AI-Driven Economic Safety Nets: Restricting the Macroeconomic Disruptions of AGI Deployment

Summary

In the face of rapid AI and AGI advancements, this project aims to investigate potential socio-economic disruptions, especially within labor markets and income distribution. The focus will be on conceptualizing economic safety mechanisms to counteract the adverse effects of AGI deployment, ensuring a smoother societal transition.

The non-summary

Motivation: With AGI developments on the horizon, the potential reshaping of our economic landscape is to be expected. While AGI offers efficiency, its unchecked deployment may introduce socio-economic disparities, thus threatening societal harmony and cohesion.

Steps Involved:

- **Understanding AGI in Economic Terms:** This phase will involve:
    - A literature review to trace AGI's potential trajectory, related historical economic impacts, and projected trends.
    - Interviews with leading AI and AGI experts, and economists who specialize in the effects of technological progress, to obtain firsthand insights into anticipated economic repercussions.
    - Creation of a repository of data, insights, and preliminary findings.
- **Policy Framework:** This will be a two-fold process:
    - First, we'll identify existing economic policies and gauge their efficacy in the context of AGI disruptions. Areas like Universal Basic Income, taxation changes in the era of automation, and transition policies for disrupted sectors will be analyzed.
    - Second, based on our findings, we'll craft new or revised policy recommendations tailored to specific economic structures and regions, ensuring their relevance and feasibility.

(We have decided to prioritize the aforementioned steps for depth and quality over a wider coverage.)

Scope: The project emphasizes *economic* safety mechanisms following AGI deployments. Technical safety of AGI will be briefly acknowledged.

Output

- **Research Paper:** This will serve as a foundational document that outlines our findings, supported by data, interviews, and case studies. It aims to provide a roadmap for global economic policy adjustments in the AGI context.
- **Concise Policy Brief:** For quick and easy dissemination among policymakers, we'll extract the key findings and recommendations from our research and present them in concise, actionable formats tailored to different economic structures.
- **Recommendation Documents:** These will be detailed guides that expand on our policy briefs, offering step-by-step implementation strategies, potential pitfalls, and case studies to illustrate successful applications.

Risks and downsides

The primary challenge is the potential oversimplification of AI systems in our models. Our mitigation strategy will involve engaging closely with AI experts. Another concern is potential resistance from influential AI companies when it comes to disseminating policy recommendations. Iterative stakeholder engagement will be our approach to refine suggestions.

Acknowledgements

This proposal builds upon foundational works in economics and AI, and insights gained while researching or working at several think-tanks and research institutes in technology governance, international affairs and economics, including with members of the EA Econ and Global Priorities Institute's communities.

Team

Team Size: Aiming for a team of 4-9: 1 Research Lead, 1 Team Coordinator, 1-2 AI Lead(s), and 1-5 Economist(s).

1. **Research Lead**
    a. **Role:** Oversee the project's direction, maintain quality and adherence to objectives, and serve as the primary point of contact.
    b. **Background:** With PhD training in Economics and research experience in AI ethics, global governance, and economics, I possess the interdisciplinary knowledge to manage this project to completion.
2. **Team Coordinator**
    a. Role: Organize meetings, ensure timelines are met, facilitate communication within the team, and manage documentation.
    b. Skill Requirement: Exceptional organizational skills, familiarity with project management tools, and experience in coordinating interdisciplinary research teams.
3. **AI Lead(s)**

    a. Role: Provide insights into AGI's capabilities, future trajectories, and potential economic impacts. Also, aid in bridging the knowledge gap between AI technological advancements and economic analyses.
    b. Skill Requirement: Deep understanding of AGI development, hands-on experience with AI modeling, and familiarity with global economic structures.
4. **Economist(s)**
    a. Role: Lead the economic analysis, model potential scenarios of AGI deployment, and contribute to the policy framework design.
    b. Skill Requirement: Understanding of macroeconomics, experience in policy formulation, and an understanding of AGI's potential economic ramifications.[1]

Note on Collaboration and Tailoring

Once our team is assembled, we will schedule an initial meeting to discuss the project in greater detail. This discussion will serve as an opportunity for all team members to bring forward their interests and expertise in the field of AGI and economics. **Our goal is to align the project's objectives with the passions and specializations of the team to foster a collaborative and engaging research environment.** This will ensure that our approach is not only interdisciplinary but also highly attuned to the individual contributions that each team member can provide.

Question? Write to jonachro@gmail.com

Relevant readings

- **Trammell & Korinek (2023)** https://www.nber.org/papers/w31815
- **Acemoglu & Lensman (2023)** https://www.nber.org/papers/w31461
- **Van Reenen (2023)** https://cepr.org/multimedia/ais-impact-jobs
- **Eloundou et al. (2023)** https://arxiv.org/abs/2303.10130
- **Susskind (2023)** https://www.brookings.edu/wp-content/uploads/2023/01/Work-and-meaning-in-the-age-of-AI_Final.pdf
- **Davidson (2023)** https://www.openphilanthropy.org/research/what-a-compute-centric-framework-says-about-takeoff-speeds/ and https://takeoffspeeds.com/description.html
- **Clancy & Besiroglu (2023)** https://asteriskmag.com/issues/03/the-great-inflection-a-debate-about-ai-and-explosive-growth
- Korinek & Juelfs (2022) https://www.nber.org/papers/w30172

[1] A degree in economics is not a strict requirement for this role. We are seeking individuals who have a keen interest in economic theory and its application to the AGI context. A willingness to deeply engage with economic thought and contribute to discussions on socioeconomic impacts is paramount. We value diverse perspectives and believe that a robust engagement with economic ideas can come from various academic and professional backgrounds.

- Brynjolfsson et al. (2021) https://www.aeaweb.org/articles?id=10.1257/mac.20180386
- Acemoglu & Restrepo (2020) https://www.journals.uchicago.edu/doi/abs/10.1086/705716
- Acemoglu & Restrepo (2019a) https://www.aeaweb.org/articles?id=10.1257/jep.33.2.3
- Acemoglu & Restrepo (2019b) https://www.nber.org/system/files/chapters/c14027/c14027.pdf
- Acemoglu & Restrepo (2018) https://www.aeaweb.org/articles?id=10.1257/aer.20160696
- ILO (2018) https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/wcms_647306.pdf
- Aghion et al. (2017) https://www.nber.org/papers/w23928
- Also: https://web.stanford.edu/~chadj/AJJ-AIandGrowth.pdf
- Other: Writing tips for Ph.D. Students

Provisional timeline

Jan 13-14: Opening weekend. First meeting with your teammates and one-on-one chats.

Jan 15 – Apr 28: Research is happening. Teams meet weekly and plan their work hours.

January

Week 1 (Jan 5-11): Team Kick-off Meeting. Introduction to project and sub-topics. Assign team members to specific research areas based on expertise and interest.
Week 2 (Jan 12-18): Begin in-depth research on all topics. Regular team meetings for updates and coordination.
Week 3 (Jan 19-25): Continue research. Start collating data and initial findings.
Week 4 (Jan 26 - Feb 1): Draft initial outlines for each topic area.

February

Week 5 (Feb 2-8): Deepen research and begin expert interviews. Start drafting policy recommendations.
Week 6 (Feb 9-15): Analyze interview data. Continue refinement of policy frameworks.
Week 7 (Feb 16-22): Draft initial sections of the research paper. Weekly progress review.
Week 8 (Feb 23-29): Consolidate findings. Prepare an interim report for feedback.

March

Week 9 (Mar 1-7): Integrate feedback into research. Enhance policy recommendations.

Week 10 (Mar 8-14): Continue writing and refining the research paper. Focus on coherence across different sections.
Week 11 (Mar 15-21): Finalize the first complete draft of the research paper.
Week 12 (Mar 22-28): Review and edit the draft. Prepare policy briefs and recommendation documents.

April

Week 13 (Mar 29 - Apr 4): Finalize all documents. Start preparing for final presentations.
Week 14 (Apr 5-11): Rehearse presentations. Final edits based on rehearsals.
Week 15 (Apr 12-18): Last team meetings to finalize presentations.
Week 16 (Apr 19-25): Presentations and final submissions.

April 25-28: Final presentations spread over four days.

Sub-topics to think about

1. How AGI affects global trade, with a focus on policy responses in different economic regions.
2. How AGI influences labor markets, comparing developed and developing countries.
3. How AGI could widen or bridge income gaps, and the role of wealth redistribution mechanisms.
4. The rate of AGI adoption in different regions and its economic consequences.
5. Policies tailored to protect workers in various sectors, considering regional differences.
6. How taxation and UBI can be effectively implemented in the AGI era.
7. Regulatory strategies and novel economic models suited for the AI-driven economy.