26 September 2019

Polish Lease Prime 1 DAC Leasing ABS

Ratings

Series	Rating	Notional (PLN m)	Notional (% assets)	CE (% assets)	Coupon	Final maturity
Class A-1	AAA _{SF}	1,290.0	51.6	28.9	3M Wibor + margin	Dec 2029
Class A-2	AAA _{SF}	545.0	21.8	28.9	3M Wibor + margin	Dec 2029
Class B	BB- _{SF}	640.0	25.6	3.3	3M Wibor + margin	Dec 2029
Junior	NR	24.9	1.0	2.3	3M Wibor + margin	Dec 2029
Rated notes	2,475.0					

Scope's quantitative analysis is based on the preliminary portfolio dated 18 August 2019 and the replenishment criteria in the prospectus, provided by the originator. 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.

Transaction details

Purpose	Liquidity/funding
Issuer	Polish Lease Prime 1 DAC
Originator	PKO Leasing Spółka Akcyjna (PKOL; not rated)
Servicer	PKO Leasing Spółka Akcyjna
Closing date	26 September 2019
Payment frequency	Quarterly: last business day in February, May, August and November

The transaction is a true-sale securitisation of a PLN 2.5bn revolving portfolio of lease receivables with no residual value risk, granted to SMEs in Poland by PKO Leasing S.A. (PKOL). Elavon Financial Services DAC is the issuer account bank and paying agent.

Rating rationale (summary)

The rating reflects: i) the legal and financial structure of the transaction; ii) the quality of the underlying collateral in the context of the robust Polish macroeconomic environment; iii) the ability of the originator and servicer, PKOL; and iv) the counterparty exposure to Elavon Financial Services DAC, as account bank and paying agent.

Class A-1 and class A-2 (together, class A) benefit from 28.9% credit enhancement at closing and protection against losses from the portfolio provided by excess asset interest. The class A is expected to amortise over a weighted average life of 1.1 years from the end of the two-year revolving period. Following the revolving period, the class A rating will benefit from sequential-amortisation triggers protecting against portfolio performance deterioration during the amortisation period.

Class B benefits from 3.3% credit enhancement at closing and pro-rata amortisation as long as sequential-amortisation triggers are not hit. The class B is expected to amortise over a weighted average life of 2.5 years from the end of the revolving period.

Furthermore, interest and principal priorities of payment are interconnected, ensuring liquidity support beyond the reserve fund for the payment of interest to all rated classes of notes. All rated notes benefit from a mechanism linked to portfolio defaults, which traps excess spread to ensure sufficient collateralisation.

Structured Finance



Scope Ratings

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Related Methodologies

General Structured Finance Rating Methodology

Methodology for Counterparty **Risk in Structured Finance**

SME ABS Rating Methodology

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The risk of portfolio performance deterioration is mitigated partly by early-amortisation triggers. Asset- and portfolio-level covenants limit qualitative changes to the portfolio's composition.

The short-term outlook for the Polish economy is positive for the transaction's expected asset performance. Sovereign risk does not constrain the ratings over the notes' expected life.

The rating also factors in the transaction's counterparty risk. The transaction is exposed to PKOL as servicer, PKO Bank Polski S.A. (PKO BP) as back-up servicer facilitator and Elavon Financial Services DAC as account bank and paying agent. The counterparty risk is mitigated by the credit quality of the counterparties, mechanisms in the structure such as regular cash sweeps and back-up arrangements, as well as the limited time exposure. In addition, the back-up servicer facilitator and the account bank are subject to replacement triggers upon a deterioration of their credit quality. We assessed the credit quality of PKO BP and Elavon Financial Services DAC using public information, taking the bank's public credit ratings into consideration. Scope maintains a private rating on PKO BP.

Rating drivers and mitigants

Positive rating drivers

Credit enhancement. Class A benefits from 28.9% credit enhancement provided by subordination and the cash reserve.

Robust Polish economy. The Polish economy will have a positive effect on portfolio performance and thus the rated notes. The solid economic environment is demonstrated by strong GDP growth and rising employment in combination with sound support from the private sector.

Short lifetime exposure. The class A notes have an expected weighted average life of 1.3 years at a 0% constant prepayment rate. This limits the exposure to both counterparty risk and possible macroeconomic deterioration.

Liquidity coverage. Liquidity is protected via the two separate but fully interconnected priorities of payment, ensuring the timely payment of class A interest. The structure also features an amortising cash reserve of 2.35% of the notes' balance plus the subordinated loan principal amount, with a PLN 4m floor. The cash reserve can absorb loses at maturity but cannot be used to provision for defaults during the life of the transaction.

No residual value risk. Receivables from the residual value of leased objects are not securitised. Almost all contracts amortise via constant annuities (French amortisation).

Negative rating drivers and mitigants

Revolving portfolio. The characteristics and credit quality of the portfolio may migrate during the replenishment period, i.e. two years after the closing date. This risk is mitigated by the originator's expertise and by the adequate single-asset, portfolio and performance covenants in the structure.

Unhedged interest reset-risk. The structure does not hedge against reset risk – the assets pay one-month Wibor while notes receive three-month Wibor. We have stressed the assets' margin to accommodate temporary margin compression during a possible sharp rise in interest rates and along the life of the transaction. This risk is mitigated by excess spread triggers which would start the early-amortisation of the transaction as well as protecting the class A by switching to fully sequential amortisation.

Back-up servicer. Operational risk arising from servicer default is only partially mitigated by the appointment of PKO BP as back-up servicer facilitator. No back-up servicer was appointed at the closing of the transaction.

Excess spread. The asset portfolio will generate only moderate spread in excess of interest due on the rated notes and transaction fees. Applying a stress of 1% senior fees, we estimate an excess spread at closing of 1.1%. Excess spread decreases to 0.3% when accounting for a minimum portfolio covenant of 3.0% over a one-month Wibor and a further 0.5% stress related to margin compression and interest rate mismatch.

Upside rating-change drivers

Faster-than-expected portfolio amortisation may benefit the class B rating if credit enhancement builds up before credit losses crystallise.

Better-than-expected portfolio quality at the end of the revolving period combined with a continued robust Polish economy would drive stronger deal performance and could positively impact the class B rating.

Downside rating-change drivers

Worse-than-expected asset performance showing in a higher-than-expected default rate or lower-than-expected recovery upon asset default would negatively impact the ratings.

Polish Lease Prime 1 DAC

Leasing ABS

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1. Transaction summary

Figure 1: Simplified transaction diagram



Source: Transaction documents and Scope

The transaction consists of the securitisation of a PLN 2.5bn portfolio of fully amortising lease receivables with no residual value risk, which PKOL originated and granted mainly to Polish SMEs. The leases finance the acquisition of light vehicles (new or used), trucks and trailers, machinery and equipment, and other vehicles. The transaction features a two-year replenishment period, subject to performance and asset-eligibility covenants.

The structure comprises two classes of notes (classes A and B) and junior funding, which provide financing for the PLN 2.5bn securitised portfolio. A subordinated loan granted by the originator provides funds for the junior funding and the PLN 58.8m reserve fund. The floating-rate notes amortise pro-rata but would switch to fully sequential amortisation when certain amortisation triggers are hit. All classes benefit from the interconnected principal and interest priorities of payment. The reserve fund provides liquidity and credit enhancement for all note classes.

Credit enhancement for the rated notes is provided via subordination, the reserve fund, and excess spread. The notes pay quarterly with a legal maturity on 28 December 2029.

2. Leasing environment in Poland

The lessees in the transaction's portfolio benefit from the ongoing growth of the Polish macro-economy, which is bolstered by EU funds investment, a strong industrial sector, good availability of credit, and strengthening private consumption.

The improving affordability of credit in Poland is especially credit-positive for portfolio performance as it reduces defaults and stabilises recovery rates. For households especially, credit affordability is further supported by rising wages, low inflation and rising employment.



The greatest challenge for the Polish economy, and thus for the portfolio's borrowers, resides in the political area. Recent government measures have the potential to weaken the institutional framework, which may undermine confidence among both domestic and foreign investors. In addition, Polish banks' current weak profitability might prompt external intervention, which could reduce credit affordability.

Since 2010, the Polish leasing market has grown steadily at two-digit rates year over year, except in 2013 and 2014 (see Figure 2). Growth has been driven by micro-sized companies (turnover at less than EUR 5m), which generated 52.0% of all new business in 2018. Real estate leases only play a marginal role, and new business regarding movables in the first half of 2018 was spearheaded by passenger and commercial light vehicles (52%), followed by heavy vehicles (24.9%), and machinery and equipment (21.2%).



Figure 2: Polish leasing market

3. Asset analysis

3.1. Securitised assets

The portfolio solely comprises receivables from leases that finance the acquisition of light vehicles (new or used), trucks and trailers, machinery and equipment, and other vehicles.

The portfolio benefits from positive selection compared to PKOL's total lease book, because eligibility criteria exclude exposures that are in arrears for more than seven consecutive days and whose overdue balance exceeds PLN 500 at the initial cut-off date. In addition, the criteria exclude exposures below a certain credit quality, as measured against PKOL's internal ratings and scores.

The current portfolio has 10 months of seasoning with a low weighted average remaining time to maturity of 3.2 years. Portfolio replenishments will reduce the seasoning and increase the remaining time to maturity. The lease receivables in the initial portfolio were originated between 2014 and 2019, with 98% originated from 2017 onwards. Lease receivables transferred to the portfolio have at least one instalment paid and a maximum maturity of six years after the transaction closing date.

The transaction has no residual risk because residual value is not securitised. The standard amortisation scheme is French and all lease receivables pay a floating rate referencing one-month Wibor.

The five portfolio segments have the following weights: new (39.3%) or used (23.0%) light vehicles, trucks and trailers (11.1%), machinery and equipment (23.2%), and other vehicles (3.5%).

Source: Polish Leasing Association



Based on PKOL's customer segmentation, most of the lease exposures relate to Polish SMEs (87.0%), of which 60.7% are micro-sized and 26.3% are medium-sized. Corporates make up the remaining 13.0%. Our asset analysis accounted for all portfolio segments (see Figure 3) and their respective risk profiles at the end of the revolving period. However, we modelled the portfolio in its entirety and not by its segments. Consolidated figures in Figure 3 reflect our modelling assumptions.

Figure 3: Portfolio segment overview – and considerations for the end of the revolving period

	Portfolio	Cars / new	Cars / used	Trucks and trailers	Machinery and Equipment	Other vehicles
Current portfolio share	100.0%	39.9%	23.0%	11.1%	23.2%	3.5%
Estimated share at end of revolving period	100.0%	30.0%	25.0%	12.5%	27.5%	5.0%
Current WA seasoning (years)	0.9	0.8	0.8	0.7	1.1	0.9
Estimated WA seasoning at end of revolving period (years)	1.7					
WA remaining term (years)	3.2	3.1	3.1	3.4	3.3	3.4
Estimated WA remaining term at end of revolving period (years)	3.6					
WA margin	3.3%	3.0%	3.3%	3.1%	4.0%	3.3%
Estimated WA margin from end of revolving period	3.0%					

3.1.1. Granular portfolio with no relevant concentrations

We did not adjust the portfolio's credit figures (estimated using vintage data) based on obligor, sector or regional concentrations. This is because the portfolio is granular and well-diversified across sectors, and these characteristics are unlikely to change significantly over the replenishment period as the current portfolio's structure resembles that of PKOL's lease book.



Figure 5: Regional distribution of the initial portfolio





- Manufacturing (22.8%)Transportation (12.5%)
- Construction (11.1%)
- Wholesale trade (10.5%)
- Retail sale (9.4%)
- Other (33.7%)



Initial portfolio will change via replenishments

3.2. Post-replenishment portfolio

The closing portfolio will change via monthly replenishments during the two-year revolving period, i.e. from the closing date until 27 September 2021. The maximum replenishment amount on each replenishment date is the difference between the initial PLN 2,500m portfolio balance and the outstanding balance.

Our analysis accounted for the risks inherent to revolving transactions, namely portfolio deterioration and changes to portfolio characteristics, all within the covenanted limits on both portfolio and asset level. We believe the risk of deviation beyond these limits is covered by standard stresses applied in our analysis.

Our expectations regarding the post-replenishment portfolio consider the contractual amortisation of the initial portfolio and the addition of new unseasoned lease receivables. Subsequent portfolio replenishments were assumed to be the most adverse possible, i.e. the maximum allocation to the segments of machinery and equipment, other vehicles, and trucks and trailers. In addition, we considered the minimum average yield for the new loans added to the portfolio, the minimum seasoning and the maximum remaining term.

We also assumed defaults for 0.25% of the portfolio by the end of the revolving period, i.e. assets that are neither performing nor provisioned with excess spread. This share corresponds to the early-amortisation trigger linked to the principal deficiency ledger (PDL) (see Figure 7) and is debited to the PDL. In addition, for the analysis of the class A notes only, the maximum allowance for the 1.5% dynamic delinquency ratio (corresponding to the early-amortisation trigger linked to the dynamic delinquency ratio, see Figure 7) is considered to default two months after the amortisation period begins (before the cure rate is applied).

3.3. Impact of replenishment mechanisms

The replenishment mechanisms preserve the collateralisation of notes via non-defaulted assets and cash. The structure uses collected funds to acquire new assets every month. Portfolio defaults trigger the trapping of excess spread. The replenishment period ends on 27 September 2021 or earlier if triggered.

3.3.1. Early-amortisation triggers

We regard as adequate the transaction's protection against risks inherent to revolving transactions, namely a deterioration in portfolio quality or performance. The risk of adverse changes to portfolio characteristics is mitigated by portfolio and single-asset covenants over the replenishment period.

The amortisation phase starts if the originator or servicer breaches any representations and warranties regarding either asset eligibility or portfolio concentration limits; or if the servicer cannot originate enough eligible receivables to maintain the required collateralisation (i.e. maximum collateralisation allowed in cash is 10% on any payment date). A change of control from PKO Bank Polski S.A. (PKO BP) over PKOL to another entity will also trigger early amortisation.

Portfolio underperformance also triggers the end of the replenishment period and the start of the amortisation phase (see triggers in Figure 7).

Replenishment covenants protect collateralisation of the rated notes

Early-amortisation triggers protect against portfolio underperformance



Trigger	Description
Representations and warranties	Breach of representations and warranties with material adverse effect from originator/servicer
Dynamic delinquencies	Three-month rolling average of delinquencies (excluding 120+ days past due) exceed 1.5% of the outstanding portfolio balance.
Cumulative defaults	'120+ days past due' delinquencies over the securitised asset balance (initial portfolio plus replenishments) exceeds the following ratios in the respective period since closing date: 1.0% in the first three months; 1.25%, first six months; 1.5%, first nine months; 1.75%, first 12 months; 2.0%, first 15 months; 2.25%, first 18 months; 2.5%, first 21 months; and 2.75%, first 24 months.
Interest deficiency ledger (IDL)	The interest deficiency ledger shows a debit of more than 0.5% for more than two consecutive payment dates.
Principal deficiency ledger (PDL)	The principal deficiency ledger shows a debit of more than 0.25% for more than two consecutive payment dates.
Reserve fund	Reserve fund is not at the required level on two payment dates in total.
Excess spread	Excess spread is below 1.1%
Portfolio balance	Balance of performing assets is below 90% of the closing portfolio balance on two consecutive preceding payment dates.

Figure 7: Early-amortisation triggers related to the originator, servicer and assets

In addition, the revolving period ends if the servicer enters bankruptcy or resolution proceedings or is replaced as servicer. The amortisation phase is also triggered by a change in tax rules that adversely affects the further assignment of credit rights.

3.3.2. Portfolio- and asset-level covenants

Transaction covenants adequately limit the migration of portfolio characteristics over the replenishment period. Figure 8 and Figure 9 summarise the main asset-level and portfolio-level covenants, respectively.

Asset covenants	Restriction
Obligor nature	Lessees cannot be consumers or affiliates of the originator.
Contract purpose	Leased objects must be light vehicles (new or used), machinery and equipment, trucks and trailers, or other vehicles.
Maturity	Maximum maturity is 72 months at origination and 71 months at cut-off date.
Interest rate and margin	Contracts yield floating rate indexed to one-month Wibor with a minimum margin of 1.75%.
Payment frequency	Receivables are amortising and payable monthly.
Overdue contracts	Lessees cannot be more than seven days overdue on balances greater than PLN 500.

Figure 8: Main asset level covenants – applicable for entire portfolio from closing



Portfolio level covenants ensure a minimum granularity of the portfolio and limit the potentially adverse impact on portfolio performance from loan restructurings.

Figure 9: Portfolio	level covenants -	applicable for e	entire portfolio	from closing

Portfolio covenants	Limit	Current portfolio as of 18 August 2019
Net present value of all purchased receivables for which residual value is higher than 35% of the original lease balance at origination*	6%	4.4%
Largest lessee group	0.35%	0.35%
10 largest lessee groups	3%	2.18%
50 largest lessee groups	9%	5.80%
Cars – used	25.0%	23.0%
Trucks and trailers	12.5%	11.1%
Machinery and equipment	27.5%	23.2%
Other assets	5%	3.5%
Minimum WA margin over one-month Wibor	3%	3.3%
Maximum leases related to a single postcode region	23%	19.2%
Largest activity sector	25%	22.8%
Single brand	10%	8.1%
Weighted average life (months)	24	20.5
Amount of leases with amortisation profile not consisting of only fixed instalment leases	1.0%	1.0%

* Please note, the residual value is not securitised

3.4. Amortisation profile

The expected amortisation profile reflects the replenishment period as well as covenants regarding the maximum maturity, the weighted average remaining term, and the assets' amortisation scheme. Figure 10 shows the evolution of the five portfolio segments during the revolving period, which we considered as part of our analysis of the portfolio at the start of the amortisation period. We eventually expect replenishment criteria to lead to a higher share of machinery and equipment, other vehicles, and trucks and trailers.

Figure 10: Expected portfolio amortisation profile (0% prepayment, 0% defaults)



The rated notes have a short exposure to both counterparty risk and possible macroeconomic decline



3.5. Portfolio modelling assumptions

Figure 11: Portfolio modelling inputs for expected portfolio at end of revolving period

	Portfolio
Point-in-time default rate	3.5%
Coefficient of variation	70.0%
Base case recovery rate	66.7% ¹
AAA rating-conditional recovery rate	13.2%
Constant prepayment rate, low	0.0%
Constant prepayment rate, high	8.0%

3.5.1. Default rate analysis on portfolio

We calibrated the portfolio point-in-time default rate and recovery assumptions based on 2011-17 vintage data for the five sub-segments. The vintage data reflect the performance of lease receivables sold to Roof Poland Leasing 2014 DAC. This assumption is valid because the Roof transaction's origination and underwriting standards were taken over by PKOL upon its merger with Raiffeisen Leasing Poland (RLPL) in 2017. The securitised lease receivables follow the same or better (minimum PKOL score or rating) eligibility criteria and the origination channels are the same.

The modelling assumptions are adjusted for potential portfolio migration during the revolving period. The most relevant data used for the analysis is shown in Figure 17 to Figure 26 on pages 200 to 23.

3.5.2. Recovery rate

We derived the base case recovery rate using vintage data, considering recoveries accumulated within three years after a default. We estimate the recovery lag to be 24 months.

The recovery data include sales proceeds from leased assets. The originator's pledge over leased assets to the issuer's benefit is credit-positive. In case of the originator's insolvency, any sales proceeds from the leased assets can be used to satisfy claims on behalf of the issuer resulting from the purchased receivables and the linked servicer obligations.

The class A analysis disregarded the originator's pledge as it can be declared ineffective if established one year before the petition to declare bankruptcy is filed (which is the case when filed shortly after transaction closing date). For the class B analysis, we considered the asset sale proceeds as the originator's insolvency is sufficiently remote given the assigned class B rating.

Our assumptions also reflect observed cure rates, as vintage data also include cash flow from lease receivables that had technically defaulted but resumed making regular payments.

Our portfolio modelling used fixed recovery rate assumptions (derived from the vintage data analysis), which were then stressed with haircuts based on the target rating of the rated notes.

3.5.3. Cure rate

PKOL provided historical data on the share of leases that were reactivated during the hard-collection phase, i.e. more than 120 days past due, the default definition of the

Replenishments increase portfolio risk horizon

Analysis incorporates ratingconditional recovery assumptions

¹ For the analysis of the class A we relied on recovery proceeds and disregarded asset sale proceeds, i.e. 22% recovery rate in the base case and 13.2% AAA rating-conditional recovery rate.

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transaction. However, this data (2011-18) is very volatile. We estimate a conservative 10% cure rate for the portfolio based on the share of '120 days past due' delinquent assets that technically defaulted but quickly resumed making regular payments. This cure rate was assumed for all rating stresses.

Constant prepayment rate (CPR)

We tested the performance of the rated notes assuming 0% and 8% constant prepayment rates. The average constant prepayment rate (annualised) of PKOL's historical information is below 1.5%.

4. Financial structure

4.1. Capital structure

Two classes of notes were issued. Class A and B issuance proceeds together with the junior funding (funded by the subordinated loan) were used to purchase the initial portfolio of assets. The subordinated loan provided by PKOL is also used to fund a cash reserve and bears any upfront costs.

All classes pay a quarterly coupon of three-month Wibor plus margin. Unused excess spread is paid to subordinated items after the replenishment of the reserve fund and the clearance of the interest deficiency ledger and principal deficiency ledger (if applicable). The amortisation of the notes will not start until the end of the revolving period, which is two years after the closing date, or earlier if triggered by events. The pass-through amortisation is pro-rata between class A and class B but switches to strictly sequential if certain amortisation triggers are hit. In this case, class B would not receive any principal until the class A notes are fully amortised.

4.2. Reserve fund (RF)

The structure features a fully funded reserve fund provided by PKOL, with an initial balance of PLN 58.8m. The RF target is 2.35% of the aggregated notes and the subordinated loan part used to purchase the initial receivables. This RF provides liquidity support for all note classes and can cover losses at transaction maturity.

On the final maturity date, the RF can also be used to cover shortfalls in the collections available to pay the outstanding principal amount. The RF cannot be used to fund replenishments and amortises with the aggregate balance of outstanding notes and the subordinate loan to a minimum of PLN 4m.

The RF pays fees and interest (class A and class B) for up to two payment periods at the current level of three-month Wibor or below; and up to one payment period at a three-month Wibor at three times the current level.

Excess cash in the reserve account, i.e. resulting from a reduction in required amounts, is not available to the transaction's IPL or PDL mechanism but paid to the originator.

4.3. Priority of payments

The priorities of payment protect class A and class B noteholders by providing liquidity for timely interest payments and trapping excess spread to cover principal losses from defaults.

The structure is simple. An apparent complication consists of the separate interest and principal waterfalls and separate deficiency ledger mechanisms. This is addressed by the priorities of payment being well interconnected and behaving like a combined waterfall. Principal collections can therefore cover interest-related cash shortfalls, and excess spread can restore collateralisation should an asset default result in a principal shortfall. These two mechanisms are monitored via an interest deficiency ledger (IDL) and a principal deficiency ledger (PDL), respectively (Figure Figure 9).

Scope tested the class A notes against the most conservative 0% CPR assumption

Fully funded reserve fund provides 2.35% credit enhancement

The interconnected priorities of payment is the main protection against payment interruption

Figure 12: Priorities of payments and available funds

	Interest priority of payment	Principal priority of payment
Available funds	 Interest collections from assets (including penalty interest) All recoveries Interest earned on issuer accounts Cash drawn from the cash reserve to cover up to item 4 in the interest waterfall Borrowed principal reserve to cover up to item 4 in the interest waterfall (this amount is debited to the IDL) 	 Principal collections from the assets; In relation to performing receivables: a) insurance payments; b) sale proceeds from leased objects; Amounts allocated to clear the IDL (cash diverted from the interest priority of payments under item 6); Amounts allocated to clear the PDL (cash diverted from the interest priority of payments under item 7); and Upon the final maturity date or upon such other date as the issuer shall redeem all of the notes in full, outstanding balance of the reserve fund
Replenishment period	Monthly replenishment dates: No application	 Monthly replenishment dates: 1) Principal lent to interest waterfall (this is debited to the IDL) 2) Purchase of new receivables
	Quarterly payment dates:1)Taxes and expenses2)Servicer fees (back-up servicer fees if applicable)3)Class A-1 and A-2 interest (pro-rata)4)Class B interest5)Reserve fund replenishment6)Allocation to clear IDL (credit to IDL)7)Allocation to clear PDL (credit to PDL)8)Subordinated items	 Quarterly payment dates: 1) Principal lent to interest waterfall (this is debited to the IDL) 2) Purchase of new eligible receivables
Amortisation period	Quarterly payment dates:1)Taxes and expenses2)Servicer fees (back-up servicer fees if applicable)3)Class A-1 and A-2 interest (pro-rata)4)Class B interest5)Reserve fund replenishment6)Allocation to clear IDL7)Allocation to clear PDLSubordinated items	 Principal lent to interest waterfall (this is debited to the IDL) If no sequential amortisation event triggered: class A and class B principal pro-rata If sequential amortisation event triggered: a) class A principal (in full) b) class B principal (in full) Subordinated payments
Post- enforcement	 The post-enforcement priority of payments is triggered by and A-2 notes. 1) Taxes and expenses 2) Servicer fees (back-up servicer fees if applicable) 3) Class A-1 and A-2 interest (pro-rata) 4) Class A-1 and A-2 principal (in full) 5) Class B interest 6) Class B principal (in full) 7) Subordinated items 	the issuer's default on its obligations with respect to the class A-1

4.4. Amortisation and provisioning

The combination of sequential-amortisation triggers, the reserve fund and excess spread are effective in protecting the class A notes. Class B benefits from the reserve fund, excess spread and pro-rata amortisation as long as sequential amortisation triggers are not hit. Sequential amortisation would expose the class B notes to risks during the tail end of the portfolio's life because the class does not benefit from significant subordination



Class A benefits from sequential amortisation after trigger breach

from junior funding. At this point, lessees with the longest contracts (i.e. up to 72 months) would have the greatest impact on class B performance.

The amortisation of all classes are pro-rata but become strictly sequential if certain triggers are hit (Figure 13). Both class A and class B rank senior to the other instruments used to acquire portfolio assets. The amount allocated to replenishments – and to principal amortisation after the replenishment period – equate to the monthly reduction in the portfolio's performing balance, less any principal proceeds allocated to the interest waterfall, plus any proceeds from the clearance of the IDL and PDL from applying the interest waterfall.

Figure 13:	: Sequentia	al-amortisation	triggers
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Trigger	Description
Dynamic delinquencies	Three-month rolling average of delinquencies (excluding 120+ days past due) exceeds 1.7% of the outstanding portfolio balance.
Cumulative defaults	'120+ days past due' delinquencies over the securitised asset balance (initial portfolio plus replenishments) exceed the following ratios for the respective period since closing date: 1.5% in the first three months; 1.75%, first six months; 2.25%, first nine months; 2.5%, first 12 months; 2.75%, first 15 months; 3.0%, first 18 months; 3.25%, first 21 months; 3.5%, first 24 months; and 4.0% thereafter.
Interest deficiency ledger (IDL)	The interest deficiency ledger shows a debit of more than 0.75% for more than two consecutive payment dates.
Principal deficiency ledger (IDL)	The principal deficiency ledger shows a debit of more than 0.5% for more than two consecutive payment dates.
Reserve fund	Reserve fund is not at the required level on four payment dates in total.
Excess spread	Excess spread is below 0.9%.

Defaults result in an early capture of excess spread. The transaction defines defaults as lease receivables more than 120 days in arrears, or those subjectively considered unrecoverable by the servicer.

4.4.1. Replenishment and amortisation period

The replenishment covenants and the interconnected priorities of payment ensure proper collateralisation during the revolving period. During the amortisation period, the interconnected priorities of payment results in the accelerated amortisation of the notes, using excess spread to cover portfolio defaults and the RF to repay the rated notes at the end of the transaction. These mechanisms are captured in the modelling and reflected in the ratings.

4.5. Matched interest rates

Interest rate risk is limited by a natural hedge arising from the floating-rate nature of both assets and liabilities, all referenced to Wibor. All assets yield interest indexed to one-month Wibor, which is highly correlated with the notes' three-month Wibor. We accounted for any negative impact from basis mismatches by reducing the interest generated from the pool over the life of the transaction by 50 bps.

We expect repayments and replenishments to reduce available excess spread, due to the covenant on replenishment interest. Our analysis considered the minimum spread of the portfolio assets at one-month Wibor that is available during the notes' expected life, which results in an excess spread of 0.26%. This represents a significant stress, compared to the 1.07% excess spread available at closing. All calculations of excess spread assume stressed senior costs of 1%.

Portfolio covenants and priorities of payment ensure notes' collateralisation

Interest type and payment frequency accommodate well with the liabilities



4.6. Accounts

The issuer has a treasury account held by Elavon Financial Services DAC, which holds collections from the assets as well as the reserve fund. The servicer transfers the portfolio collections on one designated day per week.

The transaction is exposed to Elavon Financial Services DAC as the account bank (see Counterparty Risk section), though we take comfort from the bank's public ratings and replacement trigger. Any negative carry introduced by this account is covered by credit enhancement.

5. Originator and seller

PKOL was set up in 1999 as a subsidiary of PKO BP. In December 2016, PKOL merged with Raiffeisen-Leasing Polska (RLPL), which created the largest leasing company in Poland, with services for all types of clients.

The transaction benefits from the merger as the portfolio's lease receivables follow the same origination standards and eligibility criteria as applied to those originated and sold to the Roof Poland 2014 DAC transaction, which is performing well.

PKOL is an experienced originator of lease receivables in Poland and market leader in the financing of light vehicles and machinery and equipment (by volume in 2018), a position it defends by providing a wide variety of leases via several distribution channels.

Distribution channels include both online and physical presences at the point of the vehicle's sale. Moreover, the company cooperates with manufacturers to provide the financing necessary to sell a vehicle.

The company offers three business lines for SMEs and corporates: i) passenger cars and light trucks (<3.5 tones); ii) heavy transport (trucks and trailers); and iii) machinery and equipment. The originator seeks to grow in the machinery and equipment segment as well as to expand to agriculture and medical leases, a sub-category of machinery and equipment. The company will continue to focus on micro SME clients, a higher-margin segment.

PKOL's functions, systems, processes and staff allow for efficient lending. On 10 April 2019, we met with PKOL executives in Warsaw to gain a better understanding of the underwriting and servicing aspects relevant to the analysis.

PKOL's interests are aligned with those of the noteholders. The company has provided a subordinated loan to fund the reserve fund and the junior funding, giving it a significant subordinate interest in the transaction.

5.1. Sanctioning and underwriting

PKOL's sanctioning and underwriting processes are automated, which reduces response times. Underwriting directives of PKOL are of sufficient quality, with a focus on the critical points: i) the lessor's economic and financial standing; ii) the leased objects and suppliers; and iii) transaction risk. Sanctioning is subject to exposure and risk limits set for each client.

Sanctioning power is delegated and segmented. Smaller loans are therefore given less scrutiny and the simplest transactions gain automatic pre-approval. For micro and corporate clients, PKOL's scoring system automatically approves or rejects around 60% of lease applications (as of Q4 2018); the remainder require additional credit committee approval. Overall, around 7%-13% of applications are rejected depending on the client type; 21% to 25% are rejected by volume.

PKOL's functions, systems, processes and staff are adequate



Adequate and proactive servicing and recovery processes

PKOL regularly reviews the performance of its origination processes to ensure originated volumes stay within set targets.

5.2. Servicing and recovery

PKOL's recovery strategy is pro-active and focuses on customer relations, aimed at finding a joint solution and avoiding immediate repossession of the leased object. Once a solution is agreed, restructured deals are monitored. Unresolved cases are escalated quickly to repossession.

PKOL's loan servicing and management of non-performing leases are adequate. The approach is reasonably proactive and diligent, with actions initiated on the seventh day after a payment is missed. Until 65 days past due, contracts can be terminated, with the full amount becoming payable. Contract termination triggers recovery processes, which includes the repossession of the leased object. In the normal course of business, outstanding debt is offset against the sales proceeds of the leased object. Any marginal claim is then recovered from the lessor, via legal proceedings if necessary. This approach has resulted in many customers regaining performing status: over half of the contracts were reactivated (by number and volume) before internal collection processes had to be initiated.

Recovery processes target both the obligor and the vehicle. The company works with both internal and external collectors. PKOL uses all means at its disposal to monetise collected titles, including portfolio sales and auctions of repossessed vehicles.

Collections are performed through direct debits on lessor accounts (only 2%), or transfers by lessors directly into contract-specific sub-accounts, which PKOL created with the support of PKO BP. Outside of these methods, the identification of lessor payments may require a manual reconciliation. This generates liquidity risk as the process has to be performed within two business days. However, the risk is immaterial because very few customers would be affected.

PKOL's servicing and recovery strategy is consistent with its business model, which focuses on the efficient handling of high volumes.

6. Quantitative analysis

We have assigned an AAA_{SF} rating to the class A notes based on our cash flow analysis. This result is driven by the transaction's credit enhancement mechanisms (sequentialamortisation trigger) and resilience to default, interest and prepayment stresses. The class A itself also shows resilience to any deterioration in recovery rates.

The class B notes were rated BB-_{SF}, also based on our cash flow analysis. This result is supported by the recoveries from the sale of leased assets.

Both results are supported by solid macroeconomic conditions combined with the short lives of all rated classes, which gives significant comfort in relation to a hypothetical negative macroeconomic development in Poland over the next five years.

We used our large homogenous portfolio approximation approach (LHPA) to model 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 on the whole portfolio level, based on the composition of the portfolio, i.e. lease receivables to SMEs for the purchase of new or used vehicles, trucks and trailers, machinery and equipment and other vehicles (including on wheels).

We did not apply long-term adjustments to the default rate and coefficient of variation, given the historically stable economic expansion in Poland.



Scope used a bespoke cash flow model to analyse this transaction

Leasing ABS

We calculated the probability-weighted loss for the rated notes using our cash flow model combined with the portfolio default distribution (inverse Gaussian). The cash flow tool also produced the expected weighted average life for the rated notes.

We considered a front-loaded default-timing term structure. Back-loaded default scenarios are not as severe owing to the fast amortisation of the portfolio. The cumulative default-timing assumptions are shown on Figure 14 and represent the assumed default timings for the portfolio when the replenishment period ends. These assumptions imply a front-loading of delinquencies, starting on the first month of the life of the transaction. The defaults are classified as 120+ days past due, in line with definitions in the documentation.





Front-loaded default timing considered

Figure 15 shows the losses of the rated notes at all portfolio default rates. The chart shows how credit enhancement and excess spread protect the rated notes as well as recovery proceeds in case of default.





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

7. Rating stability

7.1. Rating sensitivity

We tested the resilience of the rating against deviations of the main input parameters: the portfolio mean default rate and the portfolio 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 respective model-implied ratings for classes A and B change when the portfolio's expected default rate is increased by 50% and the portfolio's expected recovery rate is reduced by 50%, respectively:

- Class A, rated AAA_{SF}: sensitivity to probability of default, two notches; sensitivity to recovery rates, zero notches.
- Class B, rated BB-SF: sensitivity to probability of default, one notch; sensitivity to recovery rates, one notch.

7.2. Break-even analysis

The resilience of class A and class B ratings is evident in the break-even default rate analysis. The class A would have no losses at portfolio lifetime default rates of: i) 25.7% or lower, under a zero-recovery rate assumption; or ii) 28.2% or lower, under the portfolio's AAA_{SF} recovery rate assumption of 13.2%, compared to a base case of 22.0%. The class B would have no losses at portfolio lifetime default rates of: i) 1.0% or lower, under a zero-recovery rate assumption; or ii) 1.6% or lower, under the portfolio's BB_{SF} recovery rate assumption of 62.3%, compared to a base case of 67.7%.

Figure 16: Break-even default rates as function of prepayments and recovery rates

Break-even default rate	0% constant prepayment rate			8% constant prepayment rate		
Portfolio recovery rate	13.2% (AAA _{SF} RR)	62.3% (BB _{SF} RR)	0.0%	13.2% (AAA _{SF} RR)	62.3% (BB _{SF} RR)	0.0%
Class A	28.3%	1.9%	25.6%	28.2%	1.9%	25.7%
Class B			1.1%			1.1%

Note: All results incorporate the stress that we apply for weak obligors at the end of the revolving period. We assumed a 0.25% upfront discount on the performing balance. For the analysis of the class A we also assumed that 1.35% of obligors will default within the first two months of the amortisation period and a further 0.25% discount on the performing balance accounting for commingling losses.

8. Sovereign risk

Sovereign risk does not limit the rating. The risks of an institutional framework meltdown or legal insecurity are immaterial for the rated notes, especially given their short expected weighted average lives.

The rating incorporates Poland's solid economic outlook. Even with a recent slowdown in economic momentum, GDP, wage levels and unemployment rates continue to improve. Polish lessees' financial performance are therefore likely remain stable during 2019, driven by an improving affordability of credit.

Challenges to growth are immaterial to the credit strength of the class A notes due to their short expected weighted average life. Further, a major adverse shift in investor confidence that could impede growth is unlikely to materialise in the short term.

9. Counterparty risk

The counterparty risk of the transaction supports the highest ratings. No counterparty exposures are excessive, i.e. if counterparty risk crystallises, a downgrade is limited to six notches.

9.1. Operational risk from servicer

Operational risk from PKOL as the servicer is mitigated in the transaction. Should PKOL need to be replaced as servicer, PKO BP, as back-up servicer facilitator, would select

No class A losses under portfolio default rates of 25.7% or lower at a zero-recovery rate

Sovereign risk does not limit the transaction's ratings



Servicer replacement unlikely

Commingling risk is not material for the rated notes

Set-off risk from the originator is

fully mitigated

another Polish institution within 30 business days. The back-up servicer facilitator is subject to a replacement trigger upon a deterioration of its credit quality.

Comingling risk from the exposure to the servicer is factored into the class A rating. The analysis considered PKOL's credit quality, the limited exposure and the short holding periods. We incorporate the potential loss from servicer commingling by deducting 0.25% from the performing portfolio for the class A analysis and 0% for class B analysis at the end of the revolving period. Our 0% class B assumption derives from the remoteness of such an event occurring at the assigned class B rating.

9.2. Commingling risk from account bank and paying agent

The rated notes have short expected weighted average lives, 3.3 years for the class A and 4.7 years for class B under 0% CPR, which also account for the length of the revolving period. The high credit quality of the account bank and paying agent, Elavon Financial Services DAC, makes the risk of commingling losses sufficiently remote as to be immaterial for the rated notes.

The risk is further mitigated since the account bank is subject to a replacement trigger upon a deterioration of its credit quality.

We assessed the credit quality of Elavon Financial Services DAC using public information as well as public ratings.

9.3. Set-off risk from originator

Set-off risk from the originator is immaterial in the context of this transaction. The originator is not a deposit-taking financial institution, and the lessees' claims against the lessor generally cannot be set off, except when pursuant to a mandatory rule of law.

10. Legal structure

10.1. Legal framework

This securitisation is affected by three different legal regimes. Receivables are originated and transferred under Polish law. The issuer is incorporated in Ireland and governed by English law. Any dispute regarding the English legal documents will be referred to and finally resolved through arbitration by the International Chamber of Commerce.

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

The nature and purpose of the vehicle and the legal structure of the issuer effectively result in a tax-efficient issuer. The tax opinions produced for the issuer also indicate that the transaction is tax-efficient, i.e. no taxes apply except for value-added tax on contracted services, which remain a cost for the issuer.

10.2. Asset replacement

PKOL will replace or repurchase any asset in the portfolio that does not comply with eligibility criteria in the documentation. We believe the risk that weaker assets are transferred to the final portfolio is covered by our mean default rate assumption for the portfolio.

10.3. Restructuring

The documentation allows the servicer to restructure the terms of portfolio leases if the amendments are permitted. This process would always follow the originator's standard processes, including on approvals. Restructured contracts with non-permitted amendments are considered a repurchase, and the seller has to pay the repurchase price to the issuer.

Limits protect economic balance of the transaction from restructurings



Tax efficient set-up; bankruptcy remote SPV

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

10.4. 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 supports our general legal analytical assumptions.

11. Monitoring

We will monitor this transaction based on the performance reports from the cash manager as well as 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 we applied our SME ABS Rating Methodology and Methodology for Counterparty Risk in Structured Finance, both available on our website, www.scoperatings.com.

PKOL provided us with default and recovery data, segmented by quarterly vintage of origination, referring to a '120 days past due' default definition. The default rate data covers the 2011-17 period and is generally very granular. This data represents the performance of receivables sold to the Roof Poland Leasing 2014 DAC transaction. This is appropriate because, due to the merger mentioned above, the rated transaction has eligibility criteria in line with or stronger than the Roof transaction, and former RLPL staff now work for PKOL. Recovery data refers to all recoveries during 2008-18. The data is split into two sets: recoveries with asset sale proceeds, and those without. The recovery data also reflects all originated leases (not only those sold to Roof Poland Leasing 2014 DAC) since this data is more granular.

I. Summary of portfolio characteristics

The analysis considers replenishment covenants, and the portfolio from 18 August 2019.

Key features	Closing portfolio as of 18 August 2019	Portfolio adjustments for replenishments ²
Originator (% of balance)	PKOL	
Closing date	26 September 2019	
Portfolio balance (PLN m)	2,500.0	2,494m ³
Number of assets	41,308	
Average asset size (EUR)	60,520	
Maximum asset size (EUR)	6,622,145	
Minimum asset size (EUR)	15.52	
Segment: new cars	39.3%	30.0%
Segment: used cars	23.0%	25.0%
Segment: trucks and trailers	11.1%	12.5%
Segment: machinery and equipment	23.2%	27.5%
Segment: other	3.5%	5.0%
Largest lessee group	0.35%	
10 largest lessee groups	2.18%	
Largest region	19.2% (Mazowieckie)	
Top 3 regions	40.3%	
Current WA margin	3.3%	3.0%
Loans in portfolio referencing 1-month Wibor (% of balance)	100.0%	
Amortising leases	100.0%	

² Weighted average life, seasoning and remaining term refer to the segments' profiles at the end of the 24-month revolving period.
³ Assuming an initial balance of PLN 2.5bn with undercollateralisation at start of redemption due to principal deficiency of 0.25% as per PDL earlyamortisation trigger. For the analysis of class A further 0.25% discount was considered accounting for expected loss from servicer commingling risk.



II. Vintage data provided by originator

PKOL provided '120 days past due' delinquency and recovery performance data for the five segments in the portfolio. This information formed the basis of 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 17: Light vehicles / new – 120dpd delinquency vintage data presented by originator



Figure 18: Light vehicles / new - 120dpd recovery vintage data presented by originator



SCOPE Polish Lease Prime 1 DAC Leasing ABS



Figure 19: Light vehicles / used - 120dpd delinquency vintage data presented by originator









Figure 22: Trucks and trailers – 120dpd recovery vintage data presented by originator





Figure 23: Machinery and equipment – 120dpd delinquency vintage data presented by originator





SCOPE Polish Lease Prime 1 DAC Leasing ABS



Figure 25: Other vehicles - 120dpd delinquency vintage data presented by originator

Figure 26: Other vehicles – 120dpd recovery vintage data presented by originator





Polish Lease Prime 1 DAC

Leasing ABS

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