

# Red & Black Auto Germany 6 UG

## Auto ABS – Germany

### New issue rating report



Scope  
Ratings

## Ratings

Series	Rating	Notional (EURm)	Notional (% assets)	CE <sup>a</sup> (% assets)	Coupon	Final maturity
Class A	AAA <sub>SF</sub>	930.0	93.0%	7.0%	1M-EURIBOR + 0.70%	15 Oct 2028
Class B	AA <sub>-SF</sub>	40.0	4.0%	3.0%	1M-EURIBOR + 0.90%	15 Oct 2028
Class C	BBB <sub>+SF</sub>	15.0	1.5%	1.5%	1M-EURIBOR + 1.40%	15 Oct 2028
Class D	BB <sub>+SF</sub>	10.0	1.0%	0.5%	1M-EURIBOR + 2.25%	15 Oct 2028
Class E	Not rated	5.0	0.5%	-	-	15 Oct 2028
Total		1000.0				

Scope's quantitative analysis is based on the portfolio, cut-off date October 2019, subsequent updates, and the prospectus provided by the arranger. Scope's Structured Finance Ratings constitute an opinion about relative credit risks and reflect the expected loss associated with the payments contractually promised by an instrument on a particular payment date or by its legal maturity. See Scope's website for the [SF Rating Definitions](#).

<sup>a</sup> credit enhancement reflects subordination only.

## Transaction details

Issuer	Red & Black Auto Germany 6 UG
Originator	Bank Deutsches Kraftfahrzeuggewerbe GmbH
Servicer	Bank Deutsches Kraftfahrzeuggewerbe GmbH
Closing date	21 November 2019
Payment frequency	Monthly, 15th day of each month

The transaction is a true-sale securitisation of a EUR 1,000.0m portfolio of auto loans, granted to consumers and entrepreneurs in Germany by Bank Deutsches Kraftfahrzeuggewerbe GmbH. Elavon Financial Services DAC is the issuer account bank as well as the paying agent.

## Rating rationale (summary)

The ratings reflects the legal and financial structure of the transaction; the credit quality of the collateral in the context of the macroeconomic conditions and long-term performance of auto ABS in Germany; the ability of the originator and servicer Bank Deutsches Kraftfahrzeuggewerbe GmbH (BDK); and the counterparty exposure to Elavon Financial Services DAC (EFS) as account bank and paying agent, and to interest rate swap counterparty Royal Bank of Canada (RBC).

Classes A to D are protected against potential losses from a moderately-seasoned receivables portfolio via credit enhancement from subordination of 7.0%, 3.0%, 1.5% and 0.5% respectively. The notes will start to amortise sequentially, will switch to pro-rata (between Class A, B, C & D) once sufficient class A credit enhancement is built, and would switch back to sequential upon poor portfolio performance. The notes also benefit from significant excess spread of at least 1.4%<sup>1</sup> per annum at closing which is available to cover periodic payment shortfalls. Liquidity is further supported by a fully funded liquidity reserve, whose remaining balance can also cover note losses at transaction termination. Interest rate swaps with RBC for the respective floating-rate tranches prevent erosion of excess spread via the fixed-floating asset-liability mismatch.

The transaction benefits from the consistent and proven business model of BDK, an experienced auto loan originator with a particular focus on used-car financing. BDK's status as non-captive results in positive obligor selection, as the bank does not have to support the sales of the respective manufacturer.

<sup>1</sup> This is inclusive of stress applied by Scope; unstressed excess spread is about 2.7% at closing.

## Analytical team

Sebastian Dietzsch  
+49 30 27891-252  
[s.dietzsch@scoperatings.com](mailto:s.dietzsch@scoperatings.com)

Shashank Thakur  
+49 30 27891-336  
[s.thakur@scoperatings.com](mailto:s.thakur@scoperatings.com)

David Bergman  
+39 02 30315-838  
[d.bergman@scoperatings.com](mailto:d.bergman@scoperatings.com)

## Investor Outreach

Michael John MacKenzie  
+44 203 71449-81  
[m.mackenzie@scopegroup.com](mailto:m.mackenzie@scopegroup.com)

## Related Research

General Structured Finance  
Rating Methodology,  
December 2018

Methodology for Counterparty  
Risk in Structured Finance, July  
2019

Consumer and Auto ABS  
Rating Methodology,  
March 2019

## Scope Ratings GmbH

Lennéstraße 5  
10785 Berlin

Tel. +49 30 27891-0  
Fax +49 30 27891-100

[info@scoperatings.com](mailto:info@scoperatings.com)  
[www.scoperatings.com](http://www.scoperatings.com)



Bloomberg: SCOP

Asset performance will benefit from the strong and stable German economy. The robust labour market, favourable financing conditions and rising productivity signify a benign macroeconomic environment. Further, Germany has high-quality public institutions which explain the long history of economic stability behind its good credit performance.

The ratings reflect the counterparty credit risk in the transaction and its mitigants. Servicer commingling exposure to BDK is mitigated through a guarantee by its parent Société Générale (SocGen) to fund an amortising commingling reserve upon either a loss by SocGen of its investment grade credit profile or BDK's insolvency.

The exposure to RBC as interest rate swap provider is limited, as we expect the issuer to be a net payer under the swap over the transaction's life. The transaction's counterparty exposure to EFS is mitigated by i) the limited time exposure through monthly payments; and ii) the high credit quality of its parent, US Bank. We analysed the counterparty risk related to BDK, SocGen, EFS and RBC based on public information. The counterparty roles are subject to replacement mechanisms based on external ratings.

## Rating drivers and mitigants

### Positive rating drivers

**Credit enhancement.** The notes benefit from significant credit enhancement from subordination, significant excess spread and a 0.5% (of rated notes) amortising liquidity reserve. The latter also provides loss coverage in a liquidation scenario. Excess spread is well protected through portfolio interest covenants and an interest rate swap.

**Non-captive originator.** BDK has been in the German car financing business since 2000, with a focus on used-car financing. The bank benefits from its non-captive status, allowing to be selective with customers, while providing flexible financing solutions. The integration into the SocGen group adds to the expertise and process efficiency.

The consistent origination focus is evident in the limited volatility shown in available credit performance data.

**Historical performance.** BDK's loan book has shown solid historic performance, even through the financial crisis. Static loan-default vintage data for a period from 2004 to Q1 2019 shows an average default rate of 2.0% for consumer loans and 5.5% for entrepreneur loans with moderate volatility. This also reflects the bank's selective origination criteria.

**German economic environment.** The healthy economic environment in Germany stabilises the performance of consumer loans, with low unemployment and solid economic growth, reflected in stable and rising private household income. The potential German economic slow-down is also unlikely to have a great impact given the generally short-term nature of the auto loans backing this transaction.

### Upside rating-change drivers

**Increased credit enhancement** from deleveraging, accompanied by good performance, may strengthen the rating.

**A quick move to sequential amortisation** from pro-rata may result in upgrades of the more senior notes.

### Negative rating drivers and mitigants

**Pro-rata amortisation.** The pro-rata amortisation mechanism exposes the senior tranches to back-loaded default rate scenarios. Triggers on cumulative net losses and the full debit of the class E principal deficiency ledger protect the senior tranches from excessive release of credit enhancement.

**Limited cash reserve.** The cash-reserve is small and generally just available to cover liquidity shortfalls. The use of swaps, a committed commingling reserve (reflecting expected collections under a 15% prepayment scenario) and high portfolio excess spread also support the liquidity of the structure.

**High prepayments.** Historic data indicates high prepayments, which may result in an erosion of excess spread and a rapid reduction of the available reserve fund. Moreover, the quick repayment of the portfolio accelerates the release of credit enhancement in case the pro-rata amortisation is activated. Protective mechanisms in case of adverse performance also mitigate this.

### Downside rating-change drivers

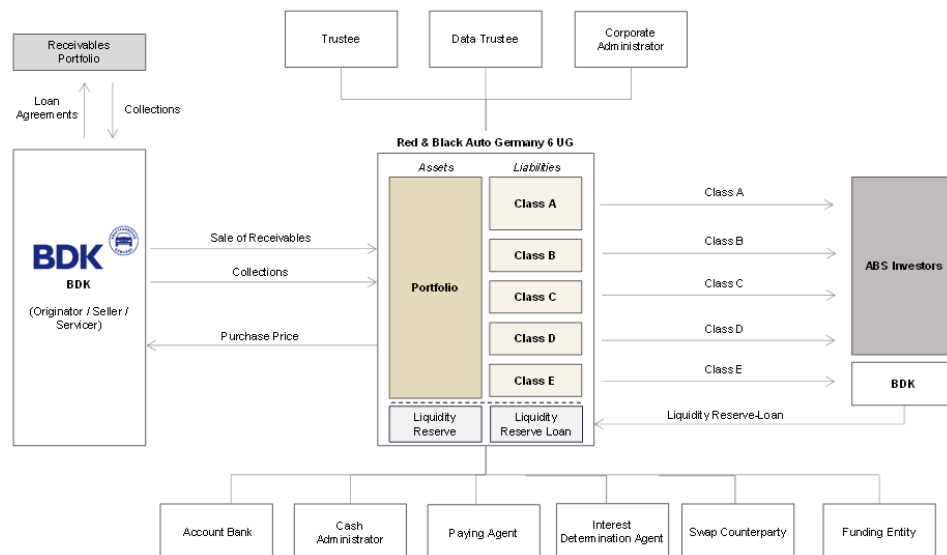
**Worse-than-expected** asset performance could negatively impact the ratings.

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## 1. Transaction summary

**Figure 1: Simplified transaction diagram**



Source: Transaction documents and Scope.

Red & Black Auto Germany 6 UG is BDK's sixth auto ABS transaction. The transaction consists of the securitisation of a EUR 1,000.0m portfolio of 88,492 fully amortising loans for vehicle acquisitions, which BDK originated and granted to German consumers as well as entrepreneurs.

The transaction features a pro-rata amortisation mechanism among tranches A through D, subject to certain performance conditions and tranche A credit enhancement target being met. Otherwise, liabilities amortise fully sequentially.

Of the five classes of notes being issued, we assigned ratings to classes A through D, leaving class E unrated. The transaction has been closed on 21 November 2019 and the legal final maturity is on 15 October 2028.

## 2. The auto loan environment in Germany

We expect the resilient German economy to reflect positively on the stability of household incomes and ensure a certain ability to service debt.

Despite a potential economic slow-down, we expect Germany will not enter a recession and its labour market will remain robust. Companies can also utilise flexible tools to manage labour costs in times of excess production capacity; these proved efficient following the 2007 financial crisis.

Germany also has high-quality public institutions which explain the long history of economic stability behind its good credit performance. The combination of the government's favourable budgetary situation, the current low-interest-rate environment, and an estimated investment gap of about 5% of GDP provide reasonable conditions for fiscal stimulus. Such tools could offset adverse impacts from the increasingly protectionist measures seen worldwide and thereby stabilise the economy at the current level.

The greatest challenges for the German economy, and thus for the borrowers in the portfolio, reside in the political area. Recent political developments may impede the

government from executing certain measures, which may affect the timely and counter-cyclical re-orientation of Germany's fiscal policy.

### 3. Asset analysis

#### 3.1. Securitised assets

The portfolio has positive selection compared to BDK's total auto loan book. The portfolio comprises two loan products, amortising and balloon loans, for the purpose of vehicle acquisition, which are representative of BDK's auto loan book. Eligibility criteria only allows performing loans with capped original loan-to-value ratio at closing.

The current loan portfolio is moderately seasoned (1.1 years) with a low weighted average remaining time to maturity of 3.8 years. The loans in the initial portfolio were originated between 2013 and 2019, with more than 82% originated from 2018 onwards. Loans transferred to the portfolio have at least one instalment paid and will mature at the latest in 2026 which is also the scheduled maturity date for the transaction.

The loans have a high weighted-average original loan-to-value of 88.8%; however, this will reduce quickly due to the amortising nature of the assets. All loans pay a fixed interest rate yielding a weighted average of 3.55% for the whole portfolio, with minimum of 1.85%. Additionally, the pool's loans apply either full amortisation (40.8%) or balloon amortisation (59.2%). The latter reflects adversely on default and recovery rates and is captured in our default and recovery assumptions.

The loans are granted for the acquisition of new (19.3%), used (40.1%), and newly used (40.6%) cars, by both entrepreneurs (11.2%) and consumers (88.8%).

The asset analysis was conducted for two portfolio segments (consumers and entrepreneurs). However, consolidated numbers are presented below in Figure 2.

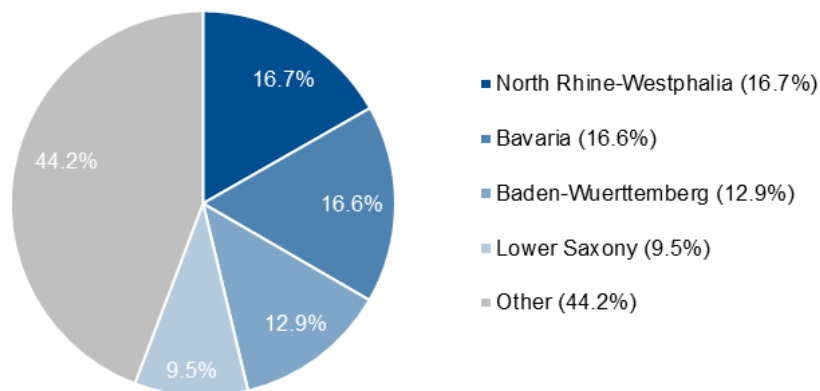
**Figure 2: Portfolio segment overview**

	Portfolio
Loan purpose	consumers/entrepreneurs new/used/newly-used
Outstanding amount (EUR)	999,999,999.97
Original amount (EUR)	1,257,235,709.31
Number of loan contracts	88,492
Number of debtors	87,749
Average balance per loan contract (EUR)	11,300.46
Average balance per debtor (EUR)	11,396.14
Outstanding balloon amount (in % of outstanding amount)	28.0%
Weighted average original loan-to-value ratio	88.8%
Loan type (amortizing / balloon)	40.8% / 59.2%
Client type (consumers / entrepreneurs)	88.8% / 11.2%
Vehicle type (new / newly-used / used)	19.3% / 40.6% / 40.1%
Weighted average original term (months)	59.1
Weighted average remaining term (months)	45.6
Weighted average seasoning (months)	13.5
Weighted average nominal interest rate	3.6%

### 3.1.1. Regional distribution

The four largest regional exposures represent 55.8% of the current portfolio. This is credit-positive as these four regions contribute significantly to German GDP.

**Figure 3: Regional distribution of the initial portfolio**

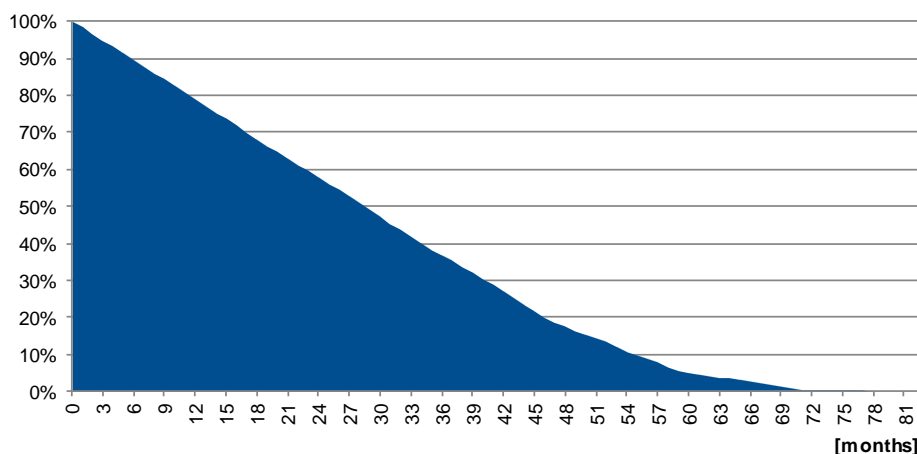


Portfolio has a limited exposure to potential macro-economic slowdown

### 3.2. Amortisation profile

The quick amortisation of the static portfolio (Figure 4) limits adverse impacts stemming from a deteriorating macroeconomy, which we only expect to occur over a longer period. The portfolio has a weighted average life of 2.5 years, which can even reduce given the historically high prepayments.

**Figure 4: Expected portfolio amortisation profile (0% prepayment, 0% defaults)**



### 3.3. Portfolio modelling assumptions

**Figure 5: Portfolio modelling inputs**

	Portfolio	Consumers	Entrepreneurs
Default rate (long-term)	3.0%	2.5%	6.0%
Coefficient of variation (-long-term)	39.3%	40%	35%
Default rate (point-in-time)	1.9%	1.5%	4.5%
Coefficient of variation (point-in-time)	33.6%	35%	25%
Recovery rate (base case)	51.0%	50%	57%
Recovery rate AAA (40% haircut)	30.6%	30%	34%
Prepayments (high)	15.0%	15%	15%
Prepayments (low)	0.0%	0%	0%

Analysis incorporates rating-conditional recovery assumptions

Notes tested against the most conservative CPR assumption of 0%

Fully funded reserve fund provides 0.15% credit enhancement

Structure benefits from effective performance triggers that manage the notes' amortisation schedule

### 3.3.1. Default rate analysis on portfolio

We calibrated a point-in-time default rate and recovery assumptions based on 2012 to Q1 2019 vintage data for the two client types.<sup>2</sup> A similar analysis was performed on 2004-18 data to capture a long-term view. The vintage data reflects the performance of BDK's auto loan book and captures the mild deterioration in asset performance following the global financial crisis, whose impact was much more severe for similar loan products from other originators.

### 3.3.2. Recovery rate

We analysed BDK's recovery vintage data considering accumulated recoveries of up to three years after a default to derive the base case recovery rates. We estimate the recovery lag at 30 months.

We have modelled the portfolio using fixed assumptions for recovery rates (derived from vintage data analysis), which were then stressed with haircuts based on the target rating of the notes (see Figure 5). This implies a 40% haircut for a AAA-rating scenario.

### 3.3.3. Constant prepayment rate (CPR)

We tested the notes against the most conservative CPR assumption of 0%. We also tested a stressed high CPR assumption of 15%, to determine the structure's reliance on excess spread. BDK did not provide product-specific prepayment information.

## 4. Financial structure

### 4.1. Capital structure

Five classes of notes are issued. The proceeds from the notes' issuance are used to purchase the portfolio of assets. BDK also provides a EUR 5.0m liquidity reserve, to the benefit of classes A through D.

Payments for the most senior tranche generally have priority. However, mezzanine tranches join the amortisation if class A credit enhancement reaches 11% given the required portfolio performance. This is mitigated by sound protective mechanisms, which protect the more senior tranche from excessive credit enhancement release and reinstate sequential amortisation.

In particular, the cumulative net loss trigger at 1.1% of the initial balance and the class E principal-deficiency-ledger trigger (0.5% of the initial portfolio balance) have proved effective in front-loaded default timing scenarios.

### 4.2. Reserve fund (RF)

Classes A through D benefit from an amortising liquidity reserve, at 0.5% of the rated note's balances, floored at 0.15% of these notes' initial balances.

The RF can cover the senior notes interest, costs and can be used to cover losses at transaction termination.

This reserve is sufficient to cover rated notes' interest and senior fees for up to eight months considering one-month-Euribor at 0%.

### 4.3. Amortisation and provisioning

The combination of sensitive triggers for sequential amortisation, a reserve fund and significant excess spread are effective at protecting the rated notes.

Amortisation starts as sequential and changes to pro-rata upon class A credit enhancement reaching 11%, subject to i) the class E principal-deficiency-ledger being not fully debited and ii) cumulative net losses being below 1.1% of the portfolio initial balance.

<sup>2</sup> BDK delivered data from 2012 to Q1 2019 for both client segments.

In the event of either i) or ii), amortisation either remains sequential, or reverts to sequential until transaction termination. Once the amortisation reverts to sequential there is no possibility to switch back to pro-rata again.

If performance-related triggers are not activated, the structure changes to sequential upon the outstanding portfolio balance falling below 10% of the initial balance.

The transaction's default definition results in an early capture of excess spread compared to other securitisations. Defaults are defined as loans more than 120 days in arrears for consumers and 52 days for entrepreneurs, or loans subjectively considered unrecoverable by the servicer.

The combined priority of payments results in accelerated amortisation, using excess spread to cover portfolio defaults and the reserve fund to repay the notes at transaction termination. These mechanisms are captured in the modelling and reflected in the ratings.

#### 4.4. Priority of payments

The combined priority of payments materially protects against payment interruption. Principal collections from the assets can be used to pay timely interest on the notes. Further, only a few days' worth of collections suffices to pay notes' interest and other more senior items, even in the unlikely event of a servicer disruption. The combined priority of payments also allows credit enhancement to cover losses from negative carry (Figure 6).

Portfolio covenants and priority of payments ensure notes' collateralisation

Combined priority of payments is the main protection against payment interruption

Figure 6: Priority of payments and available funds

Pre-enforcement priority of payments			Post-enforcement priority of payments
<b>Available funds</b> Proceeds from interest, recoveries, net swap receipts, reserve fund, others	<b>Available funds</b> proceeds from principal payments, others		<b>Available funds</b> All issuer funds, including proceeds from liquidation of assets and reserve.
<b>Interest</b>	<b>Principal – sequential</b> 1. <b>Cumulative net loss &gt; 1.1% (or)</b> 2. <b>Full debit of principal-deficiency-ledger for class E (or)</b> 3. <b>Outstanding portfolio balance &lt; 10%</b>	<b>Principal – pro-rata</b> 1. <b>Credit Enhancement class A &gt; 11%</b>	
1) Expenses (ordinary and extraordinary, including servicer fees) 2) Class A interest 3) Sequential Class B-D interest, subjected to PDL criteria 4) Reserve fund replenishment 5) Sequential principal-deficiency-ledger A-E 6) Subordinated items	1) Principal addition amount 2) Class A principal 3) Class B principal 4) Class C principal 5) Class D principal 6) Class E principal 7) Leftover interest priority of payments	1) Principal additional amount 2) i) Class A principal ii) Class B principal iii) Class C principal iv) Class D principal 3) Class E principal	1) Expenses (ordinary and extraordinary, including servicer fees and liquidation expenses) 2) Class A - interest and principal 3) Class B - interest and principal 4) Class C - interest and principal 5) Class D - interest and principal 6) Class E - interest and principal 7) Subordinated items

### Fully hedged interest rate risk

#### 4.5. Fully hedged interest rate risk

Swaps are used to fully hedge the asset-liability mismatch in interest rates. The assets pay a fixed rate while liabilities pay a floating rate referencing one-month-Euribor.

The structure has significant excess spread. Our analysis reflects 1.4% of excess spread annually, which represents a stress compared to the 2.7% level available at transaction close.

Our excess spread calculations assume stressed senior costs of 1.0%.

### Account represents commingling exposure to Elavon

#### 4.6. Accounts

The issuer account collects all asset proceeds and holds the reserve fund.

The account represents a commingling risk exposure to EFS as the account bank (see 'Counterparty risk' on page 11). Potential negative carry is covered by available excess spread and credit enhancement.

### BDK's functions, systems, processes and staff are adequate and meet European banking standards

## 5. Originator and seller

BDK is an experienced originator of auto loans in Germany. The bank is ranked second in the non-captive car-financing market and is focused on car dealers for retail car loans and leasing. Apart from leasing, BDK defends its market share by providing a wide variety of loans; however only amortising and balloon loans are eligible for the transaction portfolio.

BDK mostly finances private customers, with a focus on used-car finance. Lending to private customers is stable at about 85%, which is also reflected in the transaction portfolio. The remainder comprises lending to corporate clients.

The underwriting process is highly automated but involves manual intervention when required. This may even result in loan application rejections. The bank is selective as suggested by its application rejection rates, also reflecting its non-captive status because it is under no pressure to support a manufacturer's sales.

BDK functions, systems, processes and staff are adequate for efficient lending in the German auto loan market and meet European banking standards, further enhanced by BDK's membership in the SocGen group. In July 2019, we met with BDK executives in Hamburg to understand more about the underwriting and servicing aspects that are relevant to the analysis.

BDK's interests are aligned with those of the noteholders, through a significant subordinate interest in the transaction. The bank provides the reserve fund, is entitled to all idle excess spread from the portfolio and holds the class E notes.

#### 5.1. Sanctioning and underwriting

BDK has a very standardised lending process. The first step of every application is the automated credit decision tool, that results in either approval or rejection. The overall acceptance rate from the tool is 55.9%.

Most rejections by the automatic tool are scrutinised by an officer before final decision is made. A new scoring tool is expected to reduce such manual overrides, currently at around 29% of all non-automatically approved applications.

BDK regularly reviews origination processes to ensure originated volumes remain within set strategic limits and approved loans comply with lending policies.

#### 5.2. Servicing and recovery

BDK's loan servicing and management of non-performing loans is adequate. The approach is reasonably proactive and diligent, with actions initiated on the seventh day

### Adequate and proactive servicing and recovery processes



after a payment is missed. These actions start with an interaction with the obligor and end with the collection of the car if the case is not cured before a certain threshold, i.e. 120-days-past-due for private clients and 52-days-past-due for commercial clients.

The management of overdue debt follows a three-stage process. The first stage consists of a reminder to the obligor (re-collection), sent seven days after the payment date to monitor the situation. The second stage (pre-contentious), starts after 37 days overdue for private customers, and 22 for commercial, upon which the bank sends a second reminder to get the obligor performing again. The final stage (collection) begins after 120, and 52 days overdue, respectively, upon which the bank terminates the contract and starts enforcement.

Recovery processes target the obligor and the vehicle and involve internal and external collectors. The bank uses all ways of monetising collected titles, including portfolio sales and auctions of repossessed vehicles.

BDK's servicing and recovery strategy is consistent with its business model, which focuses on handling high volumes efficiently.

## 6. Quantitative analysis

The ratings were based on our cash flow analysis. This result is supported by solid macroeconomic conditions and the protective credit enhancement mechanisms available for each note class.

We applied our large homogenous portfolio approximation approach (LHPA) when modelling the highly granular collateral pool. Key assumptions derived were then applied to the cash flow analysis of the transaction over the amortisation period. We modelled the transaction based on the two distinct sub-segments in the portfolio, consumers and entrepreneurs.

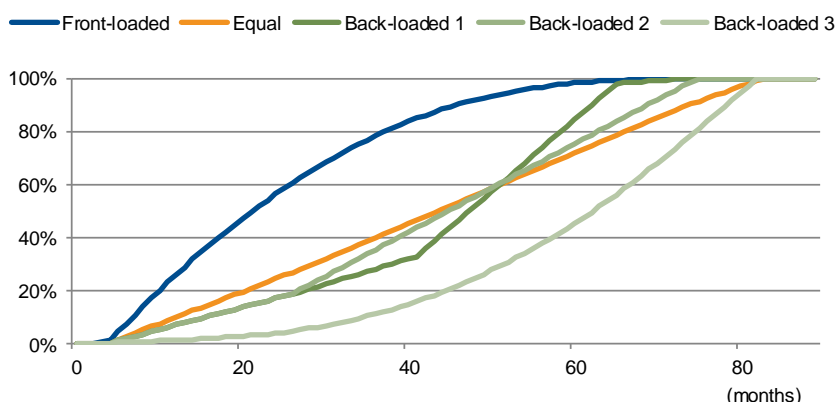
Scope used a bespoke cash flow model to analyse this transaction

We analysed the transaction with a cash flow model, combined with the portfolio default distribution (inverse Gaussian) to calculate the probability-weighted loss for the notes. The cash flow model also produces the expected weighted average life for the notes.

We considered a front-loaded default-timing term structure under the base case. Additionally, the notes showed significant volatility under more back-loaded default scenarios, as these allow the release of more credit enhancement for the senior notes, in the form of absolute subordination, as well as excess spread.

The cumulative default-timing assumptions are shown on Figure 7 and represent the assumed default timings for the portfolio under different scenarios. The assumptions reflect the default definitions in the transaction, i.e. 120+ days-past-due for private clients and 52+ days-past-due for commercial clients.

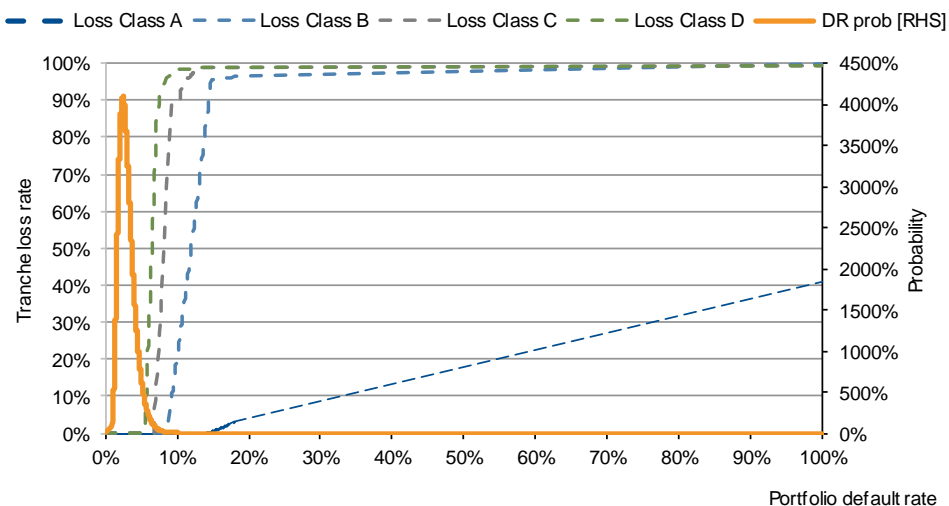
**Figure 7: portfolio default-timing assumptions and alternative timing scenarios**



Front-loaded default timing considered

Figure 8 shows the losses of the different classes of notes, considering the respective rating-conditional recovery rate at all portfolio default rates. The chart shows how credit enhancement and excess spread protect the notes, as well as recovery proceeds in case of default.

**Figure 8: Cash flow model results for base case mean-default rate and coefficient of variation; rating case recovery rates**



Note: The probabilities displayed on the right-hand side axis has to be considered in the context of the calculation of the probability density

## 7. Rating stability

### 7.1. Rating sensitivity

We tested the resilience of the rating against deviations of the main input parameters: the mean-default rate and the recovery rate. This analysis has the sole purpose of illustrating the sensitivity of the rating to input assumptions and is not indicative of expected or likely scenarios.

The following shows how the quantitative results change when the portfolio's expected mean default rate is increased by 50% and the portfolio's expected recovery rate is reduced by 50%, respectively:

- Class A: sensitivity to mean default rate + 50%, zero notches; sensitivity to recovery rates – 50%, zero notches;
- Class B: sensitivity to mean default rate + 50%, two notches; sensitivity to recovery rates – 50%, one notch;
- Class C: sensitivity to mean default rate + 50%, two notches; sensitivity to recovery rates – 50%, one notch;

- Class D: sensitivity to mean default rate + 50%, zero notches; sensitivity to recovery rates – 50%, zero notches;

Interest rate stresses have no impact on the notes because interest rate risk is perfectly hedged.

We found significant volatility for back-loaded default timing scenarios; this is reflected in the assigned ratings.

## 8. Sovereign risk

Sovereign risk does not limit any of the ratings. The risks of an institutional framework meltdown, legal insecurity or currency convertibility risk is considered extremely unlikely, especially in the context of the expected life of the rated notes.

The rating analysis factors in the resilient economic outlook for Germany, which reflects our expectation of slowing, but ongoing economic growth and a stable low unemployment rate. The biggest challenge faced by the German economy relates to demographics: an ageing population, insufficient population growth and the growing lack of skilled workers.

## 9. Counterparty risk

The counterparty risk of the transaction supports the highest ratings. None of the counterparty exposures are excessive, i.e. if counterparty risk crystallises, a downgrade is still limited to six notches.

### 9.1. Operational risk from servicer

Operational risk from the servicer role is well mitigated in this transaction. In the unlikely event of a BDK's replacement as portfolio servicer, we expect a quick transition to another servicer, as the loan products and data systems are relatively standardised.

SocGen, the parent, is the first and second layer of protection for the transaction against servicer disruption. First, its credit quality supports BDK's credit risk profile. Secondly, should BDK default, SocGen can facilitate the replacement. Wilmington Trust Frankfurt, as back-up servicer facilitator, also supports the replacement in case needed.

Commingling risk from the exposure to BDK as servicer is well mitigated through a guarantee from its parent, to fund a commingling reserve upon either BDK's insolvency or a loss by the parent of its investment grade rating. The commingling reserve is dynamic, and its size reflects contractual portfolio collections of interest and principal, accounting for 15% of prepayments.

### 9.2. Commingling risk from account bank and paying agent

The class A notes have a short expected weighted average life of just 1.7 years under 15% CPR.<sup>3</sup> EFS's high credit quality makes the risk of commingling losses sufficiently remote as to be immaterial for the notes.

The risk is further mitigated through a replacement of the account bank role upon loss of investment grade.

We assessed the credit quality of Elavon using public information as well as public ratings of US bank, Elavon's parent company.

### 9.3. Exposure to the swap counterparty

We consider that counterparty risk associated with the swap counterparty, RBC, is sufficiently remote because i) we generally expect the issuer to be a net-payer under the

Sovereign risk does not limit the transaction's ratings

Servicer replacement unlikely

Commingling risk is sufficiently remote as to pose an immaterial risk for the notes

<sup>3</sup> This expected weighted-average life results from our cash-flow modelling and is the expected value, reflecting the probability-weighted average of the instrument-weighted-average lives across all default rate scenarios considered in our analysis.

Set-off risk from the originator is reasonably remote

Loan amendments need issuer consent

Tax efficient set-up; bankruptcy remote SPV

Scope analysts are available to discuss all the details surrounding the rating analysis

swap contracts; and ii) the credit quality of the swap counterparty is high as indicated by its public ratings.

Standard collateralisation and replacement mechanisms further mitigate the counterparty risk for the transaction

#### 9.4. Set-off risk from originator

BDK's credit quality, supported by its parent SocGen, makes set-off sufficiently remote, in particular for the class A notes, which only have a short 1.7-year<sup>3</sup> expected life.

Additionally, as BDK does not provide customer deposits, set-off risk is limited to linked insurance contracts only.

## 10. Legal structure

### 10.1. Legal framework

This securitisation is generally governed by German law and represents the true sale of the assets to a bankruptcy-remote vehicle without legal personality, represented by Wilmington Trust SP Services (Frankfurt) GmbH, the corporate service provider. The SPV is essentially governed by the terms in the documentation. Through a simple majority, noteholders can amend terms and conditions that affect only a particular class of notes and have no negative impact on the other classes. If a note class faces a potential disadvantage, the affected noteholders must provide consent before any amendments are made.

The contracts with international service providers are governed by either English or Irish law.

### 10.2. Restructurings

The servicer may only amend the terms of a portfolio loan with the issuer's consent.

### Use of legal and tax opinions

We reviewed the legal opinions produced for the issuer. These provide comfort on the issuer's legal structure and support our general legal analytical assumptions.

The tax opinion produced for the issuer indicate that the transaction has a tax-efficient structure, i.e. no taxes apply, except for VAT in the context of contracted services, which remain a cost for the issuer.

## 11. Monitoring

We will monitor this transaction based on performance reports produced for the issuer and other available information. The ratings will be monitored continuously and reviewed at least once a year, or earlier if warranted by events.

Scope analysts are available to discuss all the details surrounding the rating analysis, the risks to which this transaction is exposed and the ongoing monitoring of the transaction.

## 12. Applied methodology and data adequacy

For the analysis of this transaction Scope applied its Auto ABS Rating Methodology and its Methodology for Counterparty Risk in Structured Finance, both available on our website [www.scoperatings.com](http://www.scoperatings.com).

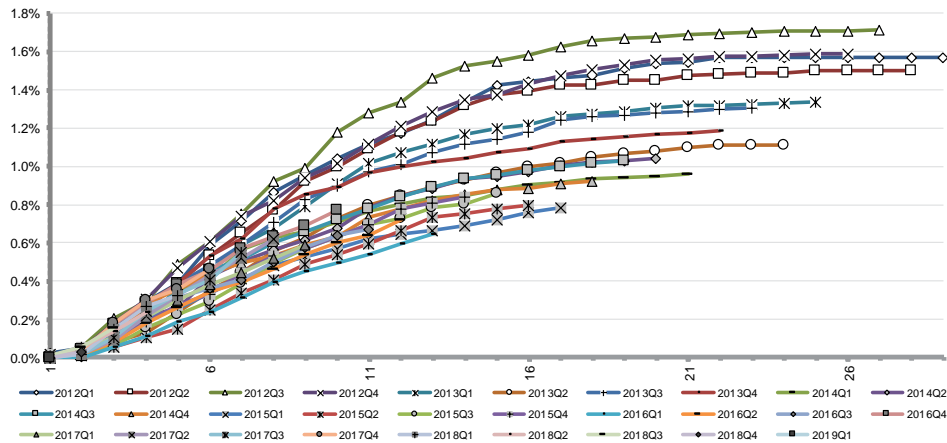
BDK provided us with default and recovery data, segmented by quarterly vintage of origination, referring to a 'Write-off' default definition. The default rate data covers a period from 2012 to Q1 2019 and is generally very granular. The recovery data also covers a period from 2012 to Q1 2019, referring to all recoveries during that period. We integrated this with public data to have a long-term view on the performance of assets.

### I. Vintage data provided by the originator

BDK provided write-off and recovery performance data for the two portfolio segments covering the period from Q1 2012 to Q1 2019. We considered the information in our analysis as the foundation for the calibration of point-in-time default rates, coefficient of variation and base case recovery rates.

Vintage data is granular and representative for the portfolio.

**Figure 9: Cumulative default rates – consumers**



**Figure 10: Cumulative default rates – entrepreneurs**

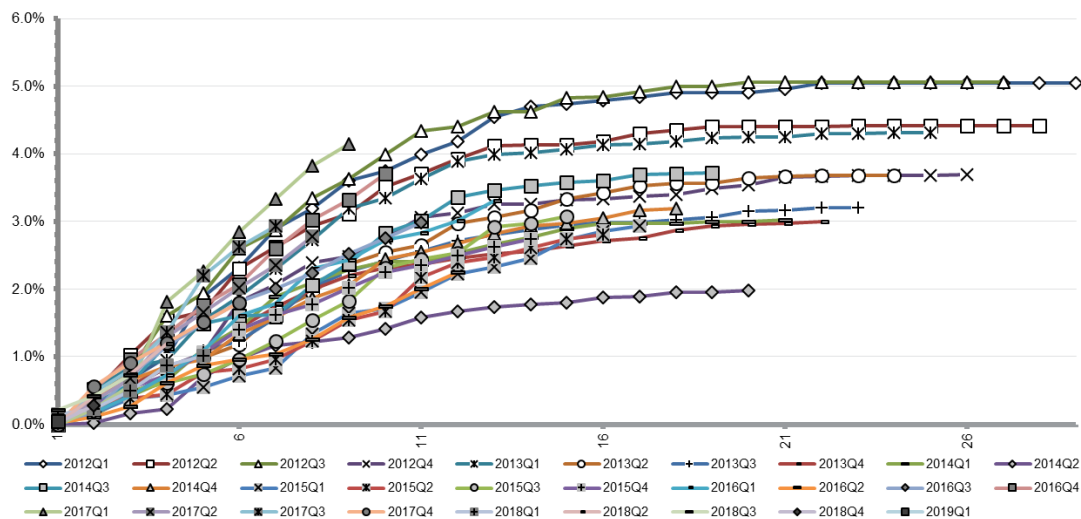


Figure 11: Cumulative recovery rates – consumers

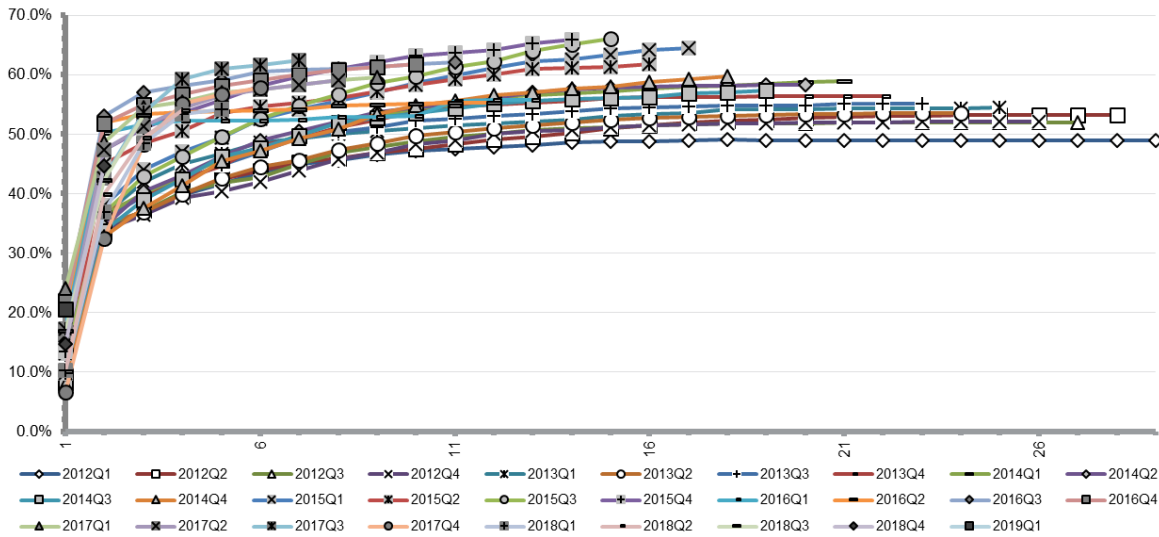
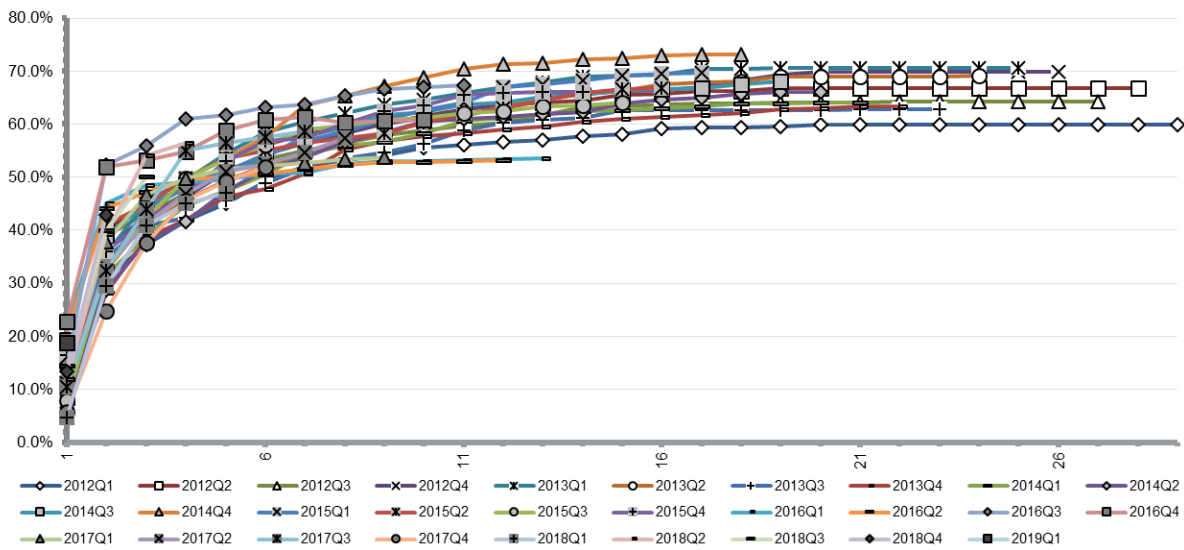


Figure 12: Cumulative recovery rates – entrepreneurs





## Scope Ratings GmbH

### Headquarters Berlin

Lennéstraße 5  
D-10785 Berlin

Phone +49 30 27891-0

### London

2 Angel Square  
Suite 301  
UK-London EC1V 1NY

Phone +44 20 3457 0444

### Oslo

Haakon VII's gate 6  
N-0161 Oslo

Phone +47 21 62 31 42

### Frankfurt am Main

Neue Mainzer Straße 66-68  
D-60311 Frankfurt am Main

Phone +49 69 66 77 389-0

### Madrid

Edificio Torre Europa  
Paseo de la Castellana 95  
E-28046 Madrid

Phone +34 914 186 973

### Paris

1 Cour du Havre  
F-75008 Paris

Phone +33 1 8288 5557

### Milan

Via Paleocapa 7  
IT-20121 Milan

Phone +39 02 30315 814

[info@scoperatings.com](mailto:info@scoperatings.com)  
[www.scoperatings.com](http://www.scoperatings.com)

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Scope Ratings GmbH, Lennéstraße 5, 10785 Berlin, District Court for Berlin (Charlottenburg) HRB 192993 B, Managing Directors: Torsten Hinrichs, Guillaume Jolivet.