Creditreform Structured Finance

VCL Multi-Compartment S.A., Compartment VCL 29

Creditreform Rating

Rating Object

VCL Multi-Compartment S.A., Compartment VCL 29

Closing Date:	November 25, 2019
Legal Final Maturity:	September 2025
Exchange:	Luxembourg Stock Exchange
Issuer:	VCL Multi-Compartment S.A., Compartment VCL 29
Issuer Type:	Luxembourg Special Purpose Vehicle
Arranger:	BNP Paribas
Asset Class :	Auto Lease Receivables

Rating Information

Assigned Ratings / Outlook:

Class A: **AAA$_{sf}$ / stable**

Class B: **AA-$_{sf}$ / stable**

Type:
Initial Rating,
New Issue Report

Rating Date:	November 21, 2019
Rating Renewal:	-
Rating Methodologies:	CRA “Auto ABS Securitizations” CRA “Rating Criteria and Definitions”

Class	Rating / Outlook	Amount (EUR)	Initial CE*	Index	Margin**	Final Maturity	ISIN
A	AAA$_{sf}$ / stable	941,000,000.00	5.90%	1m Euribor	+ 0.65%	September 2025	XS2057959954
B	AA-$_{sf}$ / stable	19,000,000.00	4.00%	1m Euribor	+ 0.78%	September 2025	XS2057983152
Sub. Loan	NR	32,008,116.51	0.80%	1m Euribor	+ 1.02%	September 2025	N/A
OC	-	8,000,000.00	-	-	-	-	-

* Initial Credit Enhancement for Class A notes consisting of (1) Class B subordination, (2) subordinated loan and (3) overcollateralization and for Class B notes consisting of (1) subordinated loan and (2) overcollateralization, see “Capital Structure” below. In addition, a cash reserve, initially amounting to 1.2% of the discounted receivables balance, provides credit enhancement to the Class A and B notes. ** The coupon interest is floored at zero.

Contents

Key Rating Findings 1
Transaction Structure 2
Operational Risk 8
Counterparty Risk..........................11
Credit and Portfolio Risk................13
Cashflow Analysis 18
Appendix 21

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Transaction Summary

The VCL Multi-Compartment S.A., Compartment VCL 29 transaction (“VCL 29”) is a securitization of a static pool of auto lease receivables originated in Germany. Volkswagen Leasing GmbH (“VWL”), acting as Seller and Servicer of these auto lease receivables, is a wholly owned subsidiary of Volkswagen Financial Services AG (“VWFS”). VWFS is a captive and 100% subsidiary of Volkswagen AG (“VWAG”). Creditreform Rating AG (“Creditreform Rating” or “CRA”) has assigned ratings to VCL 29 Class A and Class B notes. In addition to the issuance of the rated Class A and Class B notes, a Subordinated Loan will be granted to fund the purchase of auto lease receivables. A combination of Subordinated Loan, overcollateralization and a cash reserve will provide credit enhancement to the rated Class A and Class B notes.

The asset pool securitized by VCL 29 is a portfolio consisting of 107,487 lease contracts originated by VWL to retail and corporate customers. The non-revolving transaction is secured by new, used and demonstration vehicle lease receivables. The portfolio of auto lease receivables has a weighted average remaining term of approximately 32 months and a total volume of EUR 1,000,008,116.51.

Key Rating Findings

+ VCL 29 securitizes only the finance portion of the leases; residual values are not securitized by the Issuer
+ Strong macroeconomic fundamentals in Germany and strong German lease business should support VWFS's ABS strategy and future portfolio performance
+ Risks related to the Issuer are limited, the compartment structure being ring-fenced and with limited recourse to other creditors of the Issuer, including non-petition provisions

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+ Downgrade collateral and replacement provisions mitigate counterparty risk exposure w.r.t. the Swap Counterparty and Account Bank

- Legal documentation does not foresee a back-up servicer

- Potentially indirect negative impact of VWAG diesel emission manipulations on future (portfolio) recovery performance

Transaction Structure

Transaction Parties

Table 1: Transaction Parties

Role	Name
Issuer and Purchaser	VCL Multi-Compartment S.A., acting for and on behalf of its Compartment VCL 29, Luxembourg
Seller and Servicer	Volkswagen Leasing GmbH, Braunschweig
Security Trustee	Intertrust Trustees GmbH, Frankfurt am Main
Calculation Agent, Paying Agent & Interest Determination Agent	The Bank of New York Mellon, London Branch
Registrar	The Bank of New York Mellon SA/NV, Luxembourg Branch
Account Bank & Cash Administrator	The Bank of New York Mellon, Frankfurt Branch
Swap Counterparty	DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main
Subordinated Lender	Volkswagen Financial Services AG, Braunschweig
Arranger	BNP Paribas
Joint Lead Managers	BNP Paribas; Landesbank Baden-Württemberg, Stuttgart
Managers	DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main; Skandinaviska Enskilda Banken AB (publ), Stockholm; UniCredit Bank AG, Munich
Corporate Service Provider	Circumference FS (Luxembourg) S.A., Luxembourg
Data Protection Trustee	Data Custody Agent Services B.V., Amsterdam

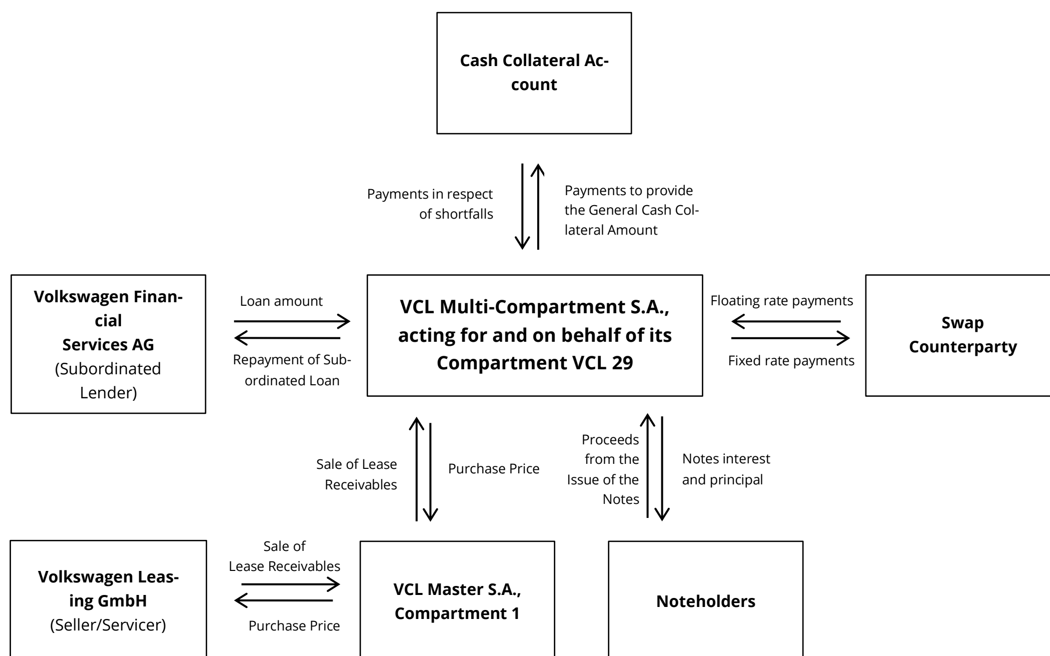
Issuer

The Issuer, VCL Multi-Compartment, acting for and on behalf of its Compartment VCL 29, is a special purpose vehicle ("SPV") incorporated under the laws of Luxembourg. The company is registered with the Luxembourg Trade and Companies Register and has explicitly stated in its articles of incorporation to be governed by the Luxembourg securitization law. The Issuer is a securitization company with the sole purpose of entering into securitization transactions through separate compartments. Risks related to the Issuer are limited, the compartment structure being ring-fenced and with limited recourse to other creditors of the Issuer and including non-petition provisions. We regard the structure of the Issuer as being bankruptcy-remote. CRA conducted its rating assuming no adverse future change in Luxembourg securitization law.

The Issuer has entered into a receivables purchase agreement with the Seller to purchase lease receivables and create a portfolio of auto lease receivables. As of the closing date, VCL 29 will

acquire all rights and claims arising from the purchase of such receivables. The lease receivables were initially originated by the Seller and subsequently sold to VCL Master S.A., Compartment 1 ("VCL Master"), acting as an intermediate warehousing vehicle. The structure of the transaction is shown below (Figure 1):

Figure 1: Transaction Structure I Source: VWL



Seller and Servicer

VWL is a wholly owned subsidiary of VWFS and acts as Seller and Servicer of the lease financing contracts. VWAG is the parent company of VWFS, holding 100% of its shares and thus a controlling interest. VWAG´s non-bank-related financial division, as represented by VWFS, is a core business of the group with a significant contribution to group total earnings. CRA undertook an unsolicited rating of VWAG.

VWAG is currently facing legal and financial uncertainties resulting from the use of particular software in type EA 189 EU5 diesel engines. On September 18, 2015, the US Environmental Protection Agency (EPA) published a Notice of Violation alleging Volkswagen of having used certain software in diesel engines to circumvent emission standards under the Clean Air Act. According to a public announcement by VWAG, around 11 million vehicles worldwide might be affected. On December 16, 2015, Volkswagen announced that the presented technical measures have generally been approved by the German Federal Motor Transport Authority (KBA) with the consequence that the measures also apply to the EU-28 markets.

In its FY2018 report, VWAG recorded provisions of EUR 20.0bn, which declined by EUR 2.1bn due to their use in connection with the diesel issue, and identified five potential material consequences for its result of operations, financial position and net assets:

- Coordination with the authorities on technical measures
- Criminal and administrative proceedings all over the world (excluding USA/Canada)
- Product-related lawsuits worldwide (excluding USA/Canada)

- Lawsuits filed by investors worldwide (excluding USA/Canada)
- Proceedings in the USA/Canada

In its HY2019 report, VWAG reported sales revenues of EUR 125.2bn (+4.9% YoY) and an operating profit of EUR 9.0bn up from EUR 8.2bn the prior year. Special items amounted to EUR 1.0bn in the first half of the financial year 2019. However, the Automotive Division's net cash flow improved to EUR 5.6bn from EUR 3.3bn on June 30th, 2019. For FY2019 VWAG expects the sales revenues to grow by approximately 5% YoY.

VWAG is in exchange of information with authorities to coordinate remedial actions. Although VWAG could conclude several settlement agreements in the United States and has reached several agreements with numerous authorities in other countries, VWAG is still exposed to various investigations as well as lawsuits in which authorities, investors and individuals have asserted claims against VWAG. The long-term implications of the manipulation of diesel emissions might include reputational damage, sale contractions, and negative financial impacts due to fines, costs of recall campaigns and higher financing costs. Creditreform Rating will closely monitor all future developments and implications for the transaction (also see "Volkswagen Manipulation of Diesel Emissions" below).

True Sale

CRA has undertaken a review of the transaction structure and verified the consistency with the legal documentation. In addition, we obtained legal opinions that the securitized lease contracts constitute legal valid, binding and enforceable agreements.

Eligibility Criteria

VWL as Seller warrants and guarantees, with respect to the purchased lease receivables, that the following eligibility criteria, among others, have been fulfilled at the cut-off date:

- Lease receivables are legally valid and binding agreements
- Lease contracts are denominated in EUR, assignable and require monthly payments
- Lessees are corporate entities with offices or private individuals with residences registered in Germany
- The status and enforceability of the lease receivables is not impaired due to warranty claims or any other rights
- Lease receivables may be disposed of free from rights of third parties
- The purchased lease receivables are free of defences, whether pre-emptory or otherwise for the agreed term of the lease contract as well as free of rights of third parties
- No purchased lease receivable was overdue; no lessee insolvencies have occurred
- Lessees are not affiliates of VW
- The lease contracts were not terminated and terminations are not pending
- Lease contracts must include substantially equal monthly payments to be made within 12-60 months from origination
- At least two instalments have been paid
- Single lessee concentration will not exceed 0.5% of the aggregate discounted receivables balance
- More than 95% of the leased vehicles belong to the VWAG brands VW, Audi, Seat, Skoda, VW Nutzfahrzeuge ("VW LCV")
- The pool of lease receivables does not represent a separately conducted business or business segment of the seller

- Lease receivables do not relate to lessees who VWL considers as unlikely to pay its obligations to VWL and/or who are past due more than 90 days on any material credit obligation to VWL
- Lease receivables do not relate to credit-impaired lessees or guarantors who
    - have been declared insolvent, or
    - had a court grant their creditors a final non-appealable right of enforcement or material damages as a result of a missed payment within three years prior to the date of origination, or
    - have undergone a debt-restructuring process with regard to their non-performing exposures within three years prior to the date of transfer of the Purchased Receivable to the Issuer, or
    - were, at the time of origination, where applicable, on a public credit registry of persons with adverse credit history or, where there is no such public credit registry, another credit registry that is available to VWL, or
    - have a credit assessment or a credit score indicating that the risk of contractually agreed payments not being made is significantly higher than for comparable receivables held by VWL which are not securitized.

Following a breach of eligibility criteria, VWL is obliged to cure and remedy such breach, replace or repurchase the receivables within the end of the monthly period which includes the 60th day after VWL became aware or was notified of such breach at the fair value that any misrepresented receivable had prior to becoming aware of the misrepresentation.

Capital Structure

The discounted receivables balance is calculated using a discount rate equal to 5.7016% per annum. The discount rate is used to cover senior expenses and the servicing fee as well as the weighted average swap rate based on the notional amounts outstanding at each date. At the onset of the transaction, it is calculated as follows (Table 2):

Table 2: Discount Rate Composition

Parameters	
Weighted average swap rate (%)	0.2239
Servicing fee (%)	1.0000
Senior expenses (%)	0.0300
Subtotal (%)	1.2539
Buffer release rate (%)	4.4477
Discount Rate (%)	**5.7016**

A buffer release amount, calculated as the product of the buffer release rate and the future discounted receivables balance, is paid to the Seller as long as no insolvency event on the part of VWL has occurred. In the event of insolvency, the structure will additionally benefit from the buffer release rate.

The total balance sheet of the Issuer is shown in Table 3 and is composed as follows:

Table 3: VCL 29 Balance Sheet

Assets	Amount (EUR)	Liabilities	Amount (EUR)	Size (%)
Receivables	1,000,008,116.51	Class A	941,000,000.00	94.10
Cash Reserve (CCA)	12,000,000.00	Class B	19,000,000.00	1.90
VWL Risk Reserve (CCA)	11,000,000.00	Sub Loan	32,008,116.51	3.20
		PPD OC	8,000,000.00	0.80
		Cash Reserve (CCA)	12,000,000.00	1.20
		VWL Risk Reserve (CCA)	11,000,000.00	1.10
Total	1,023,008,116.51		1,023,008,116.51	102.30

The Class A notes represent 94.10% and Class B notes 1.90% of the discounted receivables balance. Credit enhancement to the notes is provided by a Subordinated Loan (3.20%), a purchase price discount for overcollateralization (0.80%), and a cash reserve, funded at 1.20% of the lease receivables balance.

Interest Rate Swap

To hedge the interest rate risk arising from a mismatch between fixed lease payments and floating-rate interest payments on Class A and Class B notes, the Issuer will enter into two swap agreements to receive floating rate payment (1m Euribor + 0.65% for Class A notes and 1m Euribor + 0.78% for Class B notes floored at zero) while paying the fixed leg of each swap. The fixed rates have been calculated to include the Class A or Class B margins; payments under the swaps are linked to the outstanding balance of the respective notes.

Order of Priority and Triggers

Monthly payments to transaction parties are calculated on the available distribution amount and will be distributed according to the priority of payments. The monthly amount available for distribution and the order of priority are shown below (Table 4, Table 5):

Table 4: Available Distribution Amount

Available Distribution Amount	
1	+ Collections received or collected by the Servicer in relation to the preceding Monthly Period
2	+ Issuer's portion of the recovery proceeds from the realisation / sale of leased vehicles
3	+ Payments from Cash Collateral Account
4	+ Net swap receipts
5	+ Investment earnings from the Distribution Account
6	+ Repurchase price received from VWL pursuant to the Receivables Purchase Agreement
7	- Buffer Release amount to be paid to the Servicer, provided that it is not insolvent

Table 5: Priority of Payments

Order of Priority	
1	Taxes, senior expenses and fees
2	Net swap payments, first, for the Class A notes, second, for the Class B notes (except termination payments for defaulting swap counterparty)
3	Interest payments on the Class A notes (accrued and unpaid)
4	Interest payments on the Class B notes (accrued and unpaid)
5	Payment to the Cash Collateral Account
6	Payment to the Cash Collateral Account Ledgers (Increased German Trade Tax Risk Reserve Amount + unused amount of the VWL Risk Reserve)
7	Principal payment of the outstanding balance of the Class A notes, to the targeted Class A notes balance
8	Principal payment of the outstanding balance of the Class B notes, to the targeted Class B notes balance
9	Payments to the swap counterparties under the swap agreement (to the extent not paid under item 2 above)
10	Accrued and unpaid interest on the subordinated loan
11	Principal payment of the outstanding balance of the subordinated loan
12	Payment of a final success fee

Interest payments of Class A notes rank senior to interest payments of Class B notes. The targeted note balances are calculated with respect to a target level of overcollateralization. The overcollateralization ("OC") level can be defined as the relative excess of the aggregate discounted receivables balance over the nominal amount of the Class A or Class B notes. Principal payments of Class A notes are granted sequential priority over those of Class B until the Class A target OC level has been reached ("sequential amortisation"). After this event, the Class B notes will be redeemed until the Class B target OC level has been reached while maintaining the Class A target OC level. Then, Class A and B notes will be redeemed on a pro-rata basis. The structure will switch to sequential amortisation of the notes again when the asset balance has amortised to 10% of the initial balance or after certain performance triggers have been breached.

Table 6: Performance triggers and target OC levels

Triggers	Class A	Class B
Initial OC level (%)	5.90	4.00
Target OC, if no CE increase condition is in effect (%)	12.25	7.50
Target OC after the level 1 trigger breached (%)	14.00	8.25
Target OC after the level 2 trigger breached (%) / asset balance <10%	100.00	100.00

Transaction benefits from OC and uses performance triggers to switch to sequential amortisation

Should the cumulative net loss ratio exceed certain threshold values, target OC levels will be increased. A "Level 1 Credit Enhancement Increase Condition" will be triggered if cumulative net losses exceed 0.50% before (and including) the payment date in February 2021, or 1.15% after the payment date in February 2021 until (and including) the payment date in November 2021 (see Table 6). This results in a switch to sequential amortisation until the new Class A target OC level has been reached. An increase in cumulative net losses to more than 1.60% will trigger a

"Level 2 Credit Enhancement Increase Condition" and amortisation will become strictly sequential.

Cash Collateral Account

Cash Collateral Account includes fully funded "VWL Risk Reserve" to cover seller-related risks.

The Cash Collateral Account ("CCA") includes several positions. A cash reserve, initially amounting to EUR 12m (the "General Cash Collateral Amount") is available to cover senior costs, swap payments and note interest payments. Prior to the occurrence of a foreclosure event, the cash collateral account will be refunded on each payment date from the available distribution amount remaining after items 1-4 of the Priority of Payments. The CCA balance equals the greater of:

- 1.20% of the aggregated discounted receivables balance as of the end of the monthly period, or
- The lesser of EUR 10m or the outstanding volume of Class A and Class B notes

If either the final maturity date is reached or the aggregate discounted receivables balance has been reduced to zero, any remaining General Cash Collateral Amount may be used to redeem the Class A and Class B notes, providing credit enhancement to the notes.

On the Issue Date, VWL will credit to the Cash Collateral Account an additional amount of EUR 11m (the "VWL Risk Reserve") which will be available to mitigate trade tax and VAT tax risks, and cover the Issuer´s exposure to VWL. The amounts credited to the VWL Risk Reserve will not be part of the General Cash Collateral Amount. Provided that either the final maturity date is reached or the aggregate discounted receivables balance has been reduced to zero, any remaining amounts standing to the credit of the VWL Risk Reserve will be released to VWL. The VWL Risk Reserve does not protect against lessee credit risk, but may be used to cover claims against the Seller.

Operational Risk

German Economic Outlook and Auto Leasing Business

Strong macroeconomic fundamentals in Germany, a stable European Auto ABS market and strong German lease business support VWFS´s strategy

GDP growth of Germany in the first half of 2019 has slowed down noticeably, driven by a weakened foreign trade. While imports in the second quarter of 2019 continued to grow solidly and were 2.5% above the level of the previous year, exports stagnated (+ 0.1% YoY). Growing uncertainty about international trade conflicts and the upcoming Brexit have additionally weakened the German export sector. The mainstay of the economy in the first half of 2019 was again the strong domestic demand. Government consumption expenditures increased by 1.8% YoY. Supported by continued employment growth and rising disposable income, German households recently increased spending by 1.5%.

The UK's decision to leave the EU may have negative repercussions in case of a disorderly Brexit, given the close trade ties and financial linkages. Considering risk dimensions like direct investments, export, financial sector and migration, Germany is midrange of all EU27 countries regarding the impact of a disorderly Brexit (see Creditreform Rating (2019): "What If? – Folgen eines harten Brexits für die EU-27 Staaten"). Compared with its peers, Germany´s headline macro indicators remain strong. We forecast domestic investments to be robust and foreign demand continues to weaken in 2019, which further weakens GDP growth.

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On April 26, 2019, Creditreform Rating affirmed the unsolicited long-term sovereign rating of "AAA /stable" for the Federal Republic of Germany. Our economic outlook for Germany is moderate. In our view, the German economy is subject to an environment marked by uncertainty, but strong macroeconomic fundamentals should generally support VWFS's ABS strategy.

The European securitization market has declined substantially since the 2008 financial crisis and current total market volumes have remained below their pre-2008 levels. Notably, the share of auto ABS in total transaction volume has been increasing in recent years. Following an average annual issuance volume of EUR 4.6bn between 2000 and 2005, it increased to EUR 13bn between 2006 and 2010, peaking at EUR 30bn in 2016. Germany saw an increase from EUR 5.2bn in the first half of 2018 to EUR 6.2bn in the first half of 2019. This mirrored the strong performance of the European automobile markets in 2018, with 15.2m (+0.1% YoY) new vehicle registrations in the EU. In the first half of 2019, the German automobile market has shown a robust performance, with new vehicle registrations slightly increasing to 1.85m (+0.54% YoY). At the same time, the diesel share of new car registrations in Germany remains stable at 32.9% (2018: 32.1%).

As of November 2018, lease investments in Germany have slightly increased to a total of EUR 60.6bn (2017: 58.5bn), with automobile leases taking a major share of 77% (2017: 77%) in all leasing goods. The German fleet leasing market is dominated by national captives such as Volkswagen, Audi, BMW or Mercedes-Benz, which generate well beyond 70% of the total business. Following a new record in new lease registrations in 2017, the year 2018 showed a slight decrease of -0.2% YoY. These developments were mainly driven by a supply shortage following the introduction of the new worldwide-harmonized light vehicles test procedure ("WLTP") in September 2018. Catch-up effects were observed in the first half of 2019, where the number of leased vehicles was 9% higher than in the same period last year.

Developments in the Auto ABS market are driven by a small number of originators. In particular, Volkswagen expanded its market position with the volume of issuances growing between 2010 and 2015, and represents a share of 30% of total issue volume since 2000. VWL´s entire portfolio of lease financing contracts increased from 1.49m in 2018 to 1.59m in June 2019. The German loan and lease business penetration rate of VWFS (vehicle deliveries combined with financial service contracts) has decreased from 44.9% in 2017 to 43.4% in 2018, due to the restructuring of VWFS in 2017.

German Local Area Diesel Ban

On February 27, 2018, the Federal Administrative Court ("BVerwG") in Germany ruled that driving restrictions and local area bans for diesel vehicles are a legal means to reduce emissions and improve air quality. Currently, seventy-three percent of the outstanding discounted balance are diesel vehicles and might be affected by future driving restrictions and/or local area bans. Overall, the court´s decision may significantly impact the new and used car diesel markets, both in terms of sales volume and registrations, as well as in terms of residual value and expected recovery performance. As of today, it is not possible to quantify all current and future commercial and financial implications of local driving restrictions for diesel vehicles in German inner cities. In conjunction with VWFS´ EA189/NOx diesel issue, CRA decided to maintain conservative margins in its base case assumptions (see "Counterparty Risk" below).

Origination and Underwriting

Established and proven origination and underwriting procedures, IT systems and operation units

VWL, representing German leasing operations, is the originator of the purchased lease receivables. VWL will enter into a lease receivables purchase agreement with VCL 29 to sell the lease receivables, using the VCL Master structure for the transfer of assets from VWL to the Issuer. VWL and its subsidiaries provide leasing solutions for new, used and demonstration vehicles of Volkswagen, Audi, Seat, Skoda and VW Commercial Vehicles ("VW LCV") and non-VW brands to commercial and non-commercial customers, and may periodically include other manufacturers and/or brands in their financing. VWL co-operates closely with the group dealership network as well as manufacturing departments to scale VWAG's business. Co-operations are established by dealer agreements.

Managing its lease portfolio, VWL has to ensure high consistency and quality of underwriting procedures in its lease operations and business entities. Being one of the largest servicers in the European auto lease business, VWL relies on established processes and IT systems to support its operations. VWL has implemented internal score-cards including credit scores sourced from external credit bureaus to assess customer credit profiles. Lease applications are processed and approved automatically without involvement of VWL staff for low risk customers. For customers with a higher credit risk profile, qualified credit officers evaluate credit decisions. Certain limits for credit engagements are established, as well as special guidelines for lease applications with an aggregate amount of more than EUR 200,000.

VWL has integrated a separate fraud detection team in its operations unit. New employees are required to pass a three-month training programme before entering into operational tasks in their respective teams. VWL furthermore ensures ongoing internal training to improve professional qualifications.

Creditreform Rating analysts conducted an on-site review and due diligence in VWFS's facilities in Braunschweig in April 2019. CRA got a fair picture of servicing and underwriting capacities, as well as of debt management, collection procedures and risk management. In our view, a long track record of leasing originations as well as proven and established procedures in servicing and debt management enable VWL to fulfil its obligations as Servicer as defined in the VCL 29 transaction documents.

Servicing and Collections

VWL services the lease receivables over time and is responsible for collections and repossession of leased vehicles. The first lease instalment is due when the vehicle is handed over to the lessee. VWL offers lessees to make use of the direct debit system which covers approximately 94% of all monthly lease instalments. VWL employs a debt management team to handle delinquent contracts with the aim to minimize losses and assert all claims against defaulted customers. The debt management team uses reminder letters and phone contact to collect overdue outstanding lease payments. Standardized collection and debt management procedures were implemented to reduce court orders and legal enforcement measures. VWL's debt management employees are authorized to grant reasonable payment extensions. If a commercial lessee has failed to pay two instalments, VWL will have the right to terminate the lease contract and to repossess the vehicle. If the debt management process has ended without receiving any notice from the lessee, an application for a court order is made by VWL.

Debt management works closely with the collection centre to ensure the timely repossession of vehicles from terminated lease financing contracts. The main tasks of the collection centre are negotiating on agreements on payment extensions, the processing of corporate and consumer

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insolvencies, the use of payment guarantees and processing of irrecoverable debt and write-offs. If lessees do not return the vehicles voluntarily, VWL mandates external repossession servicers. For enforcement purposes, VWL will refer to the resources of the entire VW group to enforce interests and claims.

Counterparty Risk

Volkswagen Manipulation of Diesel Emissions

VW diesel emission manipulations may threaten future financial position; pose indirect risk to future portfolio performance

On September 18, 2015, the US Environmental Protection Agency issued a Notice of Violation to Volkswagen Group of America Inc. alleging that VW had been using software to circumvent emission standards under the Clean Air Act. Subsequently, Volkswagen AG announced that irregularities concerning particular software used in type EA 189 EU5 diesel engines affected approximately 11 million vehicles worldwide and approximately 8.5 million vehicles in Europe (VWAG press release, October 15, 2015).

A number of legal proceedings were subsequently iniciated in several countries. VWAG could end many proceedings by entering settlement agreements and agreements on the implementation of technical measures with numerous authorities. However, several other proceedings in relation to the diesel issue are still ongoing, including class actions in some jurisdictions.

On June 13, 2018, the Braunschweig public prosecutor issued a fine notice of EUR 1bn against VWAG due to violations of supervisory duties in the context of the diesel issue. The fine consists of the maximum penalty legally provided for of EUR 5m and the penalty for economic benefits due to the offence of EUR 995m. On November 1, 2018, German consumer group vzbz has filed a class action lawsuit against VWAG on diesel test emission manipulation. On February 22, 2019, the German Federal Supreme Court has published an indicative court order confirming the opinion of the claimant that software circumventing emission standards should be assumed to be a material defect.

According to information provided by VWL, there are no vehicles with Type EA189 diesel engines in the VCL 29 portfolio. Therefore, the portfolio is not directly affected by EA189 software irregularities (unfixed vehicles). But additional proceedings or claims for damages may be initiated, if the technical solutions implemented by VWAG would have undisclosed negative effects on the affected vehicles.

Overall, CRA decided to maintain a conservative margin in its base case assumptions. Furthermore, we take into account potential market impact on residual values both from the manipulation of diesel emissions and the evolving market environment (diesel ban) by adequately sizing our recovery rate haircuts. We will update our ratings subject to new information that will be available in the future.

Commingling Risk

VWL Risk Reserve available to cover seller-related exposure up to an amount of EUR 11m.

The transaction is structured to include a mechanism to protect against counterparty exposure resulting from VWL acting as a Seller and Servicer. As long as VWL is the Servicer for VCL 29 and the Monthly Remittance Condition is satisfied, the Servicing Agreement grants a right to VWL to commingle funds such as monthly collections or proceeds from the realisation of vehicles with its own funds during each monthly period and to use these funds at its own risk and for its own benefit until the next relevant payment date. In the case of a default of VWL, such funds may be

lost in the Servicer´s insolvency estate, resulting in a (potentially non-recoverable) loss of monthly collections, including prepayments, for investors.

To mitigate commingling risk, the structure obliges the Servicer to advance the aggregate value of all lease payments due in the next monthly period ("Monthly Remittance Condition") if minimum ratings of VWFS / VWAG are no longer satisfied. In addition, VWL will, on the Issue Date, credit EUR 11m to the Cash Collateral Account (the "VWL Risk Reserve") in order to secure the rights and claims of the Issuer against VWL. This reserve is intended to cover trade tax and VAT tax risks, but may be used to cover commingling losses, if at any point in time VWL ceases to be the Servicer due to insolvency while the Monthly Remittance Condition has not been triggered and commingling losses accrue.

Tax Risk

The Issuer might be exposed to several tax risks according to German tax legislation. In general, risks might materialise when German tax authorities change their interpretation of tax legislations. In Creditreform Rating´s opinion, the Issuer´s exposure to tax risks is limited.

German trade tax risk may materialise if German tax authorities conclude that the Issuer is subject to trade tax in Germany. In such a case an add-back of interest would lead to higher business profits of the Issuer, which would result in a trade tax deduction. However, following the German Trade Tax Act, an add-back is limited to the amount of one quarter of the interest payments of the issuer. Risks related to a German Trade Tax Event are covered by part of the VWL Risk Reserve (the "German Trade Tax Risk Reserve"). We deem the German Trade Tax Risk Reserve to be sized sufficiently to cover this risk.

The Issuer could be exposed to German value added tax ("VAT") risk. VAT risk might materialise in the case of a Servicer replacement and a subsequent classification of the transaction as factoring business by German tax authorities. A secondary VAT liability could arise if VWL fails to forward the VAT portion included in the lease receivables to the tax authorities. In such case the Issuer will collect the gross amount of the receivables including the VAT and settle such liability on its own. Risks to the Issuer arise if VWL defaults before it has forwarded such amounts to German Tax authorities. With regard to our internal credit assessment of VWAG, we see limited exposure to such an event. CRA analyzed various cash flow scenarios which included potential VAT liabilities and factored these into the structure of the transaction in full, assuming an insolvency of the Seller. Usually, in the event of an insolvency of the Seller, the structure compensates for the loss by the buffer release rate, together with the VWL Risk Reserve. CRA conducted scenario analysis which included potential VAT liabilities and factored these into the structure of the transaction in full, assuming an insolvency of the Seller in the end of the transaction. CRA observed that this risk has no effect on the rating of Class A notes, but might affect the rating of the Class B notes by one notch.

While assessing the ratings of the Class A and the Class B notes, we assumed no change in Luxembourg securitization law over the lifetime of the transaction.

Account Bank and Swap Counterparty

Downgrade and replacement provisions partly mitigate counterparty exposure

VWL has entered into a service agreement with the Issuer to perform tasks according to its usual business practices, such as the service and administration of the receivables. To fulfil its duties, VWL will transfer the collected funds to the Account Bank on behalf of the Issuer. Therefore, the Issuer has established at least four accounts as defined in the Account Agreement in accordance with the terms and conditions of the transaction structure. The Issuer is exposed to the default

risk of the Bank of New York Mellon ("BNYM"), appointed to be the Account Bank. However, default risks are mitigated by certain downgrade provisions linked to the rating of the Account Bank. Should BNYM be downgraded, the Account Bank is required to transfer the balance of the account to another bank with sufficient ratings on its own cost. To assess the risk relating to the Account Bank, Creditreform Rating has undertaken an unsolicited bank rating of BNYM. The current rating of BNYM as of May 27, 2019 is A/stable.

The Issuer will enter into two separate swap agreements with DZ BANK AG Deutsche Zentral-Genossenschaftsbank ("DZ Bank") to mitigate exposure to interest rate changes over time and hedge the interest rate risk arising from receiving fixed rate payments under the lease receivables and paying a floating rate on the Class A and Class B notes. Under the terms of the swap agreements, the Issuer expects to receive floating rate payments based on 1-month Euribor plus spread in return of a fixed rate paid to DZ Bank.

The Issuer is exposed to the risk of DZ Bank failing on any monthly payment, in which case the available distribution amount (including the cash reserve) may be insufficient to make required payments on the notes. Depending on the future development of interest rates, the Issuer may also be obliged to transfer net payments to DZ Bank. As the monthly net swap payments rank senior to any liabilities on the notes, the available distribution amount may be insufficient to cover all required payments on the notes. The transaction is also exposed to the risk of Swap Counterparty insolvency. In this case, substantial swap termination payments may arise depending on the future development of interest rates and the future market value of the swap.

To mitigate Swap Counterparty exposure, the structure foresees certain downgrade provisions linked to the rating of the Swap Counterparty, which require certain actions, should its ratings fall below a minimum rating threshold. These actions may include the collateralization of the referenced amounts by the Swap Counterparty, a transfer of obligations to a replacement Swap Counterparty, or the procurement of a guarantee. The unsolicited bank rating of DZ Bank undertaken by Creditreform as of December 2018 is AA- with stable outlook.

Credit and Portfolio Risk

Creditreform Rating´s credit and portfolio analysis were based on data provided by VWL, which included net loss vintage performance curves going back to 2002, as well as delinquency data going back to 2010. VWL provided stratification tables based on the final pool ("black pool") which allow a further assessment of the portfolio composition. The quality and quantity of data available was considered sufficient for the purpose of our analysis.

Receivables Pool Characteristics

Portfolio Composition

The portfolio consists of lease financing contracts originated by VW group dealers and entered into between lessees and VWL. It includes different vehicle brands (i.e. Volkswagen, Audi, SEAT, Skoda and VW LCV). The lease financing contracts are extended to commercial and non-commercial customers as a partially amortizing finance lease. Dealers typically bear the residual value ("RV") risks related to the final sale, but may buy insurance against RV losses from VWL. A small percentage of lessees choose to bear part of the RV risk ("Open End Lease Contracts", see Table 7). At the end of the lease term, the vehicle will be sold by the dealer and the proceeds will be distributed according to the terms of the lease contract. The portfolio is well diversified and does not contain any significant single obligor concentrations.

Table 7: Portfolio Characteristics

Portfolio Characteristics	
Outstanding discounted receivables balance (EUR)	1,000,008,116.51
Average discounted balance / lease contract (EUR)	9,303.53
Number of lease financing contracts	107,487
Number of lessees	82,178
Type of lessees:	
Retail customers (%)[1]	74.91
Corporate customers (%)[1]	25.09
WA seasoning (months)	7.86
WA remaining term (months)	31.97
Closed End Contracts (%)[1]	99.55
Type of Car	
New (%)[1]	94.61
Used (%)[1]	2.67
Demonstration vehicles (%)[1]	2.71
Type of Motor	
Diesel (%)[1]	68.40
Petrol (%)[1]	30.09
Electric (%)[1]	1.02
Hybrid/Gas/Others (%)[1]	0.48

The following graphs show the maturity profile of the portfolio at the cut-off date as well as the distribution of vehicles by brand (see below):

Figure 2: Contract Maturity Profile I Source: VWL, CRA

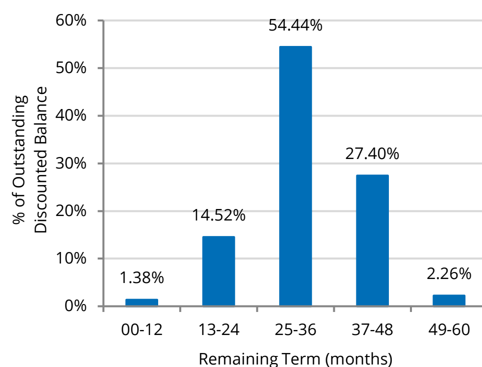
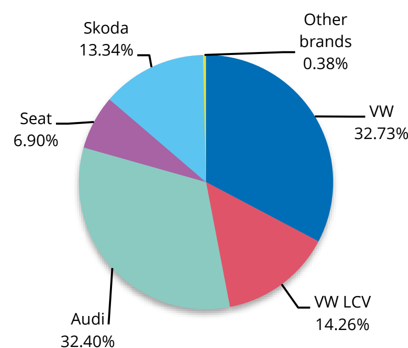


Figure 3: Brand Distribution I Source: VWL, CRA

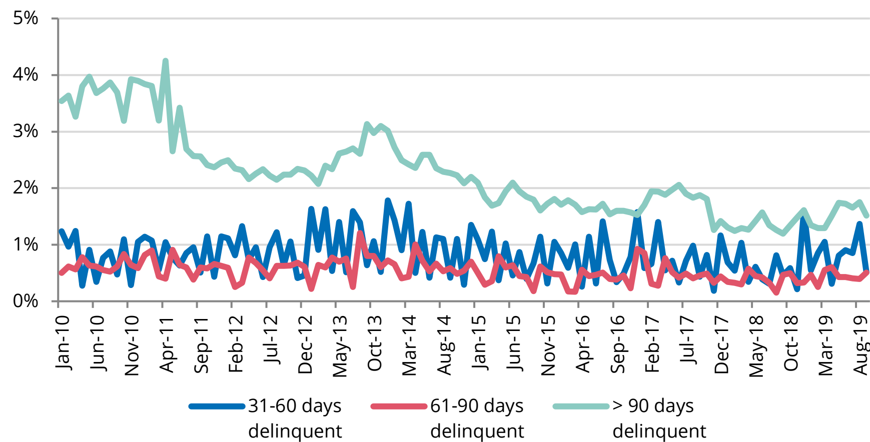


[1] Percentage of the Discounted Receivables Balance

Historical Performance

VWL provided delinquency performance data on single and business customers going back to 2008. Historically, delinquencies for the entire lease portfolio have shown a decreasing trend since 2013 with a slight increase in the end of 2018 (see Figure 4).

Figure 4: Delinquencies by Delinquency Period | Source: VWL, CRA



The lease financing contracts extended to customers typically grant a right to VWL to terminate a lease contract when the lessee is due more than two monthly lease instalments. As described in "Servicing and Collections" above, VWL normally reaches payment arrangements to remedy any outstanding liabilities with a client before terminating a lease contract.

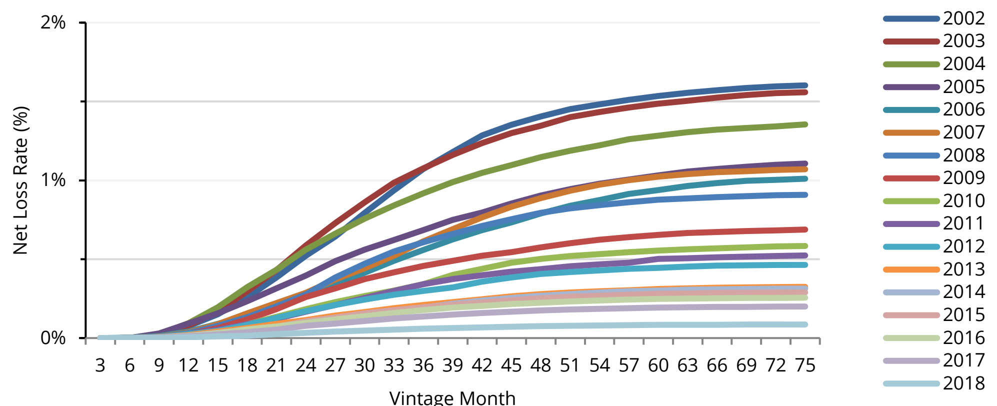
Credit Risk

Defaults

Creditreform Rating set its net-loss base case at 0.57%

VWL provided detailed total book vintage data on net losses. Creditreform Rating used this information to analyze the historical net loss performance of different vintages (see Figure 5):

Figure 5: Net Loss Rates of VWL Total Lease Book by Year, extrapolated I Source: VWL, CRA



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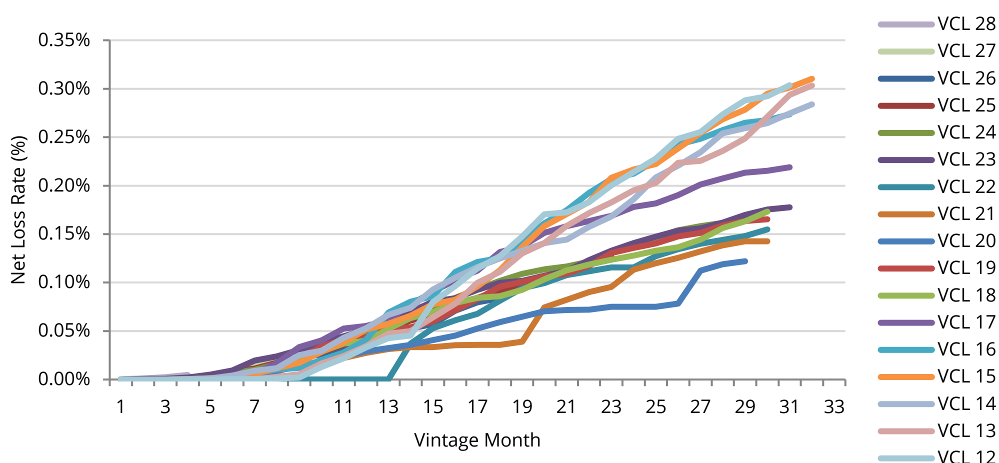
Historical and projected losses show a trend towards lower loss rates in younger vintages. This effect may partially be explained by improved servicing and collection performance of the Servicer. Moreover, the credit risk of the German corporate sector, which we consider a main driver of portfolio performance in the current lease securitization, has been significantly decreasing since 2009 (see Creditreform Rating (2019): "Default Study - Ausfallraten in der Deutschen Wirtschaft 2018"). Our economic outlook for Germany is moderate and we expect weaker economic growth in an uncertain macroeconomic environment. (see "German Economic Outlook and Auto Leasing Business" above).

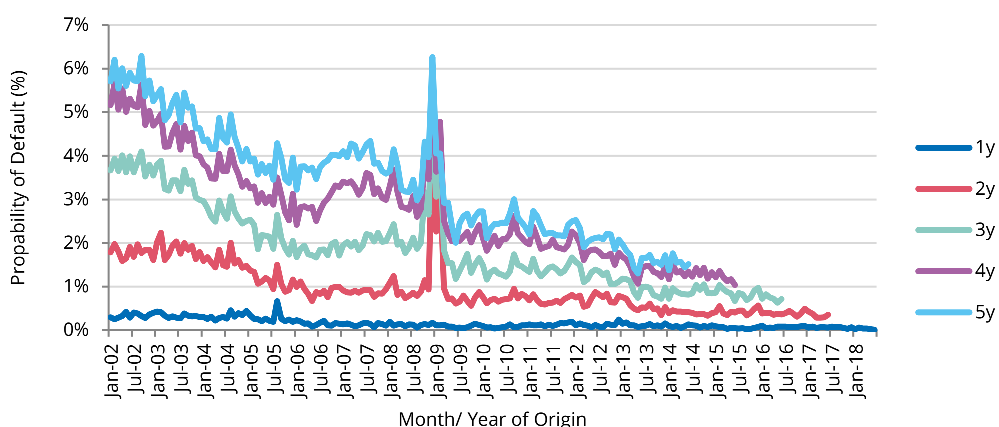
Figure 6: VCL Transaction Net Loss Performance I Source: VWL, CRA



Observed differences between total-book vintage performances and the performances of previous VCL transactions with respect to recorded cumulative and dynamic net losses ratios (Figure 6) may be explained by the application of eligibility criteria at the pool cut-off date and VWL exercising its clean-up call option at the end of a VCL transaction.

Analysis of historical default frequencies from vintage data reveals a trend towards declining default risk. In the graph below, we show probabilities of default ("PD") for different time horizons, combining overlapping vintages by date and time into a dynamic perspective (Figure 7):

Figure 7: Historical total book default rates, 1-year to 5-year probability of default I Source: VWL, CRA



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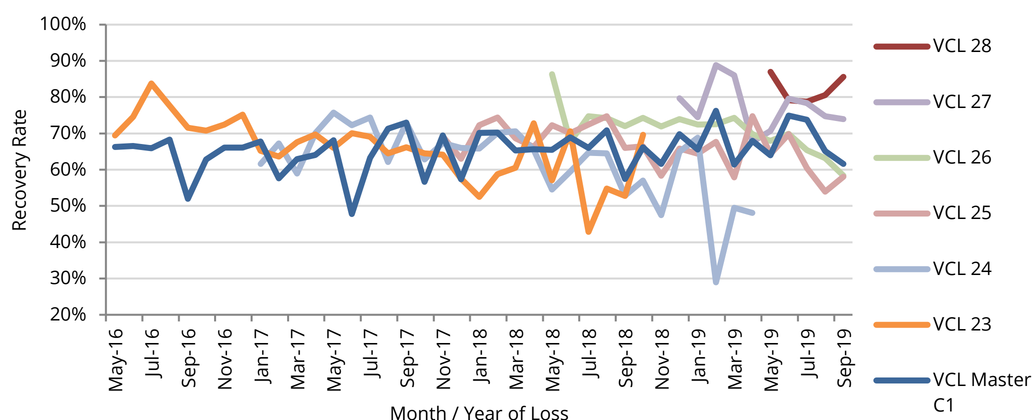
In deriving our base case loss rate assumption, younger vintages were consequently considered a better indicator of future performance. Based on improved historical performance and a stable economic outlook, Creditreform Rating has set a base case net loss expectation of 0.57% for its rating analysis, taking into account the typical maturity profile of lease financing contracts and adjusting for the specific maturity profile of VCL 29.

Recoveries

Creditreform Rating set the recovery base case at 65%

VWL did not provide explicit historical data on the recovery performance of its leases and leasing portfolios. However, an analysis of data on previous VCL transactions derived from investor reports provided sufficient information to gauge the recovery performance of the Servicer (Figure 8).

Figure 8: Historical recovery performance of VCL transactions I Source: VWL, CRA



Despite a relatively stable performance (between 60%-70%), the data reveal a fair amount of variation over time. As a cross-check, Creditreform Rating also used vintage data in dynamic format to compare gross defaults to recorded net losses and assuming a granular and homogeneous distribution of contract values in order to calculate implied recovery rates at different time. Creditreform Rating has set the recovery base case at 65%. Combining our net loss base case of 0.57% with a 65% recovery assumption, we obtained a gross loss rate expectation of 1.62% over the term of the transaction.

Prepayments

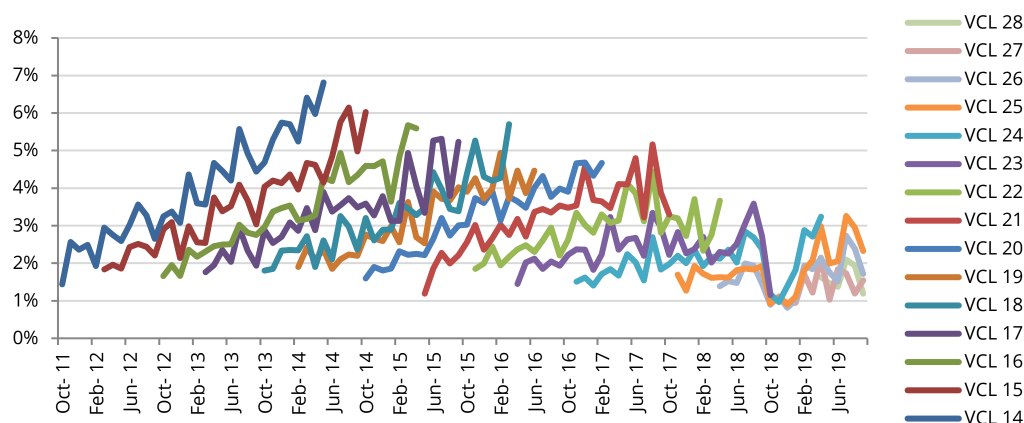
Creditreform Rating set the prepayment base case at 2.00% CPR

Creditreform Rating used data on prior VCL transactions to analyze historical prepayments. In general, the lease contracts purchased by the issuer do not provide a lessee with an option to prepay the lease contract. However, and subject to the discretion of VWL, lease contracts may be amended, resulting in a potential prepayment or early settlement of the lease contract. Prepayments have historically ranged between about 1 and close to 7 per cent annualized CPR (see Figure 9).

High prepayments pose a reinvestment risk to investors because of a lower weighted-average life ("WAL") of the notes. However, it is Creditreform Rating´s view that higher prepayments contribute to the structural stability of the transaction. From a rating perspective, lower prepayment assumptions represent a more conservative approach because the structure has to sus-

tain the higher WAL of the notes resulting from an overall lower cash inflow. Following the analysis of empirical data available, the base case assumption of the annualized prepayment rate was accordingly set to be 2.00%.

Figure 9: Historical prepayments (annualized CPRs) I Source: VWL, CRA



Base Case Summary

Creditreform Rating´s credit risk assessment was based on vintage data and prior VCL investor reports and results in the following base case assumptions, which will be used as an input to build rating scenarios and model the cash flows of the structure. The loss parameters displayed in the following table are stated with respect to the lifetime of the transaction, taking into account the seasoning and remaining maturities of the pool (see Table 8):

Table 8: Summary of Base Case Assumptions

Credit Risk Parameter	Base Case
Gross Loss (%)	1.62
Recovery Rate (%)	65.00
Net Loss (%)	0.57
Prepayment Rate (% ann. CPR)	2.00

Residual Value Risk

VCL 29 does not securitize residual values of the purchased lease receivables. Therefore, the Issuer is not exposed to risks related to the securitization of residual values.

Cashflow Analysis

Creditreform Rating simulated the transaction cash flows in its proprietary cash flow model, which was tailored to the structure of VCL 29. The purpose of the cash flow analysis is to test the transactions´ ability of paying interest and ultimate payment of principal by final maturity using stressed base case assumptions in each specific rating scenario. Creditreform Rating also tested the sensitivity of the transaction´s performance with respect to increases in the default rate assumption, decreases in the recovery rates, and prepayment scenarios.

A run-out schedule of the portfolio was implemented into the cash flow model taking into consideration the timing of defaults, the amount of prepayments, and the level of interest rates.

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Rating Scenarios

CRA base case stresses:

AAA_{sf}: x5.62 default multiple
48.45% recovery haircut

$AA-_{sf}$: x4.29 default multiple
40.48% recovery haircut

Taking our loss assumptions as a starting point, Creditreform Rating then stressed its base case assumptions in each rating scenarios in order to account for unexpected economic deterioration and worsening portfolio performance. Separate stress factors were applied to default and recovery rates to arrive at scenario-specific stressed loss expectations, which were then brought into the cash flow model.

Default Rates

Following our "Rating of Auto ABS Securitizations" methodology and depending on the specific rating scenarios (AAA_{sf} and $AA-_{sf}$), the stress multiples for default rates were set at x5.62 and x4.29, respectively. This leads to the rating-specific stressed gross loss of 9.08% for AAA_{sf} and 6.94% for $AA-_{sf}$.

Recovery Rates

The base case recovery expectation of 65% was subjected to a rating haircut in each rating scenario. The recovery rate haircuts were set to 48.45% in the AAA_{sf} scenario and 40.48% in the $AA-_{sf}$ scenario, respectively. The haircuts take into account different transaction-specific features such as observed volatility, established recovery procedures and potential residual value deterioration caused by the manipulation of diesel emissions. As a result, the stressed recovery rates were set to 33.51% in an AAA_{sf} scenario and 38.69% in an $AA-_{sf}$ scenario. The scenario-specific expected losses were calculated by applying our rating multiples and haircuts to the base case (Table 9).

Table 9: Stressed Assumptions

Rating Scenario	**AAA_{sf}**	**$AA-_{sf}$**
Base Case Gross Loss (%)	1.62	1.62
Default Multiple	5.62	4.29
Rating Loss Rate (%)	9.08	6.94
Base Case Recovery Rate (%)	65.00	65.00
Recovery Haircut (%)	48.45	40.48
Rating Recovery Rate (%)	33.51	38.69
Expected Net Loss (%)	**6.04**	**4.25**

Sensitivity Analysis

In order to gauge the effect of variations in default and recovery rates on rating indications, Creditreform Rating conducted a sensitivity analysis including independent and combined stresses of the default and recovery base case assumptions. Table 10 and Table 11 show the resulting rating indications for the Class A and Class B notes, respectively. For instance, the best case rating of an AAA_{sf} represents a scenario with unchanged base case assumptions. If the default rate base case was set to increase by 25%, our analysis would suggest a Class A note downgrade from AAA_{sf} to $AA+_{sf}$. The worst case rating of $A-_{sf}$ for the Class A notes represents a scenario, where a severe 50% stress on both defaults and recoveries is applied collectively.

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Table 10: Class A Sensitivities

Default \ Recovery	Base Case	-10%	-25%	-50%
Base Case	AAA_{sf}	AAA_{sf}	AAA_{sf}	$AA+_{sf}$
+10%	AAA_{sf}	$AA+_{sf}$	$AA+_{sf}$	AA_{sf}
+25%	$AA+_{sf}$	$AA+_{sf}$	AA_{sf}	$A+_{sf}$
+50%	AA_{sf}	$AA-_{sf}$	$A+_{sf}$	$A-_{sf}$

Table 11: Class B Sensitivities

Default \ Recovery	Base Case	-10%	-25%	-50%
Base Case	$AA-_{sf}$	$AA-_{sf}$	$AA-_{sf}$	A_{sf}
+10%	$AA-_{sf}$	$AA-_{sf}$	$A+_{sf}$	$BBB+_{sf}$
+25%	$A+_{sf}$	A_{sf}	$A-_{sf}$	BBB_{sf}
+50%	$BBB+_{sf}$	$BBB+_{sf}$	$BBB-_{sf}$	BB_{sf}

Creditreform Rating tested scenarios with back-, even-, and front-loaded default timings. As highlighted in Table 12, Creditreform Rating also assessed the effect of changing the prepayment rate to 0%. Overall, we observed reduced sensitivities of the Class A and Class B notes.

Table 12: Class A and Class B Prepayment Sensitivities

Prepayment rate	Class A	Class B
Base Case (2.00%)	AAA_{sf}	$AA-_{sf}$
Zero	AAA_{sf}	$AA-_{sf}$

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Appendix

Rating History

Event	Rating Date	Publication Date	Result
Initial rating	21.11.2019	25.11.2019	Class A AAA_{sf} /stable Class B $AA-_{sf}$ / stable

Regulatory Requirements

Creditreform Rating AG was mandated on August 23, 2019 by VWL to conduct ratings for Class A and Class B notes each issued by VCL Multi-Compartment S.A., acting for and on behalf of its Compartment VCL 29. The rating was conducted on the basis of Creditreform Rating´s "Rating Auto ABS Securitizations" methodology in conjunction with Creditreform Rating's basic document "Rating Criteria and Definitions".

Important sources of information in the context of the ratings were, in addition to the submitted documents, a due diligence meeting in Braunschweig (Germany) on April 4, 2019. The submitted documents and information from VWL were sufficient to meet the requirements of Creditreform Rating AG's rating methodology.

A complete description of Creditreform Rating´s rating methodologies is published on the following internet page: www.creditreform-rating.de.

This rating was carried out by analysts Philip Michaelis (Lead) and Sijia Aulenbacher, all located in Neuss/Germany.

The black pool cut-off date is October 31, 2019. Closing occurs on November 25, 2019. The ratings are based on the black pool portfolio information as of November 7, 2019, as provided by the originator.

The issuer or all relevant parties have examined the rating report prior to publication and were provided with at least one full working day to appeal the rating committee decision and provide additional information. The rating decision was not amended following this examination.

In 2011 Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

Conflict of Interests

No conflicts of interest were identified during the rating process that might influence the analysis and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks.

In case of providing ancillary services to the rated entity, CRA will disclose all ancillary services in the credit rating report.

Rules on the Presentation of Credit Ratings and Rating Outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our policy "Rating Committee," all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, CRA has used following substantially material sources:

1. Transaction documentation
2. Collateral performance data
3. Audited financial statements
4. Website of the participants

There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRA website. Furthermore CRA considers satisfactory the quality and extent of information available on the rated entity. In regard to the rated entity Creditreform Rating AG regarded available historical data as sufficient.

Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

The "Basic data" information card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In case where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating and indicates how the different methodologies or these other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions, such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings as well as best-case scenario credit ratings are explained.

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks is indicated clearly and prominently in the "Basic data" card as a "Rating action"; first release is indicated as "initial rating", other updates are indicated as an "update", "upgrade or downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within „Basic data" information card.

In accordance to Article 11 (2) EU-Regulation (EC) No 1060/2009 registered or certified credit rating agency shall make available in a central repository established by ESMA information on its historical performance data, including the ratings transition frequency, and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website: https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml.

An explanatory statement of the meaning of Creditreform's default rates are available in the credit rating methodologies disclosed on the website.

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Future events are uncertain, and forecasts are necessarily based on assessments and assumptions. This rating is therefore no statement of fact, but an opinion. For this reason, Creditreform Rating AG cannot be held liable for the consequences of decisions made on the basis of any of their ratings. Neither should these ratings be construed as recommendations for investors, buyers or sellers. They should only be used by market participants (entrepreneurs, bankers, investors etc.) as one factor among others when arriving at corporate or investment decisions. Ratings are not meant to be used as substitutes for one's own research, inquiries and assessments.

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