

CREDIT OPINION

12 April 2019

New Issue

✓ Rate this Research

RATINGS

Addiko Bank AG

Domicile	Vienna, Austria
Long Term CRR	Ba3
Type	LT Counterparty Risk Rating - Fgn Curr
Outlook	Not Assigned
Long Term Debt	Not Assigned
Long Term Deposit	Ba3
Type	LT Bank Deposits - Fgn Curr
Outlook	Stable

Please see the [ratings section](#) at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Swen Metzler, CFA +49.69.70730.762
VP-Sr Credit Officer
swen.metzler@moodys.com

Alexander Hendricks, +49.69.70730.779
CFA
Associate Managing Director
alexander.hendricks@moodys.com

Carola Schuler +49.69.70730.766
MD-Banking
carola.schuler@moodys.com

Addiko Bank AG

Credit analysis following rating assignment

Summary

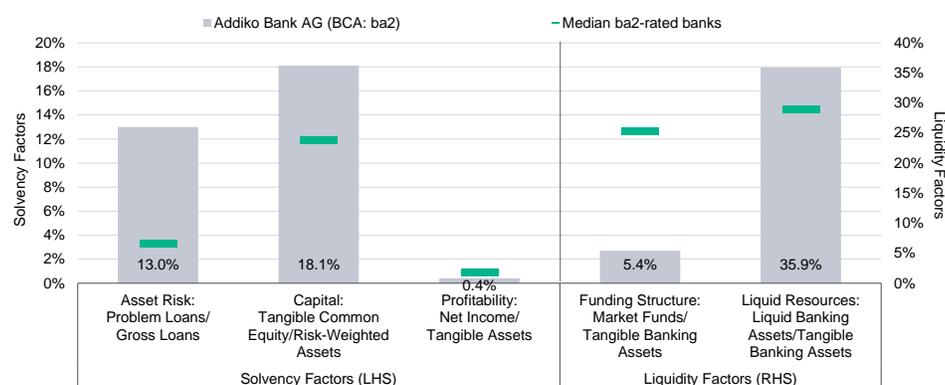
On 4 April, we assigned Ba3 (Stable)/NP deposit ratings to [Addiko Bank AG](#) (Addiko). We further assigned a ba2 Baseline Credit Assessment (BCA) and Adjusted BCA, Ba3/NP Counterparty Risk Ratings, and Ba2(cr)/NP(cr) Counterparty Risk Assessments to Addiko.

Addiko's ratings reflect: 1) the bank's ba2 BCA and adjusted BCA; and 2) the results of our Advanced Loss Given Failure (LGF)¹ analysis, positioning the deposit ratings one notch below the bank's ba2 Adjusted BCA. We assume a low probability that Addiko would receive support, if necessary, from its owners, Advent International (Advent) and [European Bank for Reconstruction and Development](#) (EBRD, Aaa Stable)², as well as a low probability of support from the [Government of Austria](#) (Aa1 Stable)³, together resulting in no further uplift to Addiko's deposit ratings.

Addiko's ba2 BCA captures its business focus on South-Eastern European (SEE) countries, with close to 70% of assets in EU countries Croatia (Ba2 Stable) and Slovenia (Baa1 Stable), and around 30% in EU accession countries Serbia (Ba3 Stable), Bosnia and Herzegovina (B3 Stable), Montenegro (B1 Positive), which are economically weaker and more volatile than Austria, the bank's domicile. The BCA also reflects sound capitalization; a funding structure reliant mostly on (retail) deposits; weaker – yet improving - asset quality; only moderate risk-adjusted profitability, as well as limited track record and financial history for its newly adopted focus on unsecured consumer finance and SME lending.

Exhibit 1

Rating scorecard – key financial ratios



Note: Factors for asset risk and profitability reflect the weaker of last reported (2018) and 3-year average for the period 2016-18; capital factor is as of end-December 2018; all other factors are as of end-2018.

Source: Moody's Financial Metrics

Credit strengths

- » Sound funding profile supported by sizeable deposits which drives low dependence on market funding
- » Sound and adequate capitalization
- » Adequate liquidity buffers but ability to shift among subsidiaries is limited due to local regulatory restrictions

Credit challenges

- » "Moderate -" asset-weighted macro profile reflecting Addiko's focus on five SEE countries
- » High level of problem loans with some concentrations in the bank's non-core credit exposures, compared with very granular unsecured consumer loans, which however exhibit limited financial history
- » Only moderate risk-adjusted profitability with limited track record of resilience in an economic downturn

Rating outlook

The outlook on Addiko's ratings is stable, reflecting our view that the bank will be able to sustain achieved solvency improvements and maintain the current funding structure over the next 12-18 months.

Factors that could lead to an upgrade

An upgrade of Addiko's ratings could be prompted by: 1) a higher BCA or adjusted BCA; 2) a change in Addiko's liability structure that could prompt a better result from our Advanced LGF analysis, for example through significantly higher volumes of institutional or junior deposits and/or the issuance of senior (or junior-senior) unsecured bonds

Upward pressure on Addiko's BCA could be exerted if the bank's macro profile would improve, or if the bank were to develop a sound financial track record of successfully divesting non-core legacy assets and shifting funds in core lending activities to retail and SME customers, thereby improving its asset quality without compromising its level of risk coverage, as well as reducing concentration risks to legacy corporate customers, in combination with improving regulatory capital at single entity and group level.

Factors that could lead to a downgrade

A downgrade of Addiko's ratings could be prompted by a BCA downgrade.

Downward pressure on Addiko's BCA could be exerted in the event of: 1) a reversal of the positive trend in asset quality, which could be triggered by a weakening of SEE's macroeconomic growth prospects; 2) unexpected losses, including those from foreign currency lending and pending legal cases, which may negatively impact Addiko's capitalisation; 3) a significant deterioration in its funding profile, including unexpected deposit outflows and a decline in liquidity buffers.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

Addiko Bank AG (Consolidated Financials) [1]

	12-18 ²	12-17 ²	12-16 ²	12-15 ²	CAGR/Avg. ³
Total Assets (EUR billion)	6.2	6.5	7.2	7.4	-6.4 ⁴
Total Assets (USD billion)	7.0	7.8	7.6	8.1	-7.8 ⁴
Tangible Common Equity (EUR billion)	0.8	0.8	1.0	0.7	-9.2 ⁴
Tangible Common Equity (USD billion)	0.9	1.0	1.0	0.8	-10.4 ⁴
Problem Loans / Gross Loans (%)	9.3	13.5	16.2	31.9	19.1 ⁵
Tangible Common Equity / Risk Weighted Assets (%)	18.1	17.4	21.7	13.8	18.3 ⁶
Problem Loans / (Tangible Common Equity + Loan Loss Reserve) (%)	32.3	45.1	45.9	112.5	63.6 ⁵
Net Interest Margin (%)	2.6	2.3	2.1	2.3	2.3 ⁵
PPI / Average RWA (%)	0.9	0.6	0.2	-4.6	-0.4 ⁶
Net Income / Tangible Assets (%)	1.0	0.6	-0.4	-8.8	-1.8 ⁵
Cost / Income Ratio (%)	84.1	87.9	95.3	212.6	111.7 ⁵
Market Funds / Tangible Banking Assets (%)	5.4	5.7	5.0	6.5	6.4 ⁵
Liquid Banking Assets / Tangible Banking Assets (%)	35.9	40.7	46.3	37.4	38.6 ⁵
Gross Loans / Due to Customers (%)	86.1	83.7	96.2	122.1	105.9 ⁵

[1] All figures and ratios are adjusted using Moody's standard adjustments. [2] Basel III - fully-loaded or transitional phase-in; IFRS. [3] May include rounding differences due to scale of reported amounts. [4] Compound Annual Growth Rate (%) based on time period presented for the latest accounting regime. [5] Simple average of periods presented for the latest accounting regime. [6] Simple average of Basel III periods presented.

Source: Moody's Financial Metrics

Profile

Addiko is fully-owned by Al Lake (Luxembourg) S.à r.l. (Al Lake), a holding company, which is indirectly owned by investment funds advised by Advent, a global private equity investor and the EBRD. With total assets of €6.2 billion as of 31-December 2018, Addiko specialises in consumer and SME lending in SEE countries Croatia, Slovenia, Serbia, Bosnia and Herzegovina, Montenegro, and it is providing online deposit services in Austria and Germany.

Addiko has sizeable activities in Croatia, accounting for 44% of its consolidated assets as of end-2018 and Slovenia (24%), while its exposures in Bosnia and Herzegovina (13%), Serbia (12%), and Montenegro (4%) are smaller. Headquartered in Vienna, Austria (Addiko's unconsolidated assets accounted for 24% of consolidated assets, before the recognition of consolidation effects), Addiko is a pure-play bank specialist in the SEE region and was formerly owned by Hypo Alpe-Adria Bank International AG.

Detailed credit considerations

High level of problem loans and gradual transition from legacy exposure to core lending activities

Our assigned b3 score for Asset risk is in line with Addiko's initial score and reflects a combination of offsetting factors, namely (1) our expectation of further moderate incremental improvement of its asset quality, as well as (2) Addiko's moderate concentration risks in its non-core legacy exposures; and (3) limited financial history of newly underwritten core exposures from unsecured consumer loans. The initial score is based on the weaker of last reported (end-December 2018) and a three-year average (2016-18) of nonperforming loans (NPLs), in line with our methodology, thereby deviating materially from the underlying current credit quality, following a significant reduction of NPLs in the past years.

Since 2015, Addiko has benefited from improving asset quality in its core (consumer and SME lending) and non-core exposures (mortgages, large corporates, public finance), triggering a decline in problem loans to gross loans to 9.3% at end-2018 from 13.5% in 2017 (2015: 31.3%). The majority of the group's problem loans relate to the bank's activities in Croatia and Bosnia and Herzegovina. As the bank gradually transitions to core loans from legacy exposures, we expect moderate incremental improvements of its asset quality and a stable level of loan loss reserves which represented around 74% of problem loans at end-2018 (2017: 69%).

Addiko exhibits concentrations in its performing and non-performing legacy exposures, which mainly arise from large corporate customers. These exposures come with higher average ticket sizes, compared with the bank's highly granular core activities, with average volumes of around €7,000 for unsecured consumer loans and less than €250,000 for small and medium sized entities. Our

assessment around concentrations risk also takes into account that impaired exposures are adequately provisioned for. At end-2018, non-core activities included €873 million of mortgages (2017: 999 million) and €777 million large corporate and public sector loans (2017: 744 million).

At end-2018, Addiko's net loans from core activities accounted for €2.1 billion (2017: €1.8 billion), around half of its total loans. We believe that the asset quality of these exposures will benefit from the bank's newly established underwriting policies, close risk monitoring, as well as strong receivables collection management and the ability to sell problematic loans. The latter is fully embedded into Addiko's risk management and may allow the disposal of impaired loans under existing agreements with third parties, if permitted by local regulation. However, while vintages of newly underwritten core loans to date exhibit low problem loan formation, the bank has still to demonstrate its ability to maintain the quality of its unsecured consumer loans through an adverse cycle of economic environment.

Further, we believe that Addiko's credit profile includes legal risks that arise from (1) cases for damage claims; and (2) court rulings favouring consumers for Swiss-franc denominated loans. Legal risks affected the bank in 2015-17 when countries like Croatia and Montenegro amended their laws for foreign currency lending and introduced favorable terms for FX conversion, costing the bank around €258 million in compensation. However, we believe these risks are balanced by adequate legal provisions and a very high percentage of previous verdicts which were in favor of Addiko.

Adequate capital but moderate stressed capital resilience and limited earnings retention

We reflect Addiko's adequate capitalisation in the assigned baa3 Capital score, which includes a downward adjustment from the bank's a3 initial score. Our assessment takes into account Addiko's moderate stress capital resilience, reflecting its high vulnerability from unsecured lending in more volatile, less developed SEE countries, as well as limited earnings retention because of our expectations around the bank's future dividend policy where we assume a continued high-pay-out of profits. We assess Addiko's capitalisation adequate in the context of the risks that the bank has taken in the field of unsecured consumer and SME lending, supported by a mild increase in the bank's Tangible Common Equity (TCE) to risk weighted assets (RWA) ratio in 2018 to 18.1% from 17.4% in 2017 (end-June 2018: 17.7%). Our assessment also takes into account Addiko's sufficient distance to regulatory thresholds at group level of about three percentage points for total capital, which we expect to remain at or below that buffer level.

We expect that the bank's Common Equity Tier 1 (CET1) ratio will remain broadly stable at around 17% in 2019, compared with 17.7% as of December 2018, which includes the recognition of net income for 2018 and potential dividend payments. During 2018, Addiko's CET1 capital benefited from a contribution of €68 million by Al Lake through a conversion of existing Tier 2 capital. As the bank executes on its strategic growth plans until 2023, we expect a moderate decline in Addiko's capital ratios, reflecting the balance of freed up capital from maturing legacy assets that is gradually invested into core unsecured loans.

We further expect that the bank will maintain its sufficient capital buffers to regulatory minimum requirements at group level, which the Austria's Financial Market Authority has set to 11.1% CET1 and 14.6% total capital ratio, including the phased-in capital conservation buffer of 1.875%, at end-2018. Despite the absence of profit and loss transfer agreements, Addiko has developed a track-record of upstreaming dividends to Al Lake and from its SEE subsidiaries, which mainly relates to Croatia, Slovenia, and Serbia and adds some financial flexibility at consolidated group level.

Addiko's leverage ratio, based on consolidated numbers and our leverage metric of tangible common equity to tangible assets, is sound at 13.7% at the end of December 2018 (2017: 12.5%). Addiko uses the credit risk standardised approach (CSA) for measuring the credit risk in its loan assets, which explains a relatively high risk density, measured by comparing risk-weighted assets to total assets, of 76% at end-2018 (2017: 72%).

Moderate profitability which will benefit from the shift to core activities but remains highly sensitive to credit costs

We assign a ba3 Profitability score, one notch above Addiko's b1 initial score. Our assessment takes into account (1) the bank's continued improvement in profitability from loss-making periods in 2016 and 2015; (2) Addiko's shift into higher margin unsecured consumer and SME lending; (3) its improved and streamlined operating platform, including centralized management and the provision of shared services across the group; and (4) the benefit for future pre-tax profits that arises from the presence of deferred tax assets on existing tax loss carryforwards.

We believe that Addiko's business model is well prepared to benefit from its high degree of digitalisation, leading to low incremental costs for additional revenue. This view is based on the successful transformation of Addiko's operating model since the take-over by Advent and EBRD in mid-2015. Due to its focus on unsecured consumer and SME lending, Addiko's business model exhibits a high net interest margin (NIM), compared with those of universal banks and we expect the margin to increase further as Addiko expands its core activities. At end-2018, Addiko's NIM was 2.6%, compared with 2.3% in 2017 (2016: 2.1%) based on our calculation, supporting the increase in net interest income to €173 million from €165 million (2016: €159 million). Net interest income is Addiko's main income source, accounting for around three quarters of its revenue.

After-tax income was €104 million in 2018, an improvement from €42 million in 2017 and a net loss of €24 million in 2016 and a net loss of €659 million in 2015, underpinning the successful turnaround of the bank's business model. The improving trend in profitability continued during 2018 compared with the prior year's period, supported by rising interest and fee income, as well as moderately declining operating expenses. For 2018, Addiko's pre-tax profit increased to €106 million from €22 million the year before, mainly because of reversals in low loan-loss provisions (LLP) of €5 million compared with an expense of €15 million, and the positive €61 million contribution from converting Tier 2 capital into common equity.

Addiko's risk-adjusted profitability is highly sensitive to the credit cycle in its SEE markets. For 2019-20, we expect low LLP because of these countries' benign economic conditions. That said, concentration risks, in particular to large corporate customers, may turn the bank vulnerable to single name risk. In 2017, Addiko's LLP of €15 million mainly reflected a charge for the default of a large corporate customer in Croatia.

Sound funding profile supported by sizeable deposits which drives low dependence on market funding

Addiko's sound funding profile is reflected in the assigned baa2 Funding Structure score, which is in line with the bank's initial score, and which strongly supports our assessment of the bank's standalone credit strength. Our view also considers a low concentration from the bank's largest depositors.

Addiko's lending activities are largely funded by customer deposits which, at €4.8 billion as of end-2018, accounted for 79% of its balance sheet (2017: 76%). Around 60% of the deposits were term deposits, and around 80% are euro denominated, followed by the Croatian kuna (HRK) and Serbian dinar (RSD).

Addiko's banking activities in Croatia exhibit a favorable net loan-to-deposit ratio of 66% as of end-December 2018 (2017: 61%). Slovenia, Addiko's second most important country of operation, exhibits a balanced mix of loans and deposits, at 87% in 2018 (2017: 86%), while this metric ranges between 75% to 94% for Bosnia and Herzegovina, Montenegro and Serbia (2017: 70%-97%). We expect that Addiko will be able to further expand its deposit base, while the successful collection of online-generated deposits in Austria and Germany (combined at around €360 million as of end-2018, compared with €409 million in 2017) will help to diversify Addiko's funding sources from the current SEE focus.

Our assessment of a low market funding dependence is underpinned by €314 million market funds, equivalent to 5% of assets as of end-2018, unchanged to 2017, and mainly comprising liabilities to financial institutions and the participation in repo funds (LTRO funds)⁴ transacted with the Slovenian National Bank, with maturities in 2020.

Adequate liquidity buffers but ability to shift among subsidiaries is limited due to local regulatory restrictions

Addiko's Liquid Resources score is ba1, which includes a downward adjustment from its baa3 initial score, reflecting our assessment of limited flexibility to move liquid assets among SEE subsidiaries. Our liquidity assessment takes into account Addiko's cash, interbank claims, and repo-eligible and unencumbered securities. This total accounted for 35.9% of total adjusted banking assets as of end-2018, a reduction from 40.7% in 2017.

Addiko maintains adequate liquidity buffers, as illustrated by its consolidated 150% liquidity coverage ratio (LCR) reported as of end-2018 (2017: 183%). Almost all of the bank's €1.15 billion securities portfolio was principally eligible as collateral at central banks. However, Addiko's securities portfolio is physically hosted in different SEE entities, which reduces the bank's flexibility to transfers, if need arises, because of local requirements. Around half of the securities are physically booked at Addiko's Croatian subsidiary, while only 10% of the securities are hosted at the Vienna-based parent bank.

Macro Profile of "Moderate –"

Addiko's assigned "Moderate –" macro profile reflects the asset-weighted average of its banking activities in Austria, Croatia, Slovenia, Serbia, Bosnia and Herzegovina, and Montenegro.

Support and structural considerations

Affiliate support

We believe that there is a low probability that Advent and the EBRD, Addiko's owners would support the bank in case of need, which does not result in any uplift for Addiko's ratings. Support from Advent and EBRD is illustrated by their degree of involvement in Addiko's strategy, management and operations, but we do not expect further capital injections, in case of need.

Loss Given Failure (LGF) analysis

Addiko is subject to the EU Bank Recovery and Resolution Directive (BRRD), which we consider to be an operational resolution regime. We expect Addiko Bank AG, the parent entity based in Vienna, Austria, to be resolved on its own and consider all SEE subsidiaries out of scope for the Austrian resolution authority. The application of a domestic resolution approach is in line with our standard assumption for cross-border banking groups.

Because Addiko is subject to an operational resolution regime, we apply our Advanced LGF analysis, considering the risks faced by the different debt and deposit classes across the liability structure, should the bank enter resolution. In line with our standard assumptions, we assume residual TCE of 3% and losses post failure of 8% of tangible banking assets, a 25% runoff in junior wholesale deposits and a 5% runoff in preferred deposits, and assign a 25% probability to deposits being preferred to senior unsecured debt. In addition, we assume a 10% share of wholesale deposits relative to total deposits, which is our central assumption for banks relying mostly on retail deposits.

For Addiko's Ba3 deposit ratings, our LGF analysis indicates a high loss given failure, resulting in a positioning of the rating one notch below the bank's ba2 Adjusted BCA.

Government support considerations

We apply a low probability of support by the Government of Austria in case of need and, hence, no rating uplift, because of Addiko's marginal importance for the Austrian banking system.

Counterparty Risk Ratings (CRRs)

Counterparty Risk Ratings (CRRs) are opinions of the ability of entities to honour the uncollateralised portion of non-debt counterparty financial liabilities (CRR liabilities) and also reflect the expected financial losses in the event such liabilities are not honoured. CRRs are distinct from ratings assigned to senior unsecured debt instruments and from issuer ratings because they reflect that, in a resolution, CRR liabilities might benefit from preferential treatment compared with senior unsecured debt. Examples of CRR liabilities include the uncollateralised portion of payables arising from derivatives transactions and the uncollateralised portion of liabilities under sale and repurchase agreements.

Addiko's CRRs are positioned at Ba3/NP.

The CRR is positioned one notch below Addiko's ba2 Adjusted BCA, reflecting the high loss-given-failure from the low volume of instruments that are subordinated to CRR liabilities in our Advanced LGF analysis.

Counterparty Risk Assessment (CR Assessment)

CR Assessments are opinions of how counterparty obligations are likely to be treated if a bank fails. They are distinct from debt and deposit ratings in that they: 1) consider only the risk of default rather than both the likelihood of default and the expected financial loss suffered in the event of default; and 2) apply to counterparty obligations and contractual commitments rather than debt or deposit instruments. The CRA is an opinion of the counterparty risk related to a bank's covered bonds, contractual performance obligations (servicing), derivatives (for example, swaps), letters of credit, guarantees and liquidity facilities.

Addiko's CR Assessments are positioned at Ba2(cr)/NP(cr).

Addiko's CR Assessments are positioned in line with its ba2 Adjusted BCA, based on the low buffer against default provided to the senior counterparty obligations by more junior instruments, such as senior unsecured debt and dated subordinated debt - including

the bank's junior deposits. To determine the CR Assessment, we focus purely on subordination, taking no account of the volume of the instrument class.

Methodology and scorecard

Methodology

The principal methodology we use in rating Addiko is [Banks](#), published in August 2018.

About Moody's Bank Scorecard

Our Scorecard is designed to capture, express and explain in summary form our Rating Committee's judgment. When read in conjunction with our research, a fulsome presentation of our judgment is expressed. As a result, the output of our Scorecard may materially differ from that suggested by raw data alone (though it has been calibrated to avoid the frequent need for strong divergence). The Scorecard output and the individual scores are discussed in rating committees and may be adjusted up or down to reflect conditions specific to each rated entity.

Rating methodology and scorecard factors

Exhibit 3

Addiko Bank AG

Macro Factors

Weighted Macro Profile	Moderate	100%
-------------------------------	-----------------	-------------

Factor	Historic Ratio	Initial Score	Expected Trend	Assigned Score	Key driver #1	Key driver #2
Solvency						
Asset Risk						
Problem Loans / Gross Loans	13.0%	b3	↓	b3	Sector concentration	Unseasoned risk
Capital						
TCE / RWA	18.1%	a3	← →	baa3	Stress capital resilience	Risk-weighted capitalisation
Profitability						
Net Income / Tangible Assets	0.4%	b1	↑	ba3	Expected trend	Return on assets
Combined Solvency Score		ba2		ba3		
Liquidity						
Funding Structure						
Market Funds / Tangible Banking Assets	5.4%	baa2	← →	baa2	Deposit quality	Extent of market funding reliance
Liquid Resources						
Liquid Banking Assets / Tangible Banking Assets	35.9%	baa3	← →	ba1	Intragroup restrictions	Stock of liquid assets
Combined Liquidity Score		baa2		baa3		
Financial Profile						
Business Diversification				0		
Opacity and Complexity				0		
Corporate Behavior				0		
Total Qualitative Adjustments				0		
Sovereign or Affiliate constraint:				Aa1		
Scorecard Calculated BCA range				ba1-ba3		
Assigned BCA				ba2		
Affiliate Support notching				0		
Adjusted BCA				ba2		
Balance Sheet						
		in-scope (EUR million)	% in-scope	at-failure (EUR million)	% at-failure	
Other liabilities		777	66.3%	802	68.4%	
Deposits		360	30.7%	335	28.6%	
Preferred deposits		324	27.6%	308	26.3%	
Junior Deposits		36	3.1%	27	2.3%	
Equity		35	3.0%	35	3.0%	
Total Tangible Banking Assets		1,172	100%	1,172	100%	

Debt class	De Jure waterfall		De Facto waterfall		Notching		LGF Notching Guidance vs. Adjusted BCA	Assigned LGF notching	Additional notching	Preliminary Rating Assessment
	Instrument volume + subordination	Sub-ordination	Instrument volume + subordination	Sub-ordination	De Jure	De Facto				
Counterparty Risk Rating	5.4%	5.3%	5.4%	5.3%	-1	-1	-1	-1	0	ba3
Counterparty Risk Assessment	5.3%	5.3%	5.3%	5.3%	0	0	0	0	0	ba2 (cr)
Deposits	5.3%	3.0%	5.3%	3.0%	-1	-1	-1	-1	0	ba3

Instrument class	Loss Given Failure notching	Additional Notching	Preliminary Rating Assessment	Government Support notching	Local Currency Rating	Foreign Currency Rating
Counterparty Risk Assessment	0	0	ba2 (cr)	0	Ba2 (cr)	--
Deposits	-1	0	ba3	0	Ba3	Ba3

[1] Where dashes are shown for a particular factor (or sub-factor), the score is based on non-public information.

Source: Moody's Financial Metrics

Ratings

Exhibit 4

Category	Moody's Rating
ADDIKO BANK AG	
Outlook	Stable
Counterparty Risk Rating	Ba3/NP
Bank Deposits	Ba3/NP
Baseline Credit Assessment	ba2
Adjusted Baseline Credit Assessment	ba2
Counterparty Risk Assessment	Ba2(cr)/NP(cr)

Source: Moody's Investors Service

Endnotes

- 1 Our Advanced LGF analysis takes into account the severity of loss faced by the different liability classes in resolution.
- 2 The rating shown is EBRD's long-term issuer rating and outlook.
- 3 The rating shown is Austria's long-term issuer rating and outlook. All sovereign ratings in this report show the country's long-term issuer rating and outlook.
- 4 LTRO: Long-term refinancing operations.

© 2019 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody's.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER

1169823