In 2009, world exports of goods and services are expected to fall by 23% from their 2008 levels. Why is this fall so large in comparison to the much smaller forecasted decline in world income of 1.1%? What policy responses would contribute to stabilization and renewed growth? Some perspective on these issues can be found by careful consideration of the bilateral relationships of China, Japan, and the United States, who together account for almost a quarter of world trade. As important links in the global supply chain, trade between these countries illustrates the ways in which production fragmentation, foreign investment, and reduction in trade costs have transformed the linkages that tie together national economies. Consideration of the experiences of this triad also brings into sharp relief the challenges for economic recovery and deeper economic integration in a world reeling from the sharpest global recession since the 1930s.

The eight papers in this special issue were part of a conference, China, Japan and the United States: Deeper Integration, organized by Theresa M. Greaney (University of Hawaii) and Mary E. Lovely (Syracuse University) to illuminate and analyze the trade and investment flows binding together these economic giants. The conference was held at the Asian Development Bank Institute (ADBI) in Tokyo, Japan on May 28–29, 2009. The authors also held a pre-conference meeting at the East-West Center (EWC) in Honolulu, Hawaii, on January 6–7, 2009, to present preliminary results and discuss research plans. The conference and pre-conference meeting were sponsored by ADBI and co-sponsored by the EWC, Brandeis University’s Asia-Pacific Center, Nihon University’s College of Economics, and the University of Hawaii’s Center for Japanese Studies.

The papers are organized into three broad topics, each section shedding light on different aspects of the relationships between these countries. The first two papers explore the character of bilateral trade and investment flows, uncovering the role of global production fragmentation in shaping them. The next set of papers delves into specific aspects of China’s role in the international division of labor, exploring spillovers to the domestic Chinese economy from American and Japanese multinationals, the geography of Chinese processing trade, and the extent to which exchange rate movements influence China’s bilateral export flows. Together, these three papers provide further evidence that production fragmentation shapes both Japanese and American bilateral flows and their consequences. The final section of the volume explores the long run implications of China’s continuing development as the U.S. adjusts to a higher domestic saving rate. These three papers investigate the effects of the 2008 financial crisis on trade and investment flows and the implication of unilateral and multilateral responses for the health of the international trading system.

All papers in this volume have been externally refereed according to Journal of Asian Economics procedures. The organizers gratefully acknowledge the conference sponsor and co-sponsors for financial support. They also thank Robert Huey, Tomohiko Inui, Masahiro Kawai, Nancy Lewis, Peter Petri, Michael Plummer, and Yasuyuki Todo for their individual efforts in support of this research endeavor. We acknowledge the essential role played by discussants at the pre-conference and the conference, as well as the anonymous peer reviewers, all of whom offered insightful and constructive criticism on a tight deadline. Their efforts have greatly improved the volume.

1. The character of trade and investment flows

The first paper in the volume, “Decomposing China-Japan-U.S. trade: vertical specialization, ownership, and organizational form,” uses detailed data from China Customs to reveal the unique nature of China’s export and import patterns. Judith M. Dean, Mary E. Lovely, and Jesse Mora argue that China’s global engagement has changed not only where goods are made but also how they are made. Drawing upon recent advances in our understanding of production fragmentation and organizational form, they investigate the extent to which China’s trade patterns conform to recent theoretical predictions. They document extensive two-way trade, deep vertical specialization, and the prominence of production fragmentation.
multinational firms in both China’s exports and its imports. While emphasizing that these features characterize China’s trade with both Japan and the United States, the authors find consistent evidence of an East Asian supply chain facilitated by geographic proximity. Despite this difference, however, they argue that deeper integration may lead to lower production costs for all three countries.

The prominence of foreign-invested enterprises uncovered by Dean, Lovely, and Mora provides a context for the investigation by Theresa M. Greaney and Yao Li, “Assessing foreign direct investment relationships between China, Japan, and the United States.” Drawing upon aggregate and survey data from country sources, Greaney and Li find that the U.S. and Japan are behind only Hong Kong and the European Union as sources of direct investment flows into China. They find that both countries make a relatively large share of their investments in China in manufacturing affiliates while making most of their bilateral investments in each other in services. Using detailed surveys of multinational activities by source country, they document the tendency for Japanese-owned affiliates in China to export larger shares of output than do their American counterparts. Japanese investment is also more heavily concentrated in manufacturing, particularly transport, electrical, and machinery industries. Indicative of a commitment to market development inside China, Greaney and Li find significant American investment flows to affiliates in wholesale trade and other service industries. While industry distribution and sales shares reveal a much stronger export orientation by Japanese affiliates in China than for American affiliates, these differences are diminishing over time and Greaney and Li suggest that trends in affiliate activities point to convergence over time.

2. Export production and the Chinese economy

The second group of papers in this volume examines in detail the implications of China’s export patterns for the domestic economy and for the responsiveness of its exports to exchange rate movements. Yasuyuki Todo, Weiying Zhang, and Li-An Zhou, in “Knowledge spillovers from FDI in China: the role of educated labor in multinational enterprises,” explore knowledge spillovers from Japanese and American multinationals to domestic Chinese-owned firms. They use unique firm-level data from the Zhongguancun Science Park, arguably the most important high-tech cluster in China. The Z-Park, as it is known, provides employment for 400,000 workers, more than half of whom hold a bachelor’s or higher degree. Todo, Zhang, and Zhou use this concentration of skilled workers to examine the role of educated labor in facilitating spillovers from multinationals to local firms. Interestingly, the authors find no significant effect of foreign investment in the same industry on domestic firms’ productivity once they account for endogeneity. Separating multinational employment by source and by worker’s educational attainment, however, they find evidence of spillovers from American multinationals to domestic firms and that these spillovers are associated exclusively with the share of workers with graduate or overseas educations. This finding may be explained by the tendency of Japanese firms to employ relatively few of these highly trained workers.

In their contribution, “Global production networks and China’s processing trade,” Chang Hong, Alyson C. Ma, and Ari Van Assche uncover novel patterns in the location of processing activities within China. Linking the source country of imported inputs for processing in each province with the destination country for those exports, they focus on the role of trade costs, as represented by geographic distance, on the arrangement of processing activities within China. They expand theoretical models of export-platform FDI to develop two predictions that can be taken to detailed Chinese trade data. The evidence suggests that China’s processing exports are negatively correlated with import and export distance. They also find that China’s processing exports to East Asia are more sensitive to export distance than are its processing exports to non-Asian countries.

Adjustment in trade flows and bilateral exchange rates are necessary consequences of unsustainably large bilateral imbalance between China and the United States. Because a large share of trade originates in foreign-invested enterprises and thus may be characterized, at least in part, as intra-firm trade, there is concern that China’s exports may be less responsive to exchange rate movements than are other bilateral trade flows. In “Revaluation of the Chinese yuan and triad trade: a gravity assessment,” Miaojie Yu sheds light on these issues by estimating the responsiveness of China’s exports to revaluation of the yuan during the 2002–2007 period. Using a gravity model and controlling for simultaneity bias between exchange rates and bilateral trade, Yu finds that revaluation of the yuan against the U.S. dollar significantly reduces China’s exports to the United States but that revaluations against the yen have no significant effects on China’s exports to Japan. This paper raises important issues for further research.

3. Responses to global imbalances and prospects for deeper integration

Large bilateral trade imbalances also motivate the paper by Chad P. Bown and Rachel McCulloch, “China, Japan and the United States: export growth, reciprocity, and the international trading system.” They begin with a review of U.S. policy responses to rapid growth in its bilateral trade deficit, comparing and contrasting the American response to Japan in the 1980s with the more recent response to China. Noting that both periods occur during episodes of rapid export growth by one partner, Bown and McCulloch describe how this growth led the U.S. to attempt to slow the growth of its imports while also acting to promote U.S. exports. They explain how these U.S. efforts influenced the evolution of the world trading system embodied in GATT and WTO agreements. Bown and McCulloch also investigate the underlying causes of bilateral imbalances, considering the role of export-promotion policies as well as broad macroeconomic factors. Their reflections on the easing of U.S.–Japan trade frictions in the 1990s are instructive in light of the current global recession.
Masahiro Kawai and Fan Zhai’s contribution, “China-Japan-United States integration amid global rebalancing: a computable general equilibrium analysis,” highlights the adjustment in East Asian production patterns that will inevitably result from a higher U.S. saving rate. Using a computable general equilibrium model that incorporates firm heterogeneity, they assess the long-term implications of global rebalancing for China, Japan, and other East Asian countries and explore the benefits of deeper integration for these economies. Their simulations indicate that East Asian manufacturing sectors such as vehicles, electronics, and machinery are major losers in the adjustment to lower U.S. import demand, while the agricultural and service sectors likely gain from expanded domestic demand. An FTA among China, Japan, and the U.S. is predicted to bring important economic benefits for China and Japan, but to have adverse welfare consequences for other East Asian economies. In contrast, a regional initiative to create an East Asia-wide FTA is found to produce large benefits for the partner economies.

Peter A. Petri and Michael G. Plummer, in “The triad in crisis: what we have learned and how it will change global cooperation,” trace the propagation of the 2008 financial crisis through the economies of China, Japan, and the United States. They describe the events and responses that identify these countries as both key protagonists in the crisis and as central agents in the recovery from it. Petri and Plummer argue that greater cooperation among the triad will be important as a determinant of other countries’ responses to global rebalancing and to ensure that the recovery that emerges leads to a sustainable growth path. The paper concludes with an overview of areas in which cooperation is especially desirable.