Research Statement

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My research explores how globalization and technological change shape labor markets, firms, and income distribution, with a particular emphasis on developing economies. I combine rich microdata with rigorous empirical methods to study the heterogeneous effects of international trade and automation, seeking to understand both their local consequences and their global implications. Across my work, I aim to link these structural transformations to broader questions about economic development, inequality, social mobility, and resource utilization.

Motivation and Research Agenda

Over the past decades, the world economy has been transformed by several forces related to widespread globalization such as the dramatic expansion of international trade and the rapid diffusion of automation technologies and global connectivity. These forces create opportunities for productivity growth and integration into world markets, but they also generate profound distributional tensions. Relationships between firms and workers are being reconfigures, affecting labor markets, altering the structure of employment, leading to increased income inequality. My research seeks to provide a unified understanding of these processes by addressing two key interconnected questions:

1. How do trade and technological shocks affect firms, workers, and local labor markets in developing economies?
2. How do these global forces reshape the distribution of income, opportunities, and the prospects for inclusive development?

Global Trade Integration and Firms, Workers, and Local Labor Markets

In one strand of my research, I examine the consequences of trade expansion for firms and workers. Using detailed data on Chilean firms, workers, and LLMs, I show that trade shocks have heterogeneous effects depending on firms' productivity and workers' characteristics. I find that increased exposure to import competition leads to the exit of lower productivity firms, while regions experience significant labor market adjustments, including declines in wages for vulnerable workers and reallocation toward the informal economy. On the other hand, regions experiencing increased export demand experience wage gains, reallocation toward formal jobs, and lower relative increases in tertiary education enrollment than less exposed areas.

In other related contribution, I study how firms adjust internally when integrating into global markets. I document that exporting to high-income countries is associated with more complex organizational structures within firms. This suggests that globalization does not merely reallocate resources across sectors, but also reshapes firms from the inside, influencing how production is coordinated and how workers are managed.

These findings highlight the dual nature of globalization: while access to foreign markets fosters efficiency, both import competition and export growth can also deepen regional disparities and generate persistent distributional conflict.

Building on this work, I study the long-run implications of trade shocks for intergenerational mobility. Using Brazilian household-level data, I document that workers hit by negative trade shocks exhibit lower upward mobility for their children, especially in low-income families, suggesting that globalization can have lasting effects on social cohesion and opportunities for the next generation.

Automation, Robots, Labor Markets and Inequality

A second line of my research focuses on the labor market consequences of industrial automation. In recent work, I estimate the causal effect of robot adoption on the top of the income distribution across U.S. metropolitan areas. I find robust evidence that automation increases top income inequality by concentrating wealth among capital owners, managers, and highly skilled professionals. This result helps explain why, despite widespread productivity gains, many local labor markets experience rising disparities without corresponding increases in average wages or labor shares.

Extending this analysis to Latin America, I examine how automation affects employment, wages, and informality across different worker groups defined by gender, age, education, and income. My findings reveal that the disruptive effects of technology are highly uneven, with low-skilled and informal workers bearing the greatest burden, while high-skilled groups capture most of the benefits. Relatedly, exposed regions exhibit lower relative progress toward poverty and inequality reduction.

Some of my most recent works document striking similarities for labor market adjustment in response to robot adoption in East Asian and Pacific countries. One interesting difference, however, is that productivity gains in response to technological change have created more employment opportunities than in LAC, generating incentives for in-migrating towards rapidly growing locations. A deeper study for Vietnam helps me elucidate that scale effects related to export growth is one of the leading explanations for this increased geographic labor mobility.

Distributional Dynamics and Policy Implications

A recurring theme in my work is the **distributional impact** of global economic integration. By decomposing changes in income distribution in Argentina over two decades, I show how macroeconomic shocks, labor market transformations, and policy responses interact to produce sharp shifts in inequality. These micro-based decompositions provide a granular understanding of how structural changes translate into winners and losers within society.

Relatedly, I have studied how devaluations have unequal effects on purchasing power across workers with varying income levels, given their different consumption baskets, assets and savings, and possibilities of substitution towards lower quality goods and services in response to negative income shocks.

Future Research

Looking ahead, I plan to deepen my exploration of **how technological change interact with global trade to affect resource utilization**. Additionally, I am interested in examining how these technologies affect gender gaps, occupational transitions, and the stability of middle-class employment. In addition, I aim to study policy mechanisms—such as education, training, and social insurance—that can mitigate the adverse distributional effects of globalization and technological change while fostering inclusive growth.

Broader Perspective and Summary

My research is grounded in empirical economics and primarily motivated by a broader concern: understanding how societies can navigate the tensions between material progress, social equity, and environmental sustainability. Globalization and automation hold tremendous potential to improve human well-being, but without deliberate policy interventions, they may instead exacerbate inequality, exert high pressure on resource scarcity, and undermine social cohesion. By combining rigorous empirical analysis with a focus on distributional outcomes, my work seeks to inform policies that promote both economic dynamism and shared prosperity.

In sum, my research agenda links up the study of trade, technology, and inequality to address a central question of our time: how can countries integrate into the global economy and harness technological change while preserving opportunities for all? By analyzing these issues through the lens of firms, workers, and communities, I aim to contribute to a richer understanding of the mechanisms that drive economic development and shape the future of society.

Main References

- César, A., and Brambilla, I. (2019). Import Price and Quality Adjustment after Exchange Rate Shocks. Ph.D. Thesis (main paper).

- César, A., and Falcone, G. (2020). Heterogeneous effects of Chinese import competition on Chilean manufacturing plants. Economía, 20(2), 1-60.

- César, A., Falcone, G., and Gasparini, L. (2021). Costs and benefits of trade shocks: Evidence from Chilean local labor markets. Labour Economics, 73, 102075.

- Brambilla, I., César, A., Falcone, G., and Gasparini, L. (2023). The impact of robots in Latin America: Evidence from local labor markets. World Development, 170, 106271.

- Brambilla, I., César, A., Falcone, G., Gasparini, L., and Lombardo, C. (2023). Routinization and employment: evidence for Latin America. Desarrollo y Sociedad, (95), 131-176.

- César, A. M., and Falcone, G. (2024). Local Economic Development Through Export-Led Growth: The Chilean Case. Latin American Economic Review, 33, 1-39.

- Brambilla, I., César, A., Falcone, G., and Porto, G. (2024). Organizational Hierarchies and Export Destinations. The World Bank Economic Review, 39(2), 229-259.

- Brambilla, I., César, A., Falcone, G., and Gasparini, L. (2025) Automation Trends and Labor Markets. Under review.

- César, A., Falcone, G., and Garriga, P. (2024). Robots and Top Income Inequality: Evidence from U.S. Metropolitan Areas. Under review.

- César, A., Falcone, G., Ciaschi, M., and Neidhöfer, G. (2024). Trade Shocks and Social Mobility: The Intergenerational Effect of Import Competition in Brazil. Under review.

- César, A., Arias, O., Fukuzawa, D., Trung Le, D. (2025). The (Unequal) Impact of Industrial Automation on Vietnam's Socio-Economic Transition.