## **Executive Summary**

The service sector, also referred to as the 'tertiary sector' of the economy, has been steadily increasing its contribution not only in domestic output but also in international trade and investment flows. Consumption and production of services such as financial, insurance and transport etc. are positively related to the development and income level of a country. Increased production and consumption of services in turn give rise to enhanced opportunities for services trade and movement of factors associated with the production of services.

Services trade requires special attention due to two distinguishing features of services. The first is the manner in which trade in services occurs through four modes of delivery, as defined by the World Trade Organization (WTO). As per the WTO classification, international trade in services can occur via four modes; Mode 1 or cross-border trade (services flows from the territory of one Member into the territory of another Member), Mode 2 or consumption abroad (movement of a consumer from one country to another to obtain a service), Mode 3 or commercial presence (establishment of a service provider through investment, ownership, or lease of premises in another country to provide a service), and Mode 4 or movement of natural persons (temporary cross border movement of service providers from one country to another to supply a service). This modal approach clearly signifies the importance of factor mobility (capital and labor) in producing and trading various types of services. The second distinguishing feature of services trade is that it is generally subject to domestic regulatory barriers as opposed to tariff and non tariff barriers that are used to restrict goods trade. Several studies have highlighted the importance of regulatory measures such as licensing and qualification requirements; data protection legislation; standards; codes of conduct; and registration, approval, and authorization requirements in international trade in services. Both these distinguishing features are interlinked as the relative importance of each mode of service delivery is determined by the regulatory environment prevailing among the trading countries.

This dissertation is devoted to understanding the nature and incidence of regulatory regimes affecting Modes 3 and 4 of services trade for selected sectors and markets. It consists of three segments. The first segment is devoted to understanding the regulatory barriers affecting Mode 3 (capital mobility) of service delivery and their resulting impact on mode 3 imports in selected services. The second segment examines the regulatory barriers affecting Mode 4 (cross border labor mobility) of service delivery. The final segment discusses conceptually and analytically regulatory barriers affecting capital and labour mobility in services trade and the implications of liberalizing these barriers for availability and affordability of these services and for welfare at large.

The first two segments of the dissertation consider India as the focus country. For analyzing Mode 3 regulations, India is considered as the service importing, i.e., capital receiving country. For this purpose, the study considers regulatory barriers imposed on commercial presence of foreign investors in India for selected intermediate (producer) services, namely, telecommunication, banking, maritime transport and air transport services. This study quantifies the incidence of trade barriers in each of these four producer services by creating restrictiveness indices for each sector and distinguishing between the contribution of 'Behind the Border' (BtB) versus 'At the Border' barriers to these indices over time. The main objective is to assess the importance of BtB regulations in determining the total regulatory environment in these key producer services in India and to assess the extent of liberalization in the BtB component. The study also empirically examines the relationship between the total and the BtB specific indices and trade and investment flows in these selected services and in related areas for the case of India. The templates for quantifying regulatory restrictiveness in these four producer services are based on earlier studies but suitably modified to include new BtB regulations and to reflect the relative importance of BtB regulations in the overall regulatory environment.

In the case of Mode 4 restrictions, the study considers India as the service exporting country and takes into account the regulatory barriers imposed by selected developed country markets on the movement of Indian service professionals in two sectors, namely, Information Technology (IT) and Healthcare (Nursing) services. The developed country

markets considered for this purpose are Australia, Canada, UK and USA. This study develops templates to quantify the qualitative nature of regulatory barriers affecting Mode 4 of service delivery in selected service sectors. It also constructs restrictiveness indices for the pre and post-recession periods to assess the changes in the regulatory environment affecting Indian service professionals movement to the selected countries after the recent financial crisis of 2008.

This study finds that for Mode 3 services trade, the total regulatory restrictiveness affecting foreign investment has reduced over time and that 'Behind the Border' restrictions have also reduced in selected producer services. However, there has been relatively less liberalization of 'Behind the Border' measures compared to 'At the Border' measures except in fixed telecom and air transport services and today, the bulk of regulatory barriers take the form of non-border measures. Correlation analysis further reveals that liberalization and in particular 'Behind the Border' liberalization has a significant positive association with increased trade and investment flows in the concerned sector and in related sectors and transactions, most likely due to productivity and efficiency gains that that result from liberalization. Hence, further trade liberalization requires the opening up of these intermediate services not only at the border but also 'Behind the Border'. For Mode 4 services trade, the study finds that IT services face a less restrictive environment than nursing services in the selected countries. It also finds that developed country markets have become more protectionist after the recent financial crisis. The quantification exercise further reveals that immigration barriers are more important for IT services while for nursing services, qualification related recognition barriers are more important.