ProCredit Holding

Q221 results

Quality of credit portfolio remains high

Banks

ProCredit Holding's (PCB) net income came in at a strong €20.7m in Q221 (versus €8.0m in Q220), translating into an annualised return on equity (ROE) of 10.2% (and 9.1% in H121). This was assisted by a favourable cost of risk development (with a net positive P&L impact of €0.9m), solid loan book growth (4.5% quarter-on-quarter in Q221) and stable year-on-year net interest margin (NIM) of 2.9%. Despite the improved FY21 earnings outlook (as illustrated by the increased management guidance), PCB's shares continue to trade at a considerable discount to its book value with a FY21e P/BV of 0.5x (based on our forecasts).

Year end	Net interest income (€m)	EPS (€)*	DPS (€)	P/BV (x)	P/E (x)	ROE (%)	Yield (%)
12/19	194.5	0.89	0.00	0.6	8.6	6.9	N/A
12/20	201.6	0.70	0.53	0.6	11.0	5.3	6.9
12/21e	215.3	1.19	0.40	0.5	6.5	8.7	5.2
12/22e	235.9	1.28	0.43	0.5	6.0	8.8	5.6

Source: ProCredit Holding, Edison Investment Research. Note: *From total operations.

No sign of elevated corporate stress so far

The credit quality of PCB's loan portfolio remains high despite the expiry of moratoria, with the share of credit-impaired loans in the total loan book at 2.5% at end-June 2021 versus 2.7% at end-March 2021 (the share of stage 2 loans was also down to 4.4% from 4.6%). PCB also saw higher recoveries of written-off loans at €7.1m in H121 versus €4.3m in H120. Consequently, it has recognised a €0.9m provision in its Q221 P&L, translating into an H121 cost of risk of 10bp (versus 64bp in H120). PCB did not update its macro assumptions in Q221 which, according to management, would yield a further €4.0m positive impact on provisioning if it were to base them on current IMF forecasts).

Raised FY21 guidance following a strong H121

The solid H121 performance encouraged management to upgrade its FY21 guidance on 23 July 2021 (before the release of Q221 figures), with ROE now expected at 8.0–9.5% (vs 6.0–7.5% previously and our current forecast of 8.7%), the cost income ratio (CIR) guided at 65%, ie at the lower bound of the previous guidance of 65–68% (we expect 64.6% in FY21) and CET1 ratio above 13% (we forecast 13.2%). Management retained its loan book growth guidance at c 10% in FY21 excluding any FX impact (which has so far been positive ytd). Given the 7.7% increase in H121, we consider the guidance relatively conservative and anticipate growth at 13.7% in FY21. A new COVID-19 wave remains one of the potential risk factors given the low vaccination rates in the region versus Western Europe.

Valuation: Still offering significant upside potential

We have increased our fair value estimate of PCB to €12.60 per share from €11.20 previously, which now implies significant 64% upside to the current share price. This is underpinned by our higher FY21 earnings expectations (which are broadly in line with PCB management's) translating into PCB's tangible book value forecast of €13.8 per share (versus €13.4 previously). Moreover, it is supported by higher market valuations of PCB's peers with their current average FY21e P/BV of 1.2x versus 1.0x at the time of our last update note published in May 2021.

20 August 2021

Price	**€7.68**
Market cap	**€452m**
Total assets (€bn) at end June 2021	7.6
Shares in issue	58.9m
Free float	35.7%
Code	PCZ
Primary exchange	Frankfurt Prime Standard
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	(7.1)	(13.9)	23.9
Rel (local)	(10.9)	(17.5)	2.0
52-week high/low		€9.3	€5.1

Business description

ProCredit is a Germany-based group operating regional banks across Southeastern and Eastern Europe, as well as in Ecuador. The banks focus on SMEs and private middle-income and high earners. At end-June 2021, the group's total assets stood at €7.6bn.

Next events

Capital markets day	12 October 2021
Q321 results	11 November 2021

Analysts

Milosz Papst +44 (0)20 3077 5700

Anna Dziadkowiec +44 (0)20 3077 5700

financials@edisongroup.com

Edison profile page

ProCredit Holding is a research client of Edison Investment Research Limited

Q221 results: Annualised ROE up to 10.2%

PCB reported a healthy Q221 net income of €20.7m, significantly above our estimate of €13.2m and Q220 net profit of €8.0m. It implies an annualised ROE of 10.2% in Q221 versus 4.0% in Q220, with annualised ROE in H121 of 9.1% versus 5.5% in H120.

Exhibit 1: Q221 results highlights

€m, unless otherwise stated	Q221	Q221e	% difference	Q220	y-o-y change
Net interest income	53.9	51.8	4.0%	49.0	10.0%
Net interest margin (annualised)	2.9%	2.7%	4.0%	2.9%	-7 bp
Expenses for loss allowances	(0.9)	5.8	N/M	8.8	-110.1%
Cost of risk (annualised, bp)	(6)	-43	36 bp	71	-78 bp
Net fee and commission income	12.1	12.2	-0.9%	10.6	13.8%
Pre-tax profit	24.8	16.3	52.1%	10.1	146.0%
Net income	**20.7**	**13.2**	**57.3%**	**8.0**	**160.1%**
CIR	64.0%	66.2%	-221bp	68.5%	-442 bp
CET-1 ratio	13.7%	13.5%	20bp	14.1%	-41bp
Gross loan portfolio growth (q-o-q)	4.5%	1.6%	296 bp	4.4%	0.1 pp
Customer deposits growth (q-o-q)	0.0%	1.9%	-189 bp	4.4%	-4.4 pp

Source: Company accounts, Edison Investment Research

Loan book growth at a healthy 4.5% in Q221 and 7.7% in H121

PCB maintains its solid loan book growth, which in Q221 stood at 4.5% q-o-q (bringing H121 growth to 7.7%). This is above the loan book momentum reported in Q221 by Erste Group (+2.5% q-o-q, with corporate lending up 1.9%) and Raiffeisen Bank International (+2.4%). All of PCB's local banks have contributed to this expansion with growth rates of 4.5% or more in H121, with banks in Romania, North Macedonia and Bulgaria posting growth of more than 6%. Working capital loans were the main driver, with an increase of c 8% in Q221 (according to our estimates). We note that in this category, PCB recognises all loans with a maturity of up to three years, even though some of them may actually be investment loans with shorter maturity. Green loans also continue to be an important contributor, being up by c 6.0% q-o-q in Q221 (9.5% in H121) and now representing 19.1% of PCB's loan book (close to its mid-term target of 20%). We estimate that the FX impact on PCB's loan book growth in Q221 (from the Ukrainian hryvnia, Georgian lari and US dollar) was very minor, while it contributed c 1pp to H121 growth overall. Loans in moratoria represented less than 1% of PCB's loan book at end-June 2021.

Focus on optimising the interest cost of its deposit base

PCB's customer deposit base remained stable in Q221 (translating into a 2.5% increase in H121) which, according to PCB's management, was due to a strategic reduction in more expensive wholesale funds (implemented when PCB was experiencing a particularly comfortable liquidity position at the end of Q121), offsetting the solid rise in private client sight deposits. Based on management's comment during the Q221 analyst call, we understand that it sees scope for further optimisation of the interest cost on its customer deposit base as the share of sight and FlexSave deposits continues to increase (it stood at 68% at end-June 2021, up 3.5pp y-o-y). At end-June 2021, PCB's customer loans to deposits ratio stood at 110% versus 105% at end-2020 and 111% at end-June 2020.

Cost of risk visibly below last year

PCB posted a positive P&L impact from the reduction in loss allowances to €0.9m in Q221 (versus an €8.8m expense in Q220), bringing the H121 expense for loss allowances to €2.7m (versus €15.7m in H120). This implies an H121 annualised cost of risk of just 10bp (versus 64bp in H120), which is broadly in line with Erste Group (10bp in H121) and below Raiffeisen Bank International (23bp), whose provisioning was affected by EU sanctions on Belarus. The share of credit-impaired loans in PCB's gross loan book was down to 2.5% at end-June 2021 from 2.7% at end-March 2021, while the share of stage 2 loans declined to 4.4% at end-June 2021 from 4.6% at end-March 2021. The default rate for PCB's loan portfolio remains particularly low at 1.0%. Importantly, PCB's provisioning in H121 was not influenced by model parameters despite the more positive macroeconomic outlook. The IMF recently updated its GDP forecasts for emerging and developing Europe to 4.9% in FY21 (versus 4.6% previously) and 3.6% FY22 (versus 3.9% previously). However, this is not yet reflected in PCB's risk models. According to PCB, updating these parameters would result in the release of c €4.0m in provisions (management highlighted that it will consider doing this at the time of FY21 results). Moreover, the company experienced higher recoveries of written-off loans in H121 at €7.1m compared to €4.3m in H120. At end-June 2021, the ratio of allowances to credit-impaired loans stood at a safe 90.8%.

NIM stable y-o-y, but competitive pressure persists

PCB's net interest income improved by 10.0% y-o-y to €53.9m in Q221, driven by loan book momentum and stable y-o-y NIM at 2.9%, assisted by all regional banks. It was particularly supported by the interest rate hikes in Eastern Europe, with the National Bank of Ukraine recently raising its main interest rate by 50bp to 8% in July 2021 and the National Bank of Georgia raising its refinancing rate by 50bp to 10% in August 2021 (each of these central banks has increased interest rates by 200bp in total in 2021 ytd). Ukraine and Georgia combined made up 19% of PCB's loan book at end-June 2021. The NIM was further assisted by the growing share of sight deposits and the reduction in excess liquidity built up in Q420. Nevertheless, management highlighted continued margin pressure as competition in the regional markets has picked up again.

Net fee and commission income rose by 13.8% y-o-y to €12.1m in Q221, broadly in line with our estimate of €12.2m. This was supported by the recovery in money transfer and card volumes, with PCB's net fees from payment services up 10.0% y-o-y to €9.5m in H121 and net fees from debit/credit cards up to €0.7m in H121 versus -€0.3m in H120. This was partially offset by higher payments for guarantee schemes (eg InnovFin), with expenses for letters of credit and guarantees up to €1.5m versus €0.9m in H120.

CIR down as PCB realises its scaling potential

PCB's cost income ratio reached 64.0% in Q221 versus 68.5% in Q220 on the back of higher income (excluding change in loss allowances) combined with moderate c 4% y-o-y growth in personnel and administrative expenses. We note that PCB's Q221 figures include a seasonal increase in operating costs associated with Bulgarian deposit insurance expenses, although the expense was lower y-o-y at c €1.5m (c 2.3pp of Q221 CIR) compared to €3.5m in Q220. On the other hand, PCB incurred €2.9m of expenses for provisions and settlements for class actions against Serbian banks (including ProCredit Bank Serbia) related to loan processing fees. This is above the maximum of €2.0m previously flagged by management in its Q121 earnings call.

CET1 at 13.7%, TCR at 15.1%

PCB's CET1 ratio increased to 13.7% at end-June 2021 from 13.3% at end-2020, remaining well above the regulatory requirement of 8.2%. It now includes the entire FY20 results (following the first-time recognition of H220 profits), adjusted for the €20.6m dividend payment of €0.35 per share in Q421 (reducing the CET1 ratio by 38bp). The company intends to distribute this additional dividend on top of the €0.18 per share already paid in Q221, with the aggregate dividend translating into a 6.9% dividend yield currently (although we note that this is paid from FY19 and FY20 earnings). At the same time, the CET1 ratio at end-June 2021 excludes H121 earnings, which will be reflected from Q321 (after deducting a one-third dividend accrual).

The CET1 ratio increase also reflected a €100m reduction in risk-weighted assets (RWA) from the second phase of new SME support factors introduction (in line with earlier management comments, see our previous note), as well as the application of Deep and Comprehensive Free Trade Area (DCFTA) guarantees. Furthermore, the rise versus end-2020 was supported by the reduction in excess liquidity placed at local central banks in Q420, as well as the positive development of the translation reserve on the back of the Ukrainian hryvnia and Georgian lari appreciation. According to management, the application of the standardised approach will result in a relatively limited impact from Basel IV implementation in 2023. The company's total capital ratio (TCR) was 15.1% at end-June 2021 (versus 14.7% at end-2020 and the regulatory requirement of 12.6%).

Forecast revisions

On the back of PCB's Q221 results, which were above our expectations (driven by a lower cost of risk, higher loan book growth and slightly higher NIM, among other things) and the resulting upward revision of PCB's management guidance for the year, we have raised our FY21 net income forecast by c 30% to €70.0m. This is predominantly a function of 1) lower FY21 cost of risk assumptions (19bp versus 41bp previously), 2) higher gross loan book growth expectations (13.7% versus 10.7% previously) and 3) slightly higher NIM forecast (2.8% versus 2.7% previously). Consequently, we expect PCB to achieve an FY21 ROE of 8.7% versus management guidance of 8.0–9.5%. One of the main risk factors to our forecasts remains the potential impact of a new COVID-19 wave, especially given that the share of fully vaccinated people across most of PCB's countries of operations, while picking up, remains visibly below Western Europe (c 5–25% except for Serbia at 41% versus the EU average of 54%, according to Our World in Data).

We have applied a minor downward adjustment to our net income forecast for FY22 to €75.5m, pencilling in a higher cost of risk at 33bp (versus 25bp previously), as we assume that some of the credit quality deterioration will be pushed into 2022. Our earnings forecasts for FY23 and beyond remain broadly unchanged.

Exhibit 2: Forecast revisions summary

€m, unless otherwise stated	2020	2021e				2022e			
	Actual	Old	New	Change	Growth y-o-y	Old	New	Change	Growth y-o-y
Net interest income	201.6	208.4	215.3	*3.3%*	*6.8%*	230.1	235.9	*2.5%*	*9.6%*
NIM (annualised)	2.9%	2.7%	2.8%	*0.1 pp*	*-0.1 pp*	2.8%	2.8%	*0.1 pp*	*0 pp*
Expenses for loss allowances	28.6	22.8	10.8	*-52.8%*	*N/M*	15.1	20.9	*38.6%*	*94.5%*
Cost of risk (annualised in bp)	57	41	19	*-22 bp*	*N/M*	25	33	*9 bp*	*14 bp*
Net fee and commission income	47.4	51.0	49.6	*-2.7%*	*4.7%*	57.2	56.4	*-1.4%*	*13.8%*
Pre-tax profit	52.1	66.2	84.3	*27.3%*	*61.8%*	93.2	91.4	*-1.9%*	*8.4%*
Net income	**41.4**	**53.9**	**70.0**	***29.8%***	***69.0%***	**76.5**	**75.5**	***-1.4%***	***7.9%***
CET1 ratio	13.3%	13.0%	13.2%	*0.3 pp*	*0 pp*	12.9%	13.0%	*0.1 pp*	*-0.2 pp*
Total Capital Ratio (TCR)	14.7%	14.3%	14.5%	*0.2 pp*	*-0.2 pp*	14.1%	14.1%	*0.0 pp*	*-0.2 pp*
CIR	68.0%	66.5%	64.9%	*-1.7 pp*	*-3.1 pp*	63.3%	62.5%	*-0.8 pp*	*-2.4 pp*
Gross loan portfolio	5,254.3	5,816.3	5,973.3	*2.7%*	*13.7%*	6,383.0	6,562.0	*2.8%*	*9.9%*
Net loan portfolio	5,131.6	5,675.2	5,842.2	*2.9%*	*13.8%*	6,235.6	6,418.5	*2.9%*	*9.9%*
Customer deposits	4,898.9	5,518.3	5,377.9	*-2.5%*	*9.8%*	6,037.9	5,886.5	*-2.5%*	*9.5%*

Source: ProCredit, Edison Investment Research

In Q321, we expect PCB to post net income of €16.9m (versus €11.7m in Q320), with a net interest margin of 2.9% (broadly stable versus Q221 and Q320), a cost of risk of 26bp and a CIR of 65.2%.

Exhibit 3: Summary of Q321 results forecasts

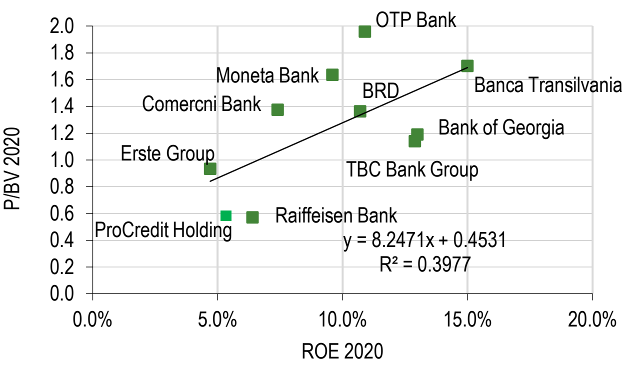
€m, unless otherwise stated	Q321e	Q320	y-o-y change
Net interest income	55.2	50.8	8.7%
Net interest margin (annualised)	2.9%	2.9%	-3 bp
Expenses for loss allowances	3.6	5.4	-34.1%
Cost of risk (annualised, bp)	26	42	-16 bp
Net fee and commission income	12.4	12.1	3.0%
Pre-tax profit	20.5	15.8	29.9%
Net income	**16.9**	**11.7**	**44.6%**
CIR	65.2%	66.7%	-150 bp
CET-1 ratio	13.7%	14.1%	13.7 pp
Gross loan portfolio growth (q-o-q)	2.9%	3.0%	-0.1 pp
Customer deposits growth (q-o-q)	3.5%	6.1%	-2.6 pp

Source: ProCredit, Edison Investment Research

Valuation

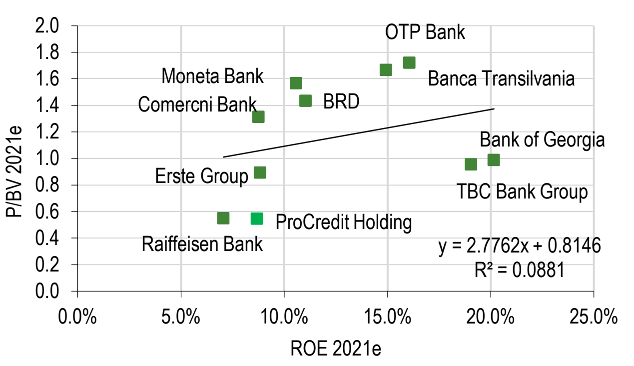
Based on our FY21 forecasts for PCB, it is currently trading at the lowest FY21e P/BV ratio in its peer group at c 0.5x (versus the peer average of 1.2x based on Refinitiv consensus). We believe this is only partially justified by its lower ROE, which we forecast at 8.7% in FY21 (compared to the peer average of 12.1%, including Erste Group at 8.8% and Raiffeisen Bank International at 7.1%). A regression line based on FY21e P/BV and ROE estimates for PCB (Edison) and its peers (Refinitiv) implies an FY21e P/BV ratio for PCB of 1.06x. However, the low R-squared value of this regression line suggests limited reliability. A similar comparison based on actual FY20 figures (with a visibly higher R-squared, see Exhibit 4) implies an FY21e P/BV ratio of 0.84x. We blend this with the 1.06x ratio implied by the capital asset pricing model to arrive at a fair value multiple of 0.95x, which we use in our implied price to tangible book value method. Together with the upward revision of our FY21 forecasts highlighted above, this translates into our new PCB fair value estimate of €12.60 per share compared with €11.20 previously, representing c 64% upside potential to PCB's current share price.

Exhibit 4: P/BV vs ROE – ProCredit and peers (2020)



Source: ProCredit, Edison Investment Research, Refinitiv

Exhibit 5: P/BV vs ROE – ProCredit and peers (2021)



Source: ProCredit, Edison Investment Research forecasts for PCB, Refinitiv consensus at 20 August 2021 for peers

Exhibit 6: Financial summary

Year ending December, €000s	FY18	FY19	FY20	FY21e	FY22e	FY23e	FY24e	FY25e
INCOME STATEMENT								
Net interest income	186,235	194,533	201,561	215,252	235,897	256,700	279,841	306,218
Net fee and commission income	52,172	51,972	47,380	49,608	56,445	61,095	64,783	68,693
Loss allowances (-)	(4,714)	(3,327)	28,600	10,752	20,910	11,240	10,115	8,404
Operating income	245,394	252,603	223,514	259,690	278,566	315,213	343,765	376,439
Operating expenses	167,866	175,737	171,430	175,391	187,166	201,296	215,292	231,448
PBT	77,528	76,866	52,085	84,299	91,400	113,917	128,474	144,991
Net profit after tax	**54,479**	**54,305**	**41,396**	**69,965**	**75,498**	**94,500**	**106,887**	**120,974**
Reported EPS (€)	0.90	0.89	0.70	1.19	1.28	1.60	1.81	2.05
DPS (€)	0.30	0.00	0.53	0.40	0.43	0.53	0.60	0.68
BALANCE SHEET								
Cash and balances at central banks	963,714	1,081,723	1,405,349	1,358,520	1,400,081	1,450,271	1,484,681	1,515,833
Loans and advances to banks	211,592	320,737	236,519	237,481	237,481	237,481	242,230	247,075
Investment securities	297,308	378,281	336,476	340,051	346,852	353,789	353,789	353,789
Loans and advances to customers	4,267,829	4,690,961	5,131,582	5,842,215	6,418,526	7,061,758	7,777,408	8,573,897
Property, plant and equipment and investment properties	130,153	138,407	140,744	136,727	136,727	136,727	136,727	136,727
Intangible assets	22,191	20,345	19,316	19,313	19,313	19,313	19,313	19,313
Other assets	73,396	67,106	59,315	58,409	58,409	58,409	58,409	58,409
Total assets	**5,966,184**	**6,697,560**	**7,329,301**	**7,992,716**	**8,617,389**	**9,317,748**	**10,072,558**	**10,905,044**
Liabilities to banks and international financial institutions	1,014,182	1,079,271	1,235,763	1,278,213	1,342,123	1,409,229	1,465,599	1,524,223
Liabilities to customers	3,825,938	4,333,436	4,898,897	5,377,949	5,886,535	6,450,453	7,073,507	7,762,024
Debt securities	206,212	343,727	266,858	357,701	357,701	357,701	357,701	357,701
Subordinated debt	143,140	87,198	84,974	84,738	84,738	84,738	84,738	84,738
Other liabilities	33,076	50,436	63,080	62,039	62,039	62,039	62,039	62,039
Total liabilities	**5,222,549**	**5,894,068**	**6,549,573**	**7,160,639**	**7,733,136**	**8,364,161**	**9,043,583**	**9,790,725**
Total shareholders' equity	743,634	803,492	779,728	832,077	884,253	953,587	1,028,974	1,114,319
BVPS	12.5	13.5	13.2	14.1	15.0	16.2	17.5	18.9
TNAV per share (€)	12.1	13.1	12.9	13.8	14.7	15.9	17.1	18.6
Ratios								
NIM	3.30%	3.10%	2.90%	2.81%	2.85%	2.88%	2.92%	2.95%
Costs/Income	69.7%	70.5%	68.0%	64.9%	62.5%	61.7%	60.8%	60.1%
ROAE	7.6%	6.9%	5.3%	8.7%	8.8%	10.3%	10.8%	11.3%
CET1 Ratio	14.4%	14.1%	13.3%	13.2%	13.0%	12.8%	12.8%	12.8%
Tier 1 ratio	14.4%	14.1%	13.3%	13.2%	13.0%	12.8%	12.8%	12.8%
Capital adequacy ratio	17.2%	15.7%	14.7%	14.5%	14.2%	13.8%	13.7%	13.7%
Payout ratio (%)	33.3%	0.0%	33.3%*	33.3%	33.3%	33.3%	33.3%	33.3%
Customer loans/Total assets	73.6%	71.6%	71.7%	74.7%	76.4%	78.3%	79.7%	81.1%
Loans/Deposits	114.8%	110.7%	107.3%	111.1%	111.5%	111.8%	112.2%	112.6%

Source: ProCredit accounts, Edison Investment Research. Note: *Management's dividend proposal reflects the intention to distribute one third of accumulated profits from 2019 and 2020.

General disclaimer and copyright

This report has been commissioned by ProCredit Holding and prepared and issued by Edison, in consideration of a fee payable by ProCredit Holding. Edison Investment Research standard fees are £49,500 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the research department of Edison at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of Liability: To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained on this note.

No personalised advice: The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Crown Wealth Group Pty Ltd who holds an Australian Financial Services Licence (Number: 494274). This research is issued in Australia by Edison AU and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

United Kingdom

This document is prepared and provided by Edison for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "FPO") (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment or investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document.

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person.

United States

Edison relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.

Frankfurt +49 (0)69 78 8076 960
Schumannstrasse 34b
60325 Frankfurt
Germany

London +44 (0)20 3077 5700
280 High Holborn
London, WC1V 7EE
United Kingdom

New York +1 646 653 7026
1185 Avenue of the Americas
3rd Floor, New York, NY 10036
United States of America

Sydney +61 (0)2 8249 8342
Level 4, Office 1205
95 Pitt Street, Sydney
NSW 2000, Australia