



**JYSKE BANK**

Impact analysis - Climate

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# Impact analysis - Climate

## Summary

- Financed CO<sub>2</sub> emission is estimated to total 2.1 million tonnes against 2.3 million tonnes at the end of 2020, corresponding to a reduction of approx. 9%.
- Average emission intensity declines by approx. 13% from 3.91 tonnes CO<sub>2</sub> per DKK million to 3.39 tonnes CO<sub>2</sub> per DKK million.
- CO<sub>2</sub> emission and emission intensity for loans were reduced by 18% and 19%, respectively driven primarily by declining emission factors across the loan portfolio. This can to a high degree be attributed to economic circumstances, for instance rising demand for low-emission cars and a larger share of renewable energy in heat supply. The reduction in intensity is also due to growth within areas of lending with low emission intensity for instance low-energy commercial properties.
- The emission intensity for investments declined by 5%, and going forward, determined CO<sub>2</sub> reduction targets are expected to contribute to a further reduction of the emission intensity. For the investment area, it is also a special focus area to integrate company-specific CO<sub>2</sub> data in the investment processes.
- Experience from this third estimation of financed CO<sub>2</sub> emission confirms the value of quantification. This intensifies focus on the correlation between business and sustainability and underlines the need for continued focus on improvement of the data basis and a further development of the common CO<sub>2</sub> model.

## Financed CO<sub>2</sub> emission

For a business volume of approx. DKK 628 billion stated as at the end of 2021, the CO<sub>2</sub> emission is estimated to amount to approx. 2.1 million tonnes against 2.3 million tonnes at the end of 2020.

The estimate of the CO<sub>2</sub> emission represents the business volume at a point in time, and the movements in the CO<sub>2</sub> emission and the related business volume since the latest estimate can be attributed to several factors such as selections and rejections of investment assets, changes to the loan portfolio and/or the client mix and improved data quality and economic circumstances.

The comprehensive business volume and the movements from year to year covered by the analysis are not comparable to Jyske Bank's traditional measuring of total assets. The business volume which forms part of the analysis also includes loans and investments which have not been included in Jyske Bank's balance sheet, for instance investment on behalf of our clients. These loans and investments are included in the statement since Jyske Bank can impact these through our products and advisory services. Likewise, business volume is only included in the statement where it is possible to estimate CO<sub>2</sub> emission.

Relative to end-2020, a larger business volume has been included in the statement primarily in the asset management and loans to the corporate sector. The change in the business volume to personal clients can be explained by a change in the practice for the statement where only bank mortgage loans have been included in 2021 for which it can on the basis of both product and mortgage be determined that the loan is for real property.

The emission intensity for the portfolio has declined for both investments and loans whereas the majority of the reduction in emission can be attributed to loans for personal clients as the average emission intensity has fallen to 1.61 tonnes CO<sub>2</sub> per DKK million against 2.44 tonnes CO<sub>2</sub> per DKK million at end- 2020.

**Table 1 - Business volume and CO<sub>2</sub> emission**

	Business volume DKKm				Emission tonnes CO <sub>2</sub>			
	2021	2020	2019	Change 21/20	2021	2020	2019	Change 21/20
<b>Investments</b>	<b>202,628</b>	<b>181,952</b>	<b>179,230</b>	<b>20,676</b>	<b>916,697</b>	<b>869,448</b>	<b>1,097,309</b>	<b>47,249</b>
Asset management	128,015	110,542	114,446	17,473	705,915	619,248	914,095	86,667
Own Portfolio	74,613	71,410	64,784	3,203	210,782	250,200	183,214	-39,418
<b>Loans</b>	<b>427,593</b>	<b>418,378</b>	<b>417,191</b>	<b>9,215</b>	<b>1,219,528</b>	<b>1,479,629</b>	<b>1,607,617</b>	<b>-260,100</b>
Personal clients	185,978	195,860	197,570	-9,882	299,427	478,391	499,917	-178,964
Corporate clients	241,615	222,518	219,621	19,097	920,101	1,001,238	1,107,700	-81,136
<b>Total</b>	<b>630,221</b>	<b>600,330</b>	<b>596,421</b>	<b>29,891</b>	<b>2,136,225</b>	<b>2,349,077</b>	<b>2,704,926</b>	<b>-212,852</b>

Note: Business volume for which no CO<sub>2</sub> emission data are available has been left out of the estimate. The comprehensive business volume and the movements from year to year covered by the analysis are not comparable to Jyske Bank's traditional measuring of total assets.

**Table 2 – Emission intensity**

	Emission intensity tonnes CO <sub>2</sub> per DKKm			
	2021	2020	2019	Change 21/20
<b>Investments</b>	<b>4.52</b>	<b>4.78</b>	<b>6.12</b>	<b>-0.26</b>
Asset management	5.51	5.60	7.99	-0.09
Own Portfolio	2.83	3.50	2.83	-0.67
<b>Loans</b>	<b>2.85</b>	<b>3.54</b>	<b>3.85</b>	<b>-0.69</b>
Personal clients	1.61	2.44	2.53	-0.83
Corporate clients	3.81	4.50	5.04	-0.69
<b>Total emission intensity</b>	<b>3.39</b>	<b>3.91</b>	<b>4.54</b>	<b>-0.52</b>

## Investments

For investment, the emission intensity was in 2021 reduced by 5%, which should be seen relative to the 22% reduction from 2019 to 2020. In the course of 2021, the CO<sub>2</sub> intensity was reduced for both our own investments and for the investments we make on behalf of our clients. Total emission for our and our clients' investments has increased since total investments have increased.

The reduction in emission intensity from 2019 to 2021 is primarily attributable to our approach that if two equity investments within the same sector are expected to yield the same return, the investment with the lowest carbon footprint is selected.

The largest emission of CO<sub>2</sub> for investment is attributable to our clients' investments in equities and corporate bonds. It is therefore a special focus area to integrate company-specific CO<sub>2</sub> data in our investment processes. During 2021, we have for a string of our equity funds added binding annual CO<sub>2</sub> reduction targets up to 2030. These approaches will contribute to a continuation of the reduction in the emission intensity.

A considerable proportion of the investment portfolios has been placed in Danish mortgage bonds. This asset class has a considerably lower emission intensity than equities and corporate bonds. In the asset class of Danish covered bonds, it is primarily the financing of ship transport via ship financing bonds that has a high emission intensity and hence a negative impact on the climate. For investments made on behalf of our clients in bond funds we have in 2021 introduced a CO<sub>2</sub> reduction target for mortgage bonds.

## Loans

Compared with 2020, CO<sub>2</sub> emission related to loans was reduced by approx. 260,000 tonnes. The reduction is primarily driven by car and housing loans for personal clients where the decline in emission for cars can be attributed to two factors: we have this year used a new method for the calculation of the emission based on the individual car model as described in the newest expansion of the common CO<sub>2</sub> model of the financial sector, and in addition the rising demand for financing of low-emission cars has a positive effect on total emission.

Emission from housing loans is impacted by the general transition in power and heat supply, therefore the emission factors for buildings decline generally in Denmark. Moreover, the total emission for buildings is affected by rising house prices and hence the property's loan-to-value (LTV). When using the common CO<sub>2</sub> model, a falling LTV results in lower emission in financial institutions although the emission from the property has not declined.

Emission from corporate loans has also declined despite a rising business volume. The increase in business volume has been boosted by two factors: we see higher focus on mortgage loans for which Jyske Bank has set up targets for increasing loans for low-energy properties, and for other corporate loans further business volume has been included in this analysis, partly because several public institutions have calculated their CO<sub>2</sub> emission and partly because the material for average emission factors from Statistics Denmark has been expanded by several sectors.

Generally, the emission factors from Statistics Denmark are on the decline, but for individual sectors it applies that additional emissions have been included in the statement and consequently the emission factors go up. This applies to emission factors for selected sectors in the category Other corporate loans and is the reason behind the increase in the emission intensity.

It applies to transport that despite a practically unchanged business volume, emission was reduced considerably. The reason is that the emission factors for transport for the majority of the sectors decline by 20%-28%.

For agriculture and fishing, the emission intensity remains unchanged from 2020 to 2021, which implies that a fall in business volume results in a fall in emission.

Tables 3 and 4 show loans broken down by personal and corporate clients and products and selected industries.

**Table 3 - Loan portfolio and CO<sub>2</sub> emission**

	Business volume DKKm				Emission tonnes CO <sub>2</sub>			
	2021	2020	2019	Change 21/20	2021	2020	2019	Change 21/20
<b>Personal Clients</b>	<b>185,978</b>	<b>195,860</b>	<b>197,570</b>	<b>-9,882</b>	<b>299,427</b>	<b>478,391</b>	<b>499,917</b>	<b>-178,964</b>
Car loans	12,124	10,065	10,168	2,059	175,612	251,995	268,014	-76,383
Home loans	173,854	185,795	187,402	-11,941	123,815	226,396	231,903	-102,581
<b>Corporate clients</b>	<b>241,615</b>	<b>222,518</b>	<b>219,621</b>	<b>19,097</b>	<b>920,101</b>	<b>1,001,238</b>	<b>1,107,697</b>	<b>-81,136</b>
Transport	5,377	5,183	4,316	194	384,562	444,581	484,425	-60,019
Agriculture and fishing	12,187	13,158	15,934	-971	264,056	284,800	341,738	-20,744
Mortgage loans	169,420	162,609	163,251	6,811	116,105	149,970	154,357	-33,865
Manufacturing industry	8,790	7,278	8,502	1,512	70,657	63,663	74,245	6,994
Other corporate loans	45,840	34,290	27,618	11,551	84,722	58,223	52,932	26,498
<b>Total</b>	<b>427,593</b>	<b>418,378</b>	<b>417,191</b>	<b>9,215</b>	<b>1,219,529</b>	<b>1,479,629</b>	<b>1,607,614</b>	<b>-260,100</b>

Note: Business volume for which no CO<sub>2</sub> emission data are available has been left out of the estimate. The comprehensive business volume and the movements from year to year covered by the analysis are not comparable to Jyske Bank's traditional measuring of total assets.

**Table 4 – Emission intensity**

	Emission intensity tonnes CO <sub>2</sub> per DKKm			
	2021	2020	2019	Change 21/20
<b>Personal Clients</b>	<b>1.61</b>	<b>2.44</b>	<b>2.53</b>	<b>-0.83</b>
Car loans	14.48	25.04	26.36	-10.56
Home loans	0.71	1.22	1.24	-0.51
<b>Corporate clients</b>	<b>3.81</b>	<b>4.50</b>	<b>5.04</b>	<b>-0.69</b>
Transport	71.51	85.77	112.24	-14.26
Agriculture and fishing	21.67	21.64	21.45	0.03
Mortgage loans	0.69	0.92	0.95	-0.23
Manufacturing industry	8.04	8.75	8.73	-0.71
Other corporate loans	1.85	1.70	1.92	0.15
<b>Total emission intensity</b>	<b>2.85</b>	<b>3.54</b>	<b>3.85</b>	<b>-0.69</b>

## Estimation of CO<sub>2</sub> emission

We apply the common CO<sub>2</sub> model prepared by Finance Denmark for estimation of CO<sub>2</sub> emission. The model describes the fundamental principles for calculation of CO<sub>2</sub> emission and detailed methods of estimation for 10 asset classes. The model is developed on an ongoing basis, and Jyske Bank still participates actively in this work.

Due to our repeated estimations, we have gained much experience, which will be included in the further work with our impact analysis method. We have for instance experienced that lack of simultaneity between the calculation time and the latest reporting of data from the clients may be of great importance to the estimated emission. Material changes to the client's structure and business model, for instance mergers, divestment or large investments during the period between the company's reporting and Jyske Bank's calculation time will have a significant consequence for emission and intensity.

## Investments

Jyske Bank applies data from MSCI for estimation of emission relating to investments in equities and corporate bonds. The data from MSCI consist of both company-specific data and estimated emissions. In connection with mortgage bonds, data from the individual mortgage credit institution have been applied where these data have been available. If the accessible data do not cover the entire cover pool, estimated data are used.

## Loans

The estimation of CO<sub>2</sub> emission relating to bank loans is extensively based on Danish sector averages prepared by Statistics Denmark. Company-specific CO<sub>2</sub> data are preferred, and therefore sector averages are gradually replaced by company-specific CO<sub>2</sub> data.

The CO<sub>2</sub> emission relating to mortgage loans and bank mortgage loans for personal clients has been estimated on the basis of the public energy rating and the energy source of the properties. If such rating does not exist, the estimate is based on other knowledge of the individual property (energy source, age of the building, size, geographical location).

For a further description of the method used, reference is made to the document PRB Impact analysis - Method which is available at: [www.jyskebank.dk/ir/baeredygtighed/impactanalyser](http://www.jyskebank.dk/ir/baeredygtighed/impactanalyser).

## Data quality

The data quality of the CO<sub>2</sub> estimates is assessed on the basis of the PCAF data quality score. Table 5 below shows the share of business volume in the individual scores and a weighted data quality score.

Table 5 - Data quality, PCAF score

	Score 1	Score 2	Score 3	Score 4	Score 5	Weighted Data quality
<b>Investments</b>	<b>0%</b>	<b>30%</b>	<b>0%</b>	<b>0%</b>	<b>70%</b>	<b>4.09</b>
Asset management	0%	45%	0%	0%	55%	3.66
Own Portfolio	0%	6%	0%	0%	94%	4.83
<b>Loans and advances</b>	<b>&lt;1%</b>	<b>4%</b>	<b>55%</b>	<b>0%</b>	<b>40%</b>	<b>3.76</b>
Home loans, Personal Clients	0%	0%	59%	0%	41%	3.83
Car loans, Personal Clients	0%	87%	0%	13%	0%	2.27
Transport	0%	6%	0%	0%	94%	4.83
Agriculture	0%	8%	0%	0%	92%	4.75
Mortgage loans, Corporate Clients	0%	0%	79%	0%	21%	3.41
Manufacturing industry	0%	12%	0%	0%	88%	4.64
Other, Corporate Clients	<1%	12%	1%	0%	86%	4.59
<b>Total</b>	<b>&lt;1%</b>	<b>13%</b>	<b>38%</b>	<b>&lt;1%</b>	<b>49%</b>	<b>3.86</b>

In general, the data quality improved from 2020 to 2021 through inclusion of several company-specific data and through a change of the method for the calculation of cars where this estimate makes calculations of the individual car model. It will continue to be a focus area for Jyske Bank to increase the share of company-specific data for estimation of CO<sub>2</sub> emission.