GCC Migration - A Longitudinal Migrant Network Approach

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Summary

- GCC migration is underrepresented in the academic literature.
- To our knowledge, our paper is the first to explore GCC migration flow.
- This is because we are using an innovative dataset that estimates migration flow from stock data and other demographic factors.
- When looking at migrant flow data instead of stock data, the GCC is of even more importance.
- When performing network analysis on flow data, the GCC is the most central node in the network.
- Network analysis is an appropriate framework for migration analysis that can only be done with flow data, not stock data. There are policy implications.
- Our hope is our paper will encourage more focus on GCC migration.

Why is migration important?

- 10 out of 17 of the SDG goals are related to migration.
- “A trillion dollars on the sidewalk”
  - Researchers generally focus on the effects of immigration, the economy of the receiving country, instead of the effects of emigration, the economy of the sending country.
  - Literature survey says World GDP would increase by 67% to 147%, with a plausible gain of 20-60%.
  - Restrictions in labor movement is the greatest single class of distortions in the global economy
- For example, GCC remittances to Egypt totaled more than $12 billion in 2016, more than five times the amount of all official development aid received during the same time period
- Remittances are countercyclical. When a crisis erupts, investments tend to flee but migrants feel extra compelled to support their families.

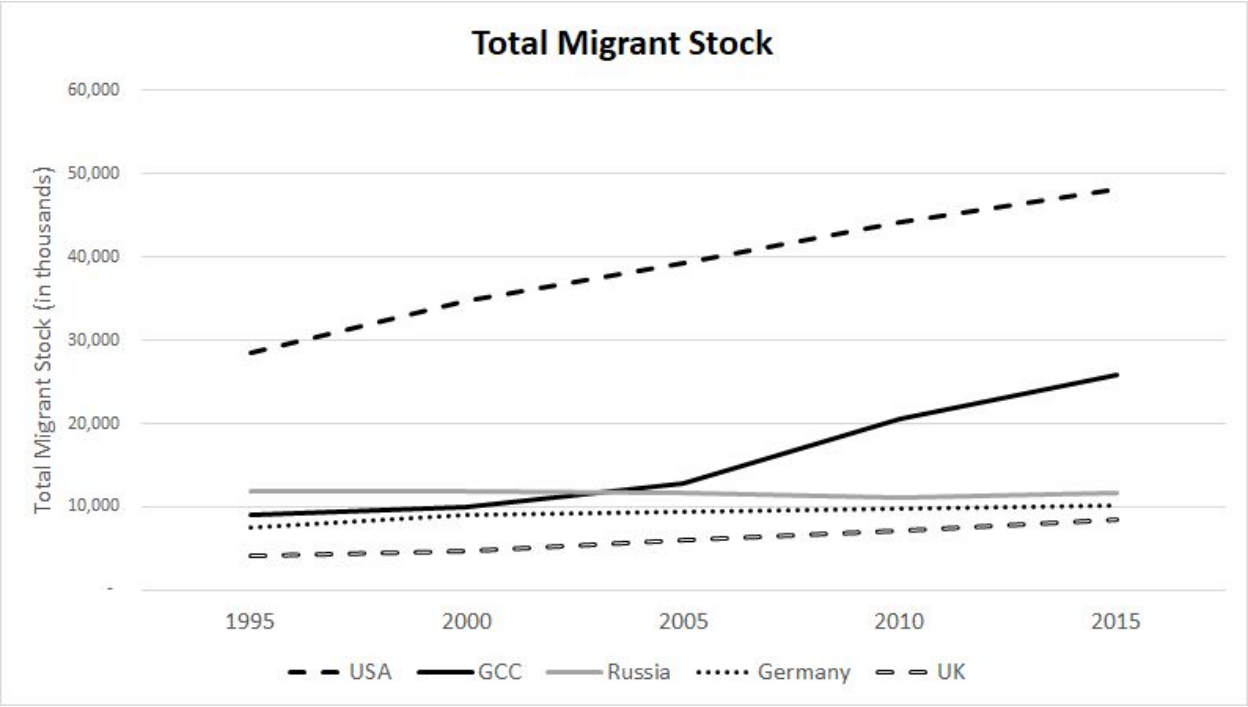
Literature Review

- GCC Migration corridor is important in terms of size (11% of global migrant stock). Most migrants are low-skilled work in the private sector. GCC migration is underrepresented in the academic literature.
- An early paper quantifying global migration brought attention to the need to look at migrant flow instead of stock in the analysis of the global movement of labor (Abel and Sanders 2014)
    - Ex., extreme case where outflows equals inflows means zero movement in stock.
    - One study performed topological analysis of migration over a four year period by calculating migration flow simply from the stock data of two separate years (Porat and Benguigui 2016).
    - Another study in 2016 explored the community evolution of global migration structure on stock data, not flow (Peres et. al 2016).
    - Another author uses network analysis for 202 countries to explore the determinants of network migration in the context of network structure on stock data, not flow (Windzio 2017).
- The same author ran a similar network analysis technique with intra-EU migration, but this time with flow data instead of stock (Lenkewitz et. al 2019).
- Goldade and Gunes use network analysis on internal US migration meaningfully with flow data (2017).
- One useful paper explored eight different network centrality measures on flow data (Aleskerov et. al 2016). However, the analysis was limited to only 45 countries that report flow, none of which were in the GCC.

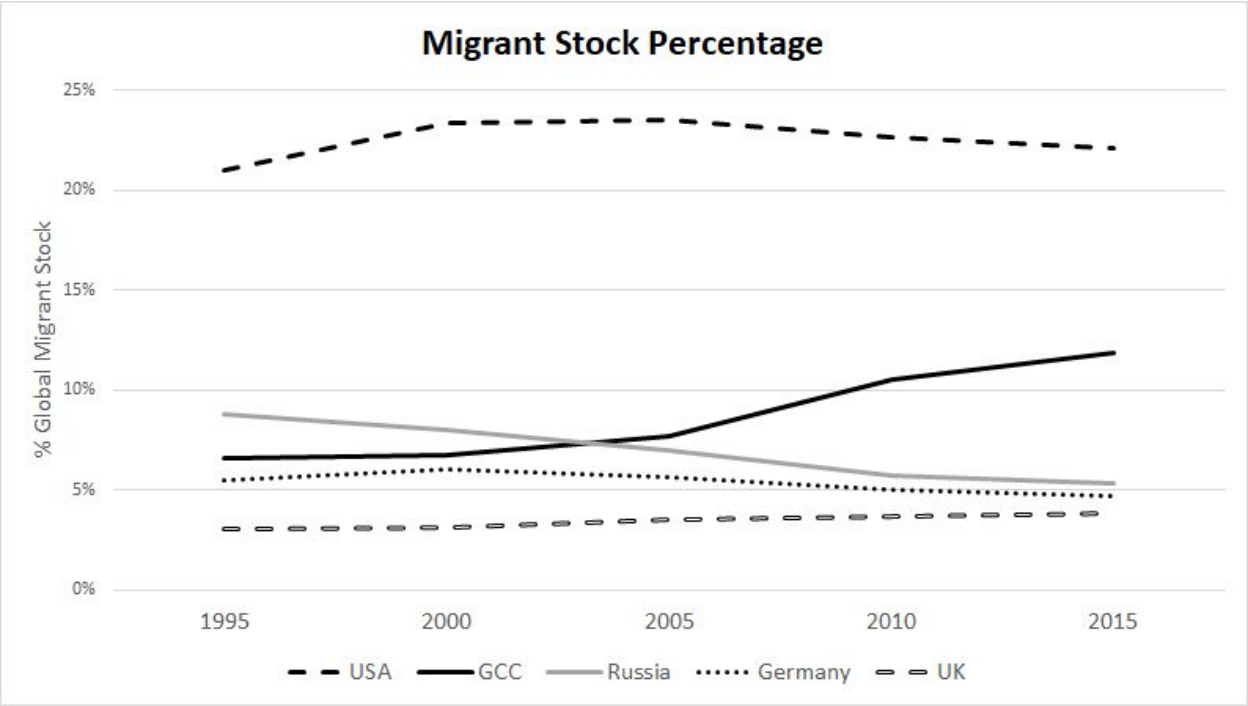
Data Source

- We are using an innovative dataset that estimates migration flow (Abel and Cohen 2019).
- Abel and Cohen systematically validated six different migration flow estimation methods using various demographic data.
- We chose the Pseudo-Bayesian estimation method of Azose and Raftery (2018), which uses more sophisticated form demographic accounting than just stock differencing.
    - Out of six estimation methods for calculating migrant flow data, this technique had the highest correlation with actual flow data reported for available periods.
- As illustrated in the upcoming slides, patterns of migrant stock are noticeably different from patterns of migrant flow.
- Data is five periods: 1990-1995; 1995-2000; 2000-2005; 2005-2010; 2010-2015
- 200 countries, with GCC grouped as a single node.

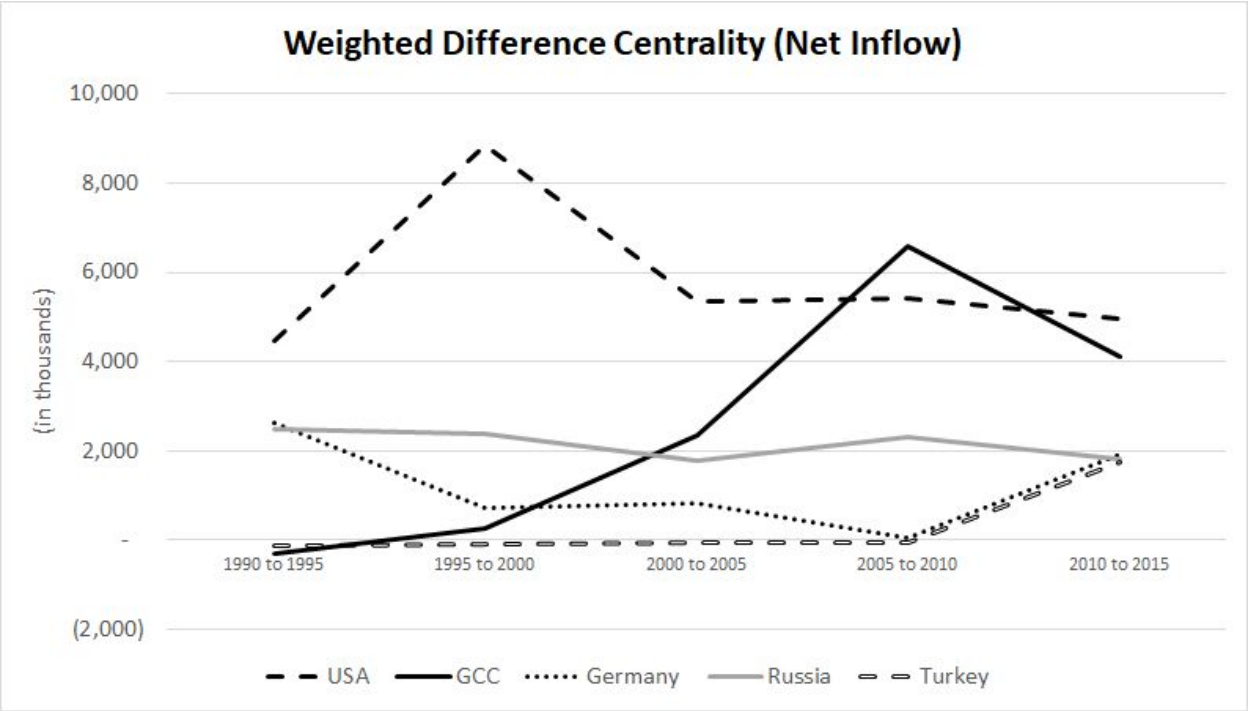
Total Migrant Stock



Total Migrant Percentage



Weighted Difference Centrality (Net Inflow)



Stock vs Flow Discrepancy

	Total Migrant Stock	Net Migrant Inflow
Migrant Inflow	Increases	Increases
Migrant Outflow	Decreases	Decreases
Migrant Deaths at Destination	Decreases	No effect
Migrant Births at Destination	Increases	No effect
Naturalization of Migrants	Decreases	No effect
Accumulation over time?	Yes	Not Applicable
Network Analysis?	Not Applicable	Applicable

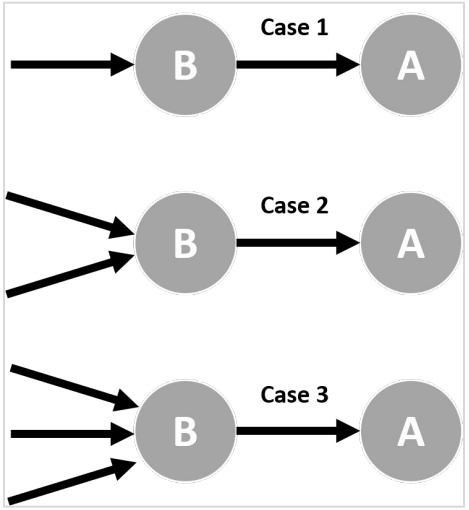
Discrepancy example: Algerians in France

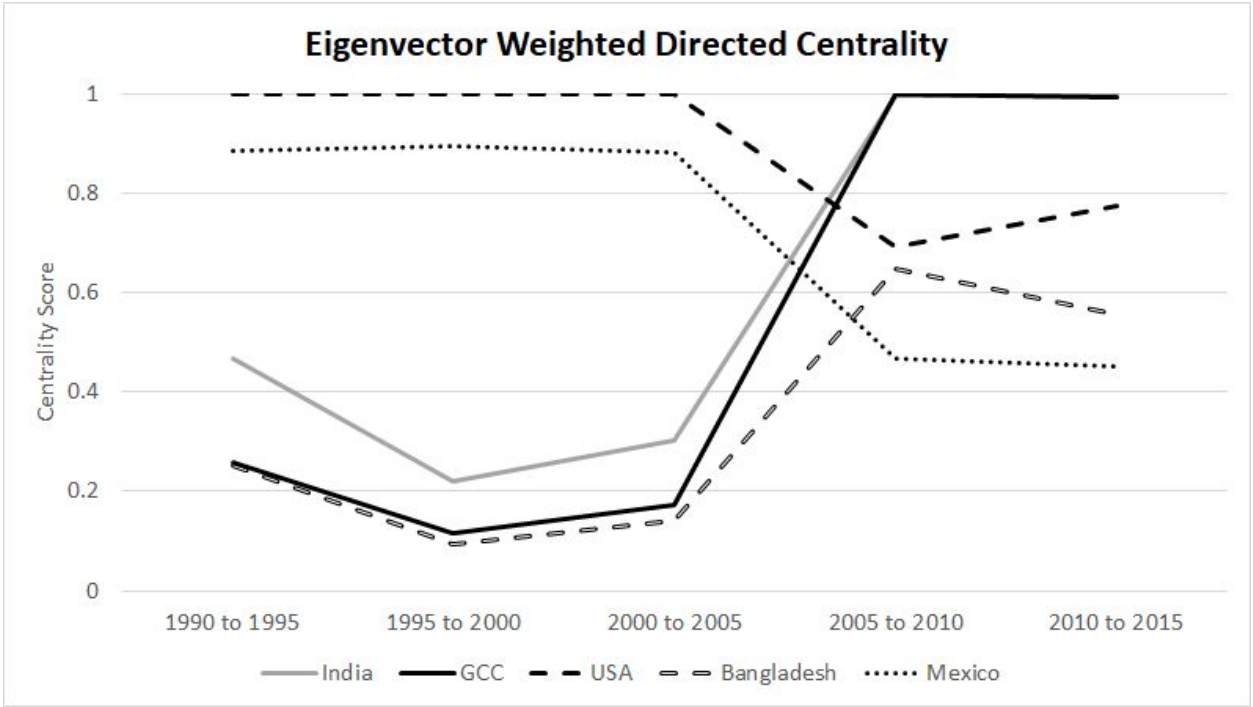
Year	Flow	Stock	Diff in Stock	Discrepancy
1995	130,326	6,087,993	-	-
2000	180,446	6,278,718	190,725	(10,279)
2005	257,184	6,737,600	458,882	(201,698)
2010	373,150	7,309,986	572,386	(199,236)
2015	254,858	7,874,172	564,186	(309,328)

Why we use Network Analysis for Migration

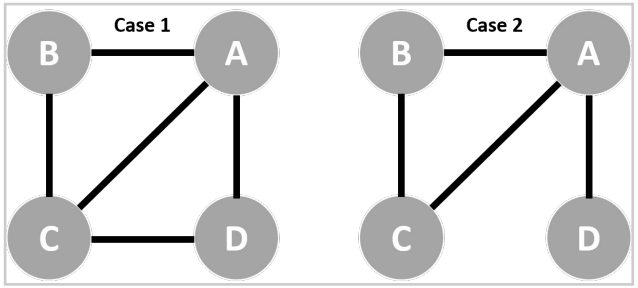
- Network analysis carries explicit theoretical commitments, like connectivity and centrality, which standard econometric methods fall short (2015).
- Our rationale for using a network conceptualization is because of the inherent network structure of migration.
- This allows us to make explicit observations of the network, and to speak about nodes in a relational manner.
- Network analysis has already been used extensively in other economics fields (Jackson et al. 2016).
- Networks help us better understand economic behavior (Jackson 2014).
- Network structure also has economic consequences (Jackson et al. 2017).
- Although migrant flow is more appropriate than migrant stock in network research, flow data is limited and excludes the GCC (UN DESA 2015).
- This means that the few network research papers on global migration using migration flows ignored the GCC.

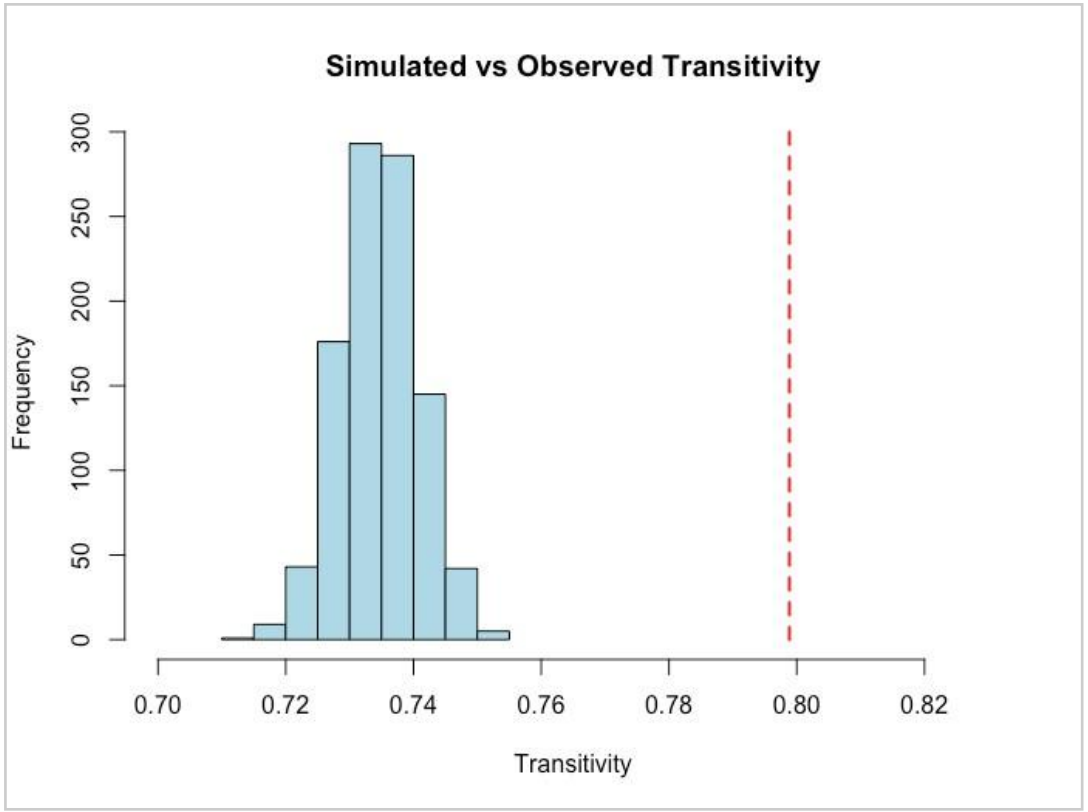
Eigenvector Weighted Directed Centrality





More Network Analysis





Policy Implications

- The highly transitive global migrant network fits with current migration theory, where states may have control in “structuring emigration through influencing the (initial) composition, rather than in affecting overall volumes and long-term trends” (de Haas 2011). This may be particularly relevant for the GCC as it moves from a sponsor-based kafala system to a more open contractual system that strengthens migrant rights (World Bank 2018).
- As a highly connected player in international migration, any policy considerations for the GCC needs an intimate understanding of the GCC’s network dependencies and influence.
- Future research can test theories and identify regularities using (a) random graph methods, (b) strategic, game theoretic techniques, and (c) hybrid statistical models to provide a network perspective to the more common analysis of push and pull factors.
- Future research can also focus on individual GCC countries and examine similarities and differences in their migration strategies.