing to upgrade their vehicle while paying the same monthly rate, or to reduce the monthly financial burden (Mannering, Winston, and Starkey 2002, 155, 161).

In Germany, two forms of leasing exist: residual value leasing (RV-Leasing), where customers can participate in the up-and-downside of the RV at the end of the contract, and Kilometer leasing (KM-Leasing), where customers agree on a set number of kilometers per year linked to the lease duration and the Dealer or OEM takes the vehicle buy-back. This creates a suboptimal situation, which incentivizes dealers to promote RV-Leasing with very low monthly rates, where customers could face a substantial RV risk at the end of the contract, to achieve the sale of the vehicle. Various consumer-oriented portals and organizations do not recommend this contract type, leading to a situation where the KM-Leasing is the dominant lease product, and RV-Leasing is only considered to be marginal (Joho 2017; Verbraucherzentrale Bayern e.V. 2021; Bauer 2022; ADAC 2023b).

The following table summarizes the options a customer can choose from, indicating the discussed parameters of down payment, contract duration, end of contract, and the residual value risk. (Table 1; Stenner 2012, 72)

Table 1. Comparison of different car financing options

	Car loan	Balloon loan	Multi-Options loan	Residual Value (RV) leasing	Kilometer (KM) Leasing
Down-payment	<i>Often required to lower the monthly installments</i>	<i>Optional</i>	<i>Optional</i>	<i>Optional</i>	<i>Not typical</i>
Contract Duration	<i>4-6 years</i>	<i>3-5 years</i>	<i>3-4 years</i>	<i>3-4 years</i>	<i>2-4 years</i>
End of Contract	-	<i>Large last installment (balloon)</i>	<i>3 Options: return vehicle, refinance, repay loan</i>	<i>Return of vehicle</i>	<i>Return of vehicle</i>
Residual Value Risk	-	<i>Customer</i>	<i>OEM/ Dealer</i>	<i>Customer</i>	<i>OEM/ Dealer</i>

CAR FINANCING INFLUENCING CAR SALES

OEMs invented car financing for vehicles in the 1920s with the main intention of promoting sales and making vehicles more affordable for their customers (Berger 2007, 182). With the high financing shares of today, the car financing industry has become a significant portion of many financial services companies' portfolios, next to other lending classes like houses or consumer credits (Diekmann 2009, 1). In addition to that, also Captives have become a key income source for OEM groups, where OEMs might be deficient in some years without their captives (Diekmann 2009, 3).

Industry experts assume that the impact of leasing and car loans/credit can be assumed as substantial and that it is likely that around 20% of vehicles wouldn't be sold if there wasn't an offer from Auto-Banks (Diez 2010, 20). This can also be explained by the structural benefit for auto retailers, as they are already at the point in time when they sell the car when the customers are likely to search for a new car (at the end of the contract) and have set up dedicated communication to follow-up for a new car cycle. This allowed dealers to increase customer loyalty, where it has been measured that customers who buy cars in cash tend to drive them longer, and the retention rate

increases by 20 percentage points in financing contracts (Schürmann 2010, 92–94). This becomes even more critical in the context of the switch towards BEVs, where customers show low brand loyalty by default, with only 18% (Köllner 2023).

Past research has also argued that leasing does not necessarily create higher affordability, as the leasing share is not the highest for the specific model with the highest price. Still, leasing higher-priced vehicles could be even more attractive, as they hold their value particularly well (high RV), which leads to comparably low monthly rates in relation to their vehicle price (Desai and Purohit 1999, 42). Empirical studies have also shown that customers tend to select more extra options (with a paid premium) when they purchase vehicles in a lease contract, as well as accept lower rebates (Lorenz 2001, 88).

CONCLUSION

Car financing is not only relevant for selling new cars by dealers and OEMs but also has grown over the years towards a substantial industry, which saved OEM groups in some years when they had challenges with their profit margins. With high shares of above 80% in the German retail market, car financing is enabling private customers to purchase vehicles substantially and allowing dealers to manage customer loyalty with pre-set interactions. The relevance is expected to increase with the introduction of BEVs, where customers are generally more skeptical of the new technology and linked improvements over the next years, hence less keen on taking the residual value risk. This risk avoidance can already be measured in some customer surveys, which show a higher share of leasing for EVs (ADAC 2023a).

Concluding on the financial product, it can be argued that credit/loan-based products are expected to decrease to the benefit of leasing, or the multi-option loans, if it can be made competitive enough in terms of the monthly rate. This is important to understand for financial services players, as the products might require different licenses to offer a financial lease than an operating lease (BaFin 2021).

Several studies have shown that customers think in monthly rates, which changes the general perception of extras, as they become marginal (“a few Euros per month”). In addition to that, customers start to optimize their monthly rates, which provides relevant insights for offer-makers (Dealers, OEMs, Captives, Banks) to either provide attractive up-sell options or become cheaper for the same vehicle, which could be done via a lower cost-to-income ratio (lower OPEX) and maximally digital operations.

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ЗНАЧЕНИЕ НА ФИНАНСИРАНЕТО НА АВТОМОБИЛИ В ГЕРМАНИЯ ЗА ЧАСТНИ КЛИЕНТИ

Резюме: Финансирането на автомобили е опция при продажбата им, която позволява на клиентите да финансират покупката си, като им дава изключителен достъп до автомобила, до изплащането на кредита или до връщането на автомобила. Клиентите могат да закупят автомобил чрез (електронен) паричен превод или чрез средство за финансиране. Продуктите за финансиране на автомобили се класифицират на заеми за автомобили с различни варианти и лизинг, при който клиентите връщат автомобила в края на лизинговия договор. Икономическите показатели на финансовите продукти са сходни и се основават на продължителността на договора, лихвения процент и очакваната остатъчна стойност, която се определя от изминатия пробег и времето. В настоящата статия се разглежда динамиката на финансирането на нови автомобили при продажба на дребно и значението ѝ за германския пазар.

Ключови думи: финансиране на автомобили, продажби на автомобили, Германия, търговия на дребно, кредит, лизинг, абонамент, продажба в брой

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