

## Intisari

Penelitian ini bertujuan untuk mengevaluasi pengaruh risiko iklim terhadap stabilitas bank komersial di 54 negara selama periode 2011 hingga 2024. Secara khusus, penelitian ini juga menguji apakah strategi diversifikasi bank mampu memitigasi pengaruh risiko iklim terhadap stabilitas bank. Risiko iklim dalam penelitian ini dibedakan menjadi dua dimensi utama, yaitu risiko transisi dan risiko fisik. Sementara itu, stabilitas bank diukur menggunakan pendekatan mikroprudensial melalui Z-score dan dekomposisi komponennya.

Risiko transisi diukur menggunakan *Climate Change Performance Index* (CCPI) yang mencerminkan kinerja transisi iklim suatu negara. Sementara itu, risiko fisik diukur menggunakan *World Risk Index* (WRI) yang mengukur tingkat paparan dan kerentanan negara terhadap bencana alam dan kejadian cuaca ekstrem. Variabel diversifikasi bank mencakup diversifikasi pinjaman, diversifikasi aset, diversifikasi simpanan, dan diversifikasi pendapatan. Data bank diperoleh dari basis data BankFocus, sedangkan variabel makroekonomi diperoleh dari World Bank. Analisis empiris dilakukan menggunakan regresi data panel dan pendekatan *System Generalized Method of Moments* untuk mengatasi potensi endogenitas.

Hasil penelitian menunjukkan bahwa peningkatan risiko iklim, baik risiko transisi maupun risiko fisik, secara signifikan menurunkan stabilitas bank. Menariknya, strategi diversifikasi bank terbukti mampu memitigasi dampak negatif tersebut. Diversifikasi pinjaman, aset, simpanan, dan pendapatan berperan sebagai mekanisme penyebaran risiko yang meningkatkan ketahanan bank terhadap guncangan yang berasal dari perubahan iklim. Analisis tambahan juga menunjukkan bahwa pengaruh risiko iklim terhadap stabilitas bank bervariasi antar karakteristik sistem perbankan, seperti perbedaan antara negara maju dan negara berkembang, periode krisis Covid dan non-Covid, serta tingkat kapitalisasi bank.

Penelitian ini memberikan beberapa rekomendasi kebijakan bagi regulator dan industri perbankan. Otoritas keuangan perlu mengintegrasikan risiko iklim, baik risiko fisik maupun risiko transisi, ke dalam kerangka pengawasan perbankan melalui penguatan regulasi prudensial dan pengembangan *climate stress testing*. Selain itu, regulator perlu mendorong bank untuk memperkuat strategi diversifikasi portofolio guna meningkatkan ketahanan terhadap guncangan yang berasal dari perubahan iklim. Integrasi manajemen risiko iklim dan kebijakan diversifikasi diharapkan dapat mendukung stabilitas sektor perbankan di tengah meningkatnya risiko perubahan iklim global.

**Kata kunci:** risiko iklim, stabilitas bank, diversifikasi bank, risiko fisik, risiko transisi

### ***Abstract***

*This study aims to evaluate the impact of climate risk on the stability of commercial banks in 54 countries during the period 2011 to 2024. Specifically, this study also examines whether bank diversification strategies can mitigate the impact of climate risk on bank stability. Climate risk in this study is divided into two main dimensions, namely transition risk and physical risk. Meanwhile, bank stability is measured using a microprudential approach through Z-scores and component decomposition.*

*Transition risk is measured using the Climate Change Performance Index (CCPI), which reflects a country's climate transition performance. Meanwhile, physical risk is measured using the World Risk Index (WRI), which measures a country's exposure and vulnerability to natural disasters and extreme weather events. Bank diversification variables include loan diversification, asset diversification, deposit diversification, and income diversification. Bank data was obtained from the BankFocus database, while macroeconomic variables were obtained from the World Bank. Empirical analysis was conducted using panel data regression and the System Generalized Method of Moments approach to address potential endogeneity.*

*The results of the study show that increased climate risk, both transition risk and physical risk, significantly reduces bank stability. Interestingly, bank diversification strategies have been proven to mitigate these negative impacts. Diversification of loans, assets, deposits, and income acts as a risk-spreading mechanism that enhances banks' resilience to shocks arising from climate change. Additional analysis also shows that the impact of climate risk on bank stability varies across banking system characteristics, such as differences between developed and developing countries, Covid and non-Covid crisis periods, and bank capitalization levels.*

*This study provides several policy recommendations for regulators and the banking industry. Financial authorities need to integrate climate risks, both physical and transition risks, into the banking supervisory framework through strengthening prudential regulations and developing climate stress testing. In addition, regulators need to encourage banks to strengthen their portfolio diversification strategies to increase resilience to shocks arising from climate change. The integration of climate risk management and diversification policies is expected to support the stability of the banking sector amid increasing global climate change risks.*

**Keywords:** *climate risk, bank stability, bank diversification, physical risk, transition risk.*