

Central Question

What is the role of intermediaries in facilitating the creation of offshore tax havens?

- Using network theory to study intermediaries in the offshore ecosystem.
- Why intermediaries?
 - Key enablers of tax haven use and key mechanism perpetuating wealth inequality.
 - Reliable targets for regulation to combat tax avoidance/evasion.

Abstract I

Intermediaries form the links enabling tax haven use, contributing to tax avoidance and inequality. This study examines these actors as potential regulatory targets. Extending the network analysis of Chang et al. (2023) and drawing on Harrington's (2016) micro-sociological evidence, I analyze International Consortium of Investigative Journalists (ICIJ) leak data. Although ICIJ data has limitations for estimating avoidance scale, it permits generalization about intermediary roles within these networks. A novel agentic method is employed to enrich ICIJ data samples using available information about their role online.

Four propositions emerge: 1) The overall network displays scale-free properties, implying vulnerability to the loss of central intermediaries. 2) Intermediaries exhibit cultural specificity, often catering to distinct client countries and clientele. 3) Intermediary types perform different network roles with varying systemic importance as measured by degree. 4) Network structures respond dynamically to regulation and financial innovation, indicating they are not immutable. This analysis provides insight into the structure and potential vulnerabilities of tax haven networks through the lens of intermediary action.

- **Classic Models (Demand-Side):**

- Allingham-Sandmo (1972) model struggles with top-end evasion and difficult to study with classic audit studies (e.g., Kleven et al., 2011) have limitations .

- **Current Focus: Supply-Side** models are gaining traction.

- **Alternative Methods for Top-End Evasion:**

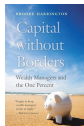
- Macro statistics (Zucman 2013; Johannesen & Zucman 2014; Alstadsæter et al. 2018).
- Micro leak data (Alstadsæter et al. 2019; Londoño-Vélez & Ávila-Mahecha 2021).
- Tax Amnesties (Guyton et al. 2021; Londoño-Vélez & Tortarolo 2022; Leenders et al. 2023).

- **Alstadsæter et al. (2019) Model:**

- Shifts focus to supply-side and intermediaries.
- Comparative statics on inequality, detection costs.

Challenge: Intermediary Data Scarcity

- Getting detailed data on intermediaries is extremely difficult.
- **Micro-Sociological Insights:** Brooke Harrington (2016) provides crucial qualitative understanding of intermediary roles.



Source: Harrington (2016)

- **Approach:** Network theory applied to unique ICIJ leak data (Pandora, Panama Papers, etc.).
- **Building on Prior Network Research:** Limited accounts exist (e.g., Chang et al., 2023), often focused on specific areas like sanctions.



PNAS Nexus, 2023, 2, 1–12
<https://doi.org/10.1093/pnasnexus/pgad051>
Advance access publication 28 February 2023
Research Report

Complex systems of secrecy: the offshore networks
of oligarchs

A Concrete Example: Intermediary Profile

Network Link (ICIJ Data):

Network around MICHAEL PAPAGEORGE, MR. (2 degrees of separation)



Michael Papageorge in leak data

Public Profile (Web Data):

The screenshot shows the public profile of Michael Papageorge on the HFS website. The header includes the HFS logo and the text "HELFIN FINANCIAL SERVICES". The main content area features a section titled "Michael Papageorge" with a detailed biography. The biography states that Michael Papageorge matriculated from Crawford College in Pretoria in 2010, was elected as Head boy of his year, and academically achieved 6 distinctions. He commenced tertiary studies at the University of Pretoria in 2011 and graduated with his Bachelor's in Accounting Sciences in 2015. Michael furthered his studies at the same university in 2016 to obtain his Honours degree in Accounting Sciences. Michael completed his honours and moved to London for 2 years to participate in the District District UK Chartered Accounting articles program. In 2018, Michael qualified as a Chartered Accountant (CA(SA)) and returned back to South Africa to join his father also Mike Papageorge at HFS Financial Services. One year later Michael qualified as a member of the Chartered Institute of Management accountants (CIMA) and in the same year, Michael became a member of the UK Association of Chartered accountants. In 2019 Michael started his Masters in Taxation through the University of Pretoria. In the year 2020 Michael graduated with second honours. His one in financial planning, through the University of the Free State (UFS). Michael completed this honours Top of his Class. Michael wrote the board exam for the Financial Planning Institute and Qualified as a Chartered Financial Planner (CFFP) in 2020. In 2021 Michael graduated with Masters in Philosophy of International Taxation with the Golden Key award and as a Top scholar.

Currently, Michael serves as the specialist of the high net worth individuals and international Tax Committees for the South African Institute of Taxation. Michael is also a board member of a medical company and the financial director of a property company.

Michael is a passionate financial adviser and has clients worldwide.

Michael has the following qualifications:

- CA(SA) (33074182) - SAICA

Micahel Papageorge online presence

Four Propositions About Intermediaries

- ① **Overall Vulnerability:** Network is scale-free (power-law distribution).
 - Loss of central intermediaries significantly disrupts the network.
 - Consistent with supply-side importance.
- ② **Cultural Specificity:** Intermediaries often cater to specific client countries/cultures.
 - Network structures vary by client country.
 - Differential vulnerability across countries.
- ③ **Diverse Roles:** Different intermediary types play distinct network roles.
 - Varying systemic importance (measured by degree, centrality etc.).
- ④ **Dynamic Networks:** Structure evolves with regulation and financial innovation.
 - Networks are not static or immutable.



Illustrative
Power-Law
Distribution

Data Cleaning

Significant effort required for data preparation and cleaning.

Datasets:

- **Primary:** ICIJ Offshore Leaks Database
- Sebastien Lafitte (2024) - History of Tax Haven Legal Innovations
- World Justice Project (WJP) - Rule of Law Index
- V-Dem - Regime Types & Democracy Data

Methods:

- **Primary:** Network Analysis
- Regression Analysis
 - Discontinuity Designs
 - OLS
- Time-Series Analysis

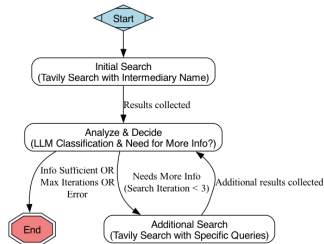
Methodological Innovation: Enriching Intermediary Data

Challenge: ICIJ data often lacks specific intermediary roles.

Solution: Agentic approach (LangGraph) to classify intermediaries based on available online information.

Typology

- Tax Experts
- Legal Experts
- Administrators (Company formation, secretarial)
- Investment Advisors



Agent Workflow (LangGraph)