

## CREDIT OPINION

30 May 2022

### Update



Send Your Feedback

### RATINGS

#### CNP Assurances

Domicile	PARIS-FR, France
Long Term Rating	A1
Type	Insurance Financial Strength - 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

Louis Nonchez +33.1.5330.1052  
AVP-Analyst  
louis.nonchez@moody's.com

Lila Sumino, CFA +33.1.5330.3359  
Associate Analyst  
lila.sumino@moody's.com

Antonello Aquino +44.20.7772.1582  
Associate Managing Director  
antonello.aquino@moody's.com

### CLIENT SERVICES

Americas 1-212-553-1653  
Asia Pacific 852-3551-3077  
Japan 81-3-5408-4100  
EMEA 44-20-7772-5454

## CNP Assurances

### Semi-annual update

#### Summary

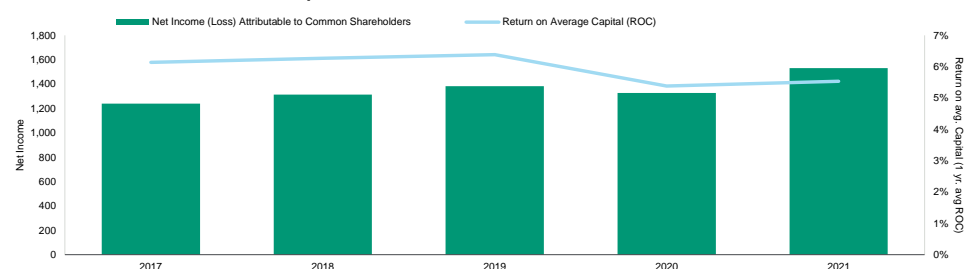
The A1 Insurance Financial Strength Rating (IFSR) of CNP Assurances (CNP) credit profile is supported by (1) the group's very strong market position in the French life insurance market, (2) a low liability risk profile thanks to a low average guaranteed rate on traditional savings business, (3) a very stable level of profitability, as well as (4) a good financial flexibility, in part thanks to [Caisse des Dépôts et Consignations](#) (CDC, Aa2, senior unsecured debt, stable) which remains the key indirect shareholder within the new corporate structure.

These strengths are partly offset by (1) a distribution strategy concentrated on a small number of large banking networks resulting in a low control of the distribution, (2) a relatively high level of risky assets on CNP's balance sheet through equities and real estate, although the participating nature of French traditional guaranteed products strongly mitigates asset risk, and (3) a balance sheet that is still dominated by traditional savings in a context of increased competition and interest rates still at a low level. However, the strong development of unit-linked outside France and the rise of interest rates should mitigate the risk of profitability decline.

On 2 May 2022, La Banque Postale, the majority shareholder of CNP, announced the beginning of its takeover bid on remaining free float of 14.75%, since LBP acquired 30% of the remaining free float at the launch of the takeover. This transaction is subject to receipt of the relevant approvals and would likely be concluded in mid-2022. [The change in ownership has no immediate impact on CNP's rating, but provides clarity on CNP's future role in LBP's bancassurance strategy.](#)

Exhibit 1

#### Net Income and Return on Capital



Source: Company reports and Moody's Investors Service

## Credit strengths

- » Very strong market position in the French life insurance market, with a market share of 12% and a relative market share of around 3.0x
- » A low liability risk profile thanks to a low average guaranteed rate (0.13% in France as at 31 December 2021 vs. 0.17% at end-2020) on traditional savings business (75% of CNP's net average technical reserves)
- » Very stable profitability as profits are mostly made of technical results and of fee-based earnings on long duration liabilities
- » Good financial flexibility, in part supported by [Caisse des Dépôts et Consignations](#) which remains the key indirect ownership within the new expected shareholding structure

## Credit challenges

- » Concentration of the distribution strategy on a small number of large banking networks, which results in a low control of the distribution
- » Relatively high proportion of equities and real estate in the investments portfolio
- » Balance sheet still dominated by traditional savings business and necessity to reorient the business towards unit-linked and protection business in a context of increased competition in these segments and of a sharp decline in interest rates

## Rating outlook

The outlook is stable, reflecting our expectation that CNP will continue to reduce its exposure to low interest rates, by increasing the weight of unit-linked products or reducing guarantees on traditional life contracts. The group is also incentivising policyholders to switch from their existing products to new types of policies, with a higher weight of unit-linked for example, as permitted by the French legislation.

## Factors that could lead to an upgrade

- » Material improvement in geographic, business and distribution diversification
- » Decrease in high risk assets coupled to improvements in capitalization, as evidenced by a Solvency II ratio sustainably above 200% (adjusted for deferred profit sharing reserve), with low volatility risk

## Factors that could lead to a downgrade

- » Loss of a significant distribution agreement, which would materially affect CNP's franchise and financial metrics
- » Prolonged decline in profitability with a return on capital below 5% resulting, for example, from the group's inability to grow profitably protection and unit-linked business to offset the expected gradual decline in earnings generated by the traditional savings business in a low interest rate environment
- » A material reduction in CNP's economic capitalisation, for example driven by further decline in interest rates or an increase in asset risk
- » Increased adjusted financial leverage to above 30% and reduced earnings coverage to below 5x, or a material change in CNP's shareholders structure which would result in a reduced financial flexibility

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

## Key indicators

Exhibit 2

### CNP Assurances

CNP Assurances [1][2]	2021	2020	2019	2018	2017
<b>As Reported (Euro Millions)</b>					
Total Assets	483,002	442,540	440,366	415,524	423,298
Total Shareholders' Equity	24,763	23,999	21,188	19,521	20,023
Net Income (Loss) Attributable to Common Shareholders	1,552	1,350	1,412	1,367	1,285
Total Revenue	44,149	34,945	48,714	38,636	45,125
<b>Moody's Adjusted Ratios</b>					
High Risk Assets % Shareholders' Equity	401.6%	347.8%	356.5%	366.6%	385.6%
Goodwill & Intangibles % Shareholders' Equity	27.5%	26.4%	13.1%	14.2%	14.2%
Shareholders' Equity % Total Assets	2.6%	3.0%	2.8%	2.7%	2.7%
Return on Average Capital (ROC)	5.5%	5.4%	6.4%	6.3%	6.1%
Sharpe Ratio of ROC (5 yr.)	1312.1%	1522.2%	3393.1%	2525.6%	1860.1%
Adjusted Financial Leverage	23.6%	24.8%	26.3%	24.7%	24.7%
Total Leverage	29.0%	29.2%	31.2%	30.6%	30.3%
Earnings Coverage	9.7x	8.6x	9.0x	8.1x	8.3x
Cash Flow Coverage	NA	NA	NA	NA	NA

[1] Information based on IFRS financial statements as of the fiscal year ended 31 December. [2] Certain items may have been relabeled and/or reclassified for global consistency.

Sources: Moody's Investors Service and company filings

## Profile

CNP is the second largest French life insurer primarily selling life insurance savings and protection products through the networks of La Banque Postale and of Groupe BPCE ("BPCE", A1, A1, baa1<sup>1</sup>). The group operates in France, in several European countries, but also in Brazil where it has a joint venture with [Caixa Economica Federal](#) (Ba2, Ba2, ba3), one of the largest banks in the country.

CNP is a public company but has a free float capital of 14.75% as of 02/05/2021. La Banque Postale is the majority shareholder with a stake of 85.25% and is expected to increase to 100% by mid-2022 through the current takeover bid on the remaining listed shares of CNP by La Banque Postale.

## Detailed credit considerations

### Distribution through large banking networks supports market position but limits distribution control

**Market position: very strong position in the French market with an enhanced role of La Banque Postale's bancassurance strategy within the new ownership structure**

CNP is the number two life insurer in France with around 10% market share and the number three life insurer in Brazil, benefitting from exclusive distribution agreements with some of the largest banks in these two countries. Outside of France, CNP is present in a number of other European countries, but Italy remains its most significant source of revenues (6% market share and number five life insurer in the country at year-end 2021).

We estimate CNP's relative market share at a very strong 3x in France, despite limited growth opportunity in life as a result of the termination of sale of insurance savings products through BPCE networks since the end of 2016 and of term creditor insurance through [Crédit Agricole S.A.](#) (Aa3, Aa3, baa2) since 2018. Nonetheless, the change in ownership is expected to strengthen CNP's role as central bancassurer of La Banque Postale and although BPCE has left the shareholding structure in 2021, CNP will continue to benefit from a wide access to BPCE network to protection products, as the existing distribution agreement will be maintained at least until 2030. CNP also continues to sell savings products through La Banque Postale and is developing partnerships with other distributors.

Additionally, La Banque Postale aims to transfer its non-life insurance operations (LBP Prévoyance, LBP Assurance Santé, LBP Assurance IARD and LBP Conseil en Assurance) to CNP. While dependent on the exact transaction, we consider this in principle as credit positive, as it would strengthen CNP's market position and the breadth of its product portfolio, even though the non-life entities (€1,077 million of premium income in FY 2021) are of relatively small scale compared to CNP (premium income of €31,668 million).

**Distribution: reliant on third parties but long-term agreements with large banking networks are secured**

CNP's access to very large banking networks is positive for the group's market position but we also consider the concentrated distribution strategy with a few third-party banking partners as the group's main credit challenge. In 2021, 44% of the group's premiums were sourced from BPCE and La Banque Postale's networks in France, and 20% from Caixa Economica Federal's networks in Brazil.

Positively, CNP has secured long-term agreements with its banking distributors. The agreement with La Banque Postale will run until 2036 and the absorption of CNP into La Poste group virtually eliminates the risk of non renewal of the insurer's access to the distribution network of its parent company. Additionally, the existing distribution agreement with BPCE has been renewed until 2030.

With [Caixa Economica Federal](#), CNP has signed a renewed agreement in 2020 to manage the Brazilian business via a joint-venture, which would imply a reduction of CNP's economic rights on the underwritten business. Nonetheless, this also enables CNP to secure a distribution agreement with a major bank in the country until 2046 on a significant part of the previous activities.

CNP is also diversifying its distribution strategy by developing partnerships with other banks in Europe (e.g., UniCredit in Italy, Santander Consumer Finance in several European countries), but also with mutual and provident associations. CNP is developing business through direct distribution and its salaried sales force as well. Non-banking distribution represents less than 15% of the group's premiums, we expect this share to grow but most likely at a slow pace.

**Low risk product is a key credit strength****Product risk: low average guaranteed rate on traditional savings products and a growing focus on unit-linked and protection business**

CNP's balance sheet is dominated by French insurance savings and pension products (85% of average technical reserve net of reinsurance in France), which we consider as low risk given the low level of guarantees that CNP grants to policyholders. The average guaranteed rate in the French business (which represents most of CNP's guaranteed business) is only 0.13% (as at 31 December 2021), one of the lowest level within European life insurers.

In addition, French guaranteed products are participating products. CNP shares a high portion (at least 85%) of investments results with policyholders and has some flexibility to smooth the returns credited to policyholders over time (the participation reserve can be withheld up to 8 years). These features bring stability in the credit profile of CNP and drive our assessment of asset quality, profitability and capital adequacy, as described below.

In order to reduce its exposure to interest rate risk, CNP has been limiting the underwriting of traditional savings products and increasingly focusing new business sales on unit-linked products, on which investment risk relies on policyholders. At the same time, CNP is active in transferring existing policyholders from pure guaranteed products to other products with a minimum portion of unit-linked. These transfers will contribute to gradually improve the group's risk profile. In 2021, net flows remained negative for traditional savings, thus accelerating the shift from guaranteed products to unit-linked.

CNP also increasingly sells protection products, mostly term creditor products, which we also consider as low risk.

**Some financial metrics in the low end of expectations for the rating level, but a very stable financial profile overall****Asset quality: relatively high level of equities and real estate, mitigated by ability to share asset losses with policyholders**

High risk assets (namely equities, real estate and below investment grade or non-rated bonds) represented 408% of CNP's shareholders' equity as of year-end 2021. This ratio remains high for an insurer within the A rating category.

In addition, CNP has slightly increased its asset risk, with higher allocations to equities and corporate bonds, in order to mitigate the decline in investment return experienced over the last years in a context of persistently low rates.

However, CNP has implemented hedges on part of its equity portfolio (€17.1 billion nominal hedged as at 31 December 2021) and, because of the participating nature of French guaranteed products, has a high ability to pass on asset losses to policyholders in stress scenarios. Ability to share losses with policyholders mainly stems from the high level of unrealized gains on CNP's equity and real estate portfolio and from the difference between CNP's investment return and the average level of guaranteed rate. When considering these mitigants, we view CNP's exposure to high risk assets as in line with CNP's rating level.

During the first quarter of 2022, CNP has almost finalized the realization of the gains recorded on its investment portfolio, with own-account revenues up 65% compared to the first quarter of 2021. We believe this demonstrates an appropriate investment strategy and market timing given the volatility both on equity and bond markets recorded at the end of the first quarter. To our view, this flexible investment strategy, coupled to hedges, can somewhat balance exposure to high-risk assets.

**Capital adequacy: high Solvency II ratio although sensitive to interest rates**

CNP reported a high 243% Solvency II ratio as of Q1 2022, up from 217% as of year-end 2021 mainly driven by better financial market conditions, accounting for an increase of 19 percentage points (ppts).

The ratio has been volatile in recent years and is very sensitive to market movements and movements in interest rates in particular. As of year-end 2021, CNP reported that a 50 bps decline in interest rates would cause a decline in its solvency ratio by 18 ppts. We believe the sensitivity of CNP's financial market conditions is largely driven by the weight of future profits included in CNP's Tier 1 capital, which is common for life insurance groups and is technically resulting from the large duration gap of the group (see below).

We consider CNP's Solvency II ratio, excluding the deferred profit sharing reserve from own funds, to generally be a broadly adequate measure of CNP's economic capital (CNP does not use transitional measures or equivalence to calculate its ratio). This ratio takes into account the low risk nature of the products sold by CNP and the group's ability to share losses with policyholders. The ultimate forward rate (UFR) also has a limited impact on the group's ratio (a reduction of the UFR by 50 bps reduces CNP's ratio by 4ppts).

Excluding the deferred profit sharing reserve, the level of solvency is below our expectations for CNP's rating level. Nonetheless, we consider the risk of CNP not being able to meet its interest rate guarantees to be very low in the medium term. We also take into account the capital management policy of the company in our analysis of capital. The low duration of the assets and the stock of discretionary deferred policyholders' participation reserves enable the group to facilitate policy transfers from one product to another. The shift in business profile that the group is driving through these actions, as well as through changes in new business mix, is set to contribute to improve CNP's solvency ratio, although the pace of these changes remains uncertain.

Finally, upon regulatory approval, the assets and liabilities related to existing occupational retirement products - on which Solvency II framework currently applies - will be transferred to a new type of pension vehicle, FRPS (Fonds de Retraite Professionnelle Supplémentaire) intended to qualify as an IORP (Institution for Occupational Retirement Provision) under the EU Pension Directive. This transfer would add 10ppts to 15ppts to CNP's Solvency II ratio (estimates as of year-end 2021). However, similar to our view at the technical provisions transitional employed by other life insurers, which allows for applying Solvency I calculations for parts of the back-book for a transitory period, we consider this approach less economic and not fully reflective of the risks associated with these products.

In 2022, the purchase and the inclusion in the solvency capital requirement of La Banque Postale's non-life insurance operations will have a one-time moderate negative impact on the solvency ratio, which is not disclosed at this stage. Longer-term, CNP reported that the current Solvency review proposed by the European Commission related to long-term investment would likely decrease the ratio by an estimated -15ppts to -10ppts by 2032, with the amended rules to be gradually phased in.

CNP is expected to maintain a 45% dividend payout ratio to La Banque Postale (aligned on the average payout ratio for all the group's subsidiaries), we expect the capital management policy of CNP to remain unchanged in the medium-term. The strengthened Solvency II ratio disclosed at the end of the first quarter of 2022 (243%, mainly benefitting from the increase of interest rates) is also a mitigating factor. Going forward, we expect that CNP's solvency ratio will be maintained above 190%, despite the absence of a target solvency ratio defined at the group level.

**Profitability: consolidated ratios boosted by Brazilian business, but long-duration and low risk liabilities provide with a very low volatility**

CNP's consolidated profitability metrics (return on capital of 5.5% in 2021, 5.9% on a five-year average) are good. These metrics include 100% of the profits generated by its operations in Brazil that it controls only at 51.75%. When taking into account only the stake of CNP in its Brazilian business and other businesses, we estimate CNP's return on capital to be closer to 4.8%. However, the current distribution agreement in Brazil will result in reduced profits for CNP compared to the previous agreement, all else being equal, both because of a lower stake in the future Brazilian business, and because the new distribution agreement covers a reduced perimeter.

In Q1 2022, attributable recurring profit was €740 million, up from €542 million in Q1 2021. Earnings improved thanks to increased unit-linked sales in France and growth of international activities - partly resulting from the consolidation of acquired Italian entity.

We expect the profitability of traditional guaranteed products to erode gradually because of the net outflows on these products (negative by €5.3 billion in 2021, trend confirmed in early 2022). In 2021, CNP continued to grow unit-linked premiums and reserves as reflected by the increase in unit-linked sales in France by 43.4% compared to last year.

So far the exposure of CNP to current tensions in eastern Europe has been marginal, but profitability might deteriorate if the crisis leads to severe macroeconomic effects such as a recession. More positively, the current rise in interest rates reduces pressure on investment margin.

#### **Liquidity & ALM: risk of sharp increase in interest rates well managed**

CNP's liquidity is good, as shown by the high ratio of liquid assets over liquid liabilities (3.1x as of year-end 2021).

One of the main financial risks that CNP faces is a sharp increase in interest rates, which would depress the value of CNP's fixed income assets and would likely also result in an increase in surrender rates on guaranteed savings products. However, CNP has implemented hedges to partly protect its asset portfolio, which mitigates this risk. A sharp increase in surrenders would nonetheless reduce the volume of fees that CNP can take out from savings policies and affect CNP's recurring earnings.

In addition, CNP has a high stock of deferred profit sharing reserves available to be used to improve policyholders' credited rates, retain customers and remain competitive if a material and sustained increase of interest rates should happen.

The surrender risk is also partly covered by a low duration of assets (with a weighted average life of bonds of around 5 years for France) compared to the duration of liabilities.

This however exposes CNP Assurances to some reinvestment risk. We consider this reinvestment risk to be limited given the low average guaranteed rate on traditional savings business. The current macroeconomic perspective both in terms of inflation and interest rates tends to reduce the risk associated with very low interest rates on the short-term.

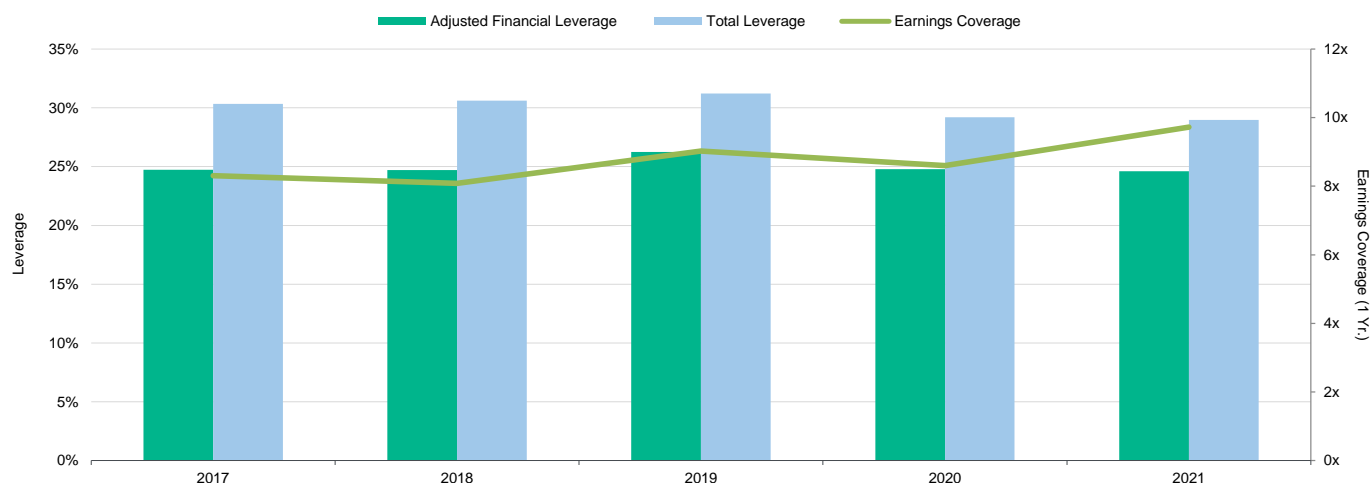
#### **Financial flexibility: strong shareholder contributes to a good access to capital**

CNP's leverage metrics (23.3% adjusted financial leverage and 29.0% total leverage as of year-end 2021) are consistent with a strong credit profile. The group's earnings coverage, at 9.7x in 2021 is inflated by the inclusion of 100% of the profits of CNP's Brazilian operations, while only around 52% of these earnings are effectively available for the holding. When adjusted for this, earnings coverage would be at around 7.5x, which is more in line with an A-range credit profile. The earnings coverage could slightly decrease following the new agreement signed with [Caixa Economica Federal](#), but to a limited extent as the business in Brazil continues to grow. Earnings from Brazil are also linked to the good execution of the foreign exchange hedging strategy, given the volatility of the Brazilian real.

In January 2022 €500 million Tier 3 subordinated debt was issued, confirming the flexible strategy of CNP in terms of debt issuance within the Solvency II framework, with comfortable headroom to issue further bonds of any classification. Following this issuance, adjusted financial leverage is expected to increase to around 25% on a pro-forma basis.

Finally, we expect that the change in ownership will not materially impact CNP's financial flexibility. The delisting of CNP's shares (expected to happen in mid-2022) would curtail CNP's direct access to external sources of funding. However, CDC will remain a key indirect shareholder which we consider to enhance CNP's financial flexibility.

Exhibit 3

**Financial Flexibility**

Source: Company reports and Moody's Investors Service

**ESG considerations****Environment**

Environmental risks are not material rating drivers for CNP. The group integrates environmental consideration into investment processes (exclusion of some sectors and introduction of carbon footprint metrics in portfolio evaluation).

**Social**

CNP, as a life insurer, faces social risks through the handling of customer information. Changing demographics, and the impact of changing consumer preferences on distribution channels may also have business growth implications, but CNP mitigates these risks through an increasing level of business diversification.

**Governance**

Like all other corporate credits, the credit quality of CNP is influenced by a wide range of governance-related issues, relating to financial, managerial, ownership or other factors, all of which can be exacerbated by regulatory oversight and intervention.

La Banque Postale, and ultimately CDC will become the sole shareholders of CNP. The delisting of CNP might result in changes in its corporate governance, although LBP would continue to support CNP's current management. Additionally, CNP operates within a strong regulatory environment, and will continue to be overseen by the French regulator, Autorité de Contrôle Prudentiel et de Résolution (ACPR).

## Rating methodology and scorecard factors

Exhibit 4

### CNP Assurances

Financial Strength Rating Scorecard [1][2]	Aaa	Aa	A	Baa	Ba	B	Caa	ScoreAdj	Score
Business Profile								Aa	A
<b>Market Position and Brand (15%)</b>								Aa	Aa
-Relative Market Share Ratio		X							
<b>Distribution (10%)</b>								A	A
-Distribution Control			X						
-Diversity of Distribution			X						
<b>Product Focus and Diversification (10%)</b>								A	A
-Product Risk			X						
-Life Insurance Product Diversification			X						
Financial Profile								A	A
<b>Asset Quality (10%)</b>								B	A
-High Risk Assets % Shareholders' Equity							401.6%		
-Goodwill & Intangibles % Shareholders' Equity		27.5%							
<b>Capital Adequacy (15%)</b>								Ba	A
-Shareholders' Equity % Total Assets					2.6%				
<b>Profitability (15%)</b>								Aa	A
-Return on Capital (5 yr. avg.)			X						
-Sharpe Ratio of ROC (5 yr.)	X								
<b>Liquidity and Asset/Liability Management (10%)</b>								Aa	A
-Liquid Assets % Liquid Liabilities		X							
<b>Financial Flexibility (15%)</b>								Aa	A
-Adjusted Financial Leverage		23.6%							
-Total Leverage		29.0%							
-Earnings Coverage (5 yr. avg.)		X							
-Cash Flow Coverage (5 yr. avg.)									
Operating Environment								Aaa - A	Aaa - A
Preliminary Standalone Outcome								A2	A1

[1] Information based on IFRS financial statements as of fiscal year ended December 31, 2021. [2] The Scorecard rating is an important component of the company's published rating, reflecting the standalone financial strength before other considerations (discussed above) are incorporated into the analysis.

Source: Moody's Investors Service

## Notching considerations

The A3(hyb) ratings on CNP's subordinated debt instruments are rated two notches below CNP's IFSR, in line with our standard notching practice for operating companies.



## Ratings

Exhibit 5

Category	Moody's Rating
<b>CNP ASSURANCES</b>	
Rating Outlook	STA
Insurance Financial Strength	A1
Subordinate	A3 (hyb)
<b>CAISSE DES DEPOTS ET CONSIGNATIONS</b>	
Rating Outlook	STA
Senior Unsecured	Aa2
Senior Unsecured MTN	(P)Aa2
Commercial Paper	P-1
LT Issuer Rating	Aa2
LT Bank Deposits	Aa2

Source: Moody's Investors Service

## Endnotes

<sup>1</sup> The bank ratings shown in this report are the bank's deposit rating, senior unsecured debt rating and Baseline Credit Assessment

© 2022 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 CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. 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 APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER 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. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS 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, ASSESSMENTS, OTHER OPINIONS, AND 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, ASSESSMENTS, OTHER OPINIONS OR 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.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND 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 its 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, ASSESSMENT, 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 credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service 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](http://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 61 003 399 657 AFSL 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 credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

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

## CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454