Journal of Asian Economics 20 (2009) 611–625

Contents lists available at ScienceDirect

Journal of Asian Economics

Assessing foreign direct investment relationships between China, Japan, and the United States☆

Theresa M. Greaney [a,*], Yao Li [b]

[a] Department of Economics, University of Hawaii, 2424 Maile Way, Saunders Hall 542, Honolulu 96822, USA
[b] School of Management and Economics, University of Electronic Science and Technology of China, Number 4, Section 2, North Jian She Road Chengdu, Sichuan 610054, China

ARTICLE INFO

Article history:
Received 25 June 2009
Received in revised form 12 August 2009
Accepted 19 August 2009

JEL classification:
F21
F23

Keywords:
FDI
Asia
Regional integration

ABSTRACT

China has received enormous inflows of foreign direct investment (FDI) in recent years, including significant flows from Japan and the US. We examine these investment flows in detail to gain perspectives on their relative importance for the three countries involved. We also analyze the industrial composition of FDI flows over time. American FDI flows to China have been less concentrated in manufacturing than average for investors in China while Japan's FDI flows have been much more concentrated in manufacturing, particularly in transport, electrical and machinery industries in recent years. Using survey data from American and Japanese affiliates, we compare the employment patterns and sales destinations of American and Japanese affiliates in China. We find a much higher degree of export-orientation for Japanese affiliates than American affiliates, with the latter tending to make the vast majority of their sales in the Chinese market. Over time, however, we find a tendency towards convergence in the sales destinations of Japanese and American affiliates.

1. Introduction

China's economic reforms, begun in the late 1970s and progressing through its entry into the WTO in 2001, have allowed it to participate more fully in international commerce and to benefit from economic growth. China's rapid economic growth has been outpaced only by its even more rapid increases in international trade participation and receipt of foreign direct investment (FDI). As Fig. 1 shows, China's FDI inflows relative to GDP have grown from 0.2% in 1982 to a high of 6.3% in 1993, then back down to 4.3% in 2007. The accumulated stock of FDI from 1982 rises particularly rapidly relative to GDP from the early 1990s to early 2000s, rising from only 8% in 1992 to hit a peak of almost 30% in 2002 before dropping modestly to 25.8% in 2007. Similarly dramatic growth has occurred in exports and imports relative to GDP, with the export share rising from 12.3% to 41.9% and the import share from 10.1% to 32.3% between 1982 and 2007. The rapid growth in China's GDP, trade and FDI made it the fourth largest economy, the third largest trading country, and the largest FDI recipient in the world in 2007.[1]

☆ This paper was prepared for the conference China, Japan, and the United States: Deeper Integration, organized by Theresa Greaney and Mary Lovely and hosted by the Asian Development Bank Institute in Tokyo in May 2009. The authors gratefully acknowledge financial support from ADBI, and from co-sponsors the East-West Center, the University of Hawaii's Center for Japanese Studies, Nihon University's Department of Economics, and Brandeis University's Asia-Pacific Center. We also thank discussants Alyson Ma and Yuqing Xing, other conference participants and an anonymous referee for their helpful comments on our paper.
* Corresponding author.
E-mail address: greaney@hawaii.edu (T.M. Greaney).
[1] GDP rankings from IMF and World Bank data, trade rankings combine export and import totals based on World Trade Organization data, and FDI rankings based on OCO Global data.

1049-0078/$ – see front matter
doi:10.1016/j.asieco.2009.08.001

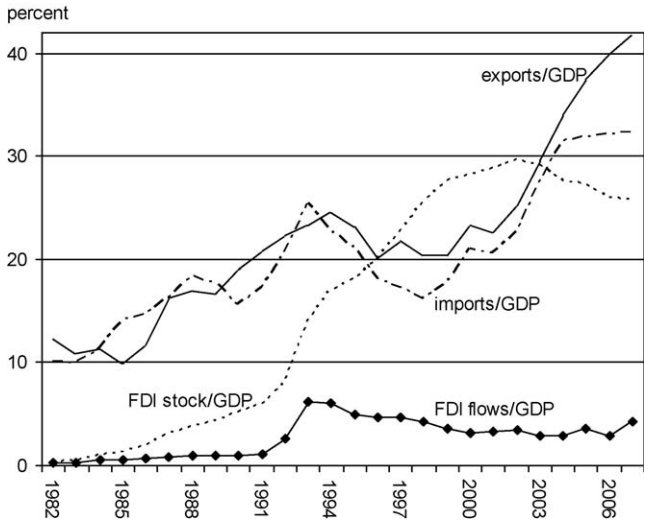

Fig. 1. China's FDI and trade relative to GDP, 1982–2007. Source: Data from The World Bank Group, Global Development Finance, GDP online.

China's rapid economic growth and international integration have captured a lot of media attention and cocktail-party theorizing as to the causal relationships within China, as well as the possible impacts on China's major trade and investment partners, such as Japan and the United States. In this paper, we jump on this bandwagon, but with a sobering examination of the available data from all three countries. We assess the FDI relationships between China, Japan, and the US by analyzing data on FDI stocks and flows across the three countries along with data on the operations of American and Japanese affiliates in China. We attempt to weigh the importance of these bilateral FDI relationships relative to other bilateral relationships for each country, and we analyze the industrial composition of the investment relationships. Although this analysis serves to remind observers that the direct investment relationship between Japan and the US is still much larger than that between either country and China, the growth in the China investments and popular interest therein prompts our further investigation into the China-hosted investments. We look for similarities and differences between Japanese and American multinationals in their approaches to investment in China by examining operating data from their affiliates. We find evidence that Japanese affiliates in China are more concentrated in manufacturing industries and are more export-oriented than their American counterparts, but the latter difference is shrinking over time.

2. Related literature

One branch of related literature has sought to explain possible relationships between international trade and FDI. The traditional Heckscher–Ohlin (H–O) theorem of trade helps in explaining China's trade pattern. With the largest population in the world and relatively low wages, China has comparative and even absolute advantage in manufacturing labor-intensive products relative to most of its trading partners. As China has increasingly integrated into the world economy over the past three decades, it has evolved into a major exporter in most categories of labor-intensive manufacturers, as predicted by the H–O theorem. Based on the same H–O framework, early theoretical analyses also predict that product trade and international capital movements act as substitutes (Mundell, 1957). This framework indicates that an increase in a country's inward FDI flows will dampen its trade growth.

More recent theories that incorporate multinational enterprise production into models of international trade develop two different hypotheses to explain the relationship between FDI and trade flows. In vertical integration models such as Helpman (1984), the primary incentive for FDI is to seek lower production costs in the host country and then to export goods produced or processed by the firm's foreign affiliates. This type of FDI inflow will increase a host country's trade, primarily through increased exports.[2] On the other hand, a host country's trade is predicted to decrease in horizontal integration models (such as Horstmann & Markusen, 1992) where FDI inflows substitute for imports. In this case, firms move the production of their exportable products to the host country to economize on firm-level economies of scale, avoid trade barriers and reduce transportation costs.

Gu et al. (2008) and Xing (2007) examine the recent relationship between trade and FDI for China. Gu et al. use disaggregated manufacturing sector data for 1995–2005 to conclude that China's FDI inflows have statistically significant and positive effects on China's total exports, but these effects differ across industries. With trade data from 1980 to 2004, Xing (2007) investigates to what extent FDI promoted intra-industry trade between China and its major trading partners,

[2] Imports of intermediate inputs also may increase in vertical integration models.