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To,
Halle Institute for Economic Research (IWH),
Germany

September 13, 2026

Application for the IWH-DPE

Dear Sir/Madam,

I am keenly applying for this position. With two quantitatively rigorous master's degrees in economics, extensive empirical experience and a solid grounding in economics, I can effectively contribute to your research objectives. My **interests lie at the intersection of macroeconomics and environmental economics**. Thanks to IWH's cutting-edge research and the opportunities it provides, this position will facilitate my long-term goals of pursuing an academic research career.

I pursued MSc Financial Economics at the University of Manchester. I consistently applied economic models and econometric techniques to explore growth dynamics. The curriculum sharpened my essential quantitative skills and core economic theories. Consequently, **I scored 86 (second highest in a cohort of 90 students) in my master's thesis**.

For broader training, I pursued an MSc in Economics at the University of Tübingen. This programme complemented my previous studies and deepened my knowledge, especially in macroeconomic theories and econometric techniques. In my master's thesis, I **applied two-step system GMM, and panel error correction** techniques. This taught me to **develop empirically testable hypotheses while overcoming challenges like data scarcity and complexities in multivariate analysis**.

I have also gained extensive research experience. I interned at the University of Tübingen, contributing to projects on the history of inequality and growth. At the Deutsche Bundesbank, I examined how political orientations shape lending behaviour, while developing core microdata skills. At the NCAER¹, I researched at the macroeconomic centre and translated theoretical insights into policy recommendations. I led a project to publication using a **VECM to study the heterogeneous effects of climate change on India's growth, fiscal deficit, and inflation**. While inflation and growth prospects worsen, I find a counterintuitive decline in the fiscal deficit, which I attribute to higher public and private adaptation/mitigation investment boosting activity and tax revenues enough to offset added spending. Across other projects, I also used **modern causal inference techniques** (staggered DiD designs with principal-component to address non-parallel trends, CCE-MG estimator for heterogeneous treatment effects, CS-DL model, dynamic error-correction, and the generalised synthetic control methods). As an RA to Prof. Ester Faia, I supported empirical work on monetary and fiscal policy, managing large micro datasets and building econometric models. Using **local projections and SVARs**, I analysed questions like the effects of monetary policy shocks on labour market outcomes. At SAFE, I support a project on U.S. welfare reforms linking household survey data with policy variation. I derive treatment definitions from legislation and administrative sources, build large CPS panels, and estimate triple-difference models to quantify effects on labour supply, borrowing, and income-risk exposure. In parallel, I am working with Prof. George Bratsiotis to develop a **green New Keynesian DSGE model to study how climate-oriented monetary and macroprudential policies affect macroeconomic outcomes, financial stability and welfare**.

¹National Council of Applied Economic Research, India

Concluding, my broad economics training, strong quantitative skills, publication record, and hands-on research experience have prepared me well for this position. As a PhD is central to my long-term goals, I am committed to contributing fully to your research group. My interests align closely with your team's agenda and faculty expertise, making me a strong fit.

Regards,

A handwritten signature in blue ink that reads "Swapnanil Sengupta". The signature is written in a cursive, flowing style.

SWAPNANIL SENGUPTA