A fifty-year journey of China towards the world economy
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Chapter 7
Summary, Conclusions and Discussion

The basic aim of this thesis was to explain the changes in China’s bilateral trade relations. For this purpose, five empirical studies were carried out, each from a different angle. The findings of these studies are summarized below.

7.1 Conclusions from the Empirical Analyses

Evolution of China’s foreign trade and related policies

Chapter 2 has thrown more light on the evolution of foreign trade and FDI in China since the foundation of socialism in 1949. China’s economic development is characterized by two different periods. The first or pre-reform period from 1949 to 1978 is characterized by the following features: (1) China’s implementation of an import-substitution strategy in its industrialization; (2) a foreign trade system dominated by complete state monopoly; (3) the elimination of market forces; and (4) the use of political arrangements as a weapon against enemies in international political struggles. Under this trade regime, foreign trade accounted for only a small part of the Chinese economy. China was basically a closed economy with a limited role in world trade. In line with this role, China’s foreign trade was concentrated in terms of the number of trade goods and trade partners.

The second period or reform era started in 1978. In this period, China became a prime example of a developing country that integrated into the world economy,
particularly in the areas of international trade and foreign direct investment (FDI). It also shifted from import-substitution regimes to export-promotion regimes. Trade decentralization and liberalization increased the impact of the market mechanism on China’s foreign trade. During the past two decades, China became one of the most dynamic trading countries in the world. China’s foreign trade growth not only made China an important player in the world economy, but also exerts an important influence on its domestic economy. In terms of trade goods and trade partners, China’s trade has been diversified more than at any other period in China’s history. Associated with China’s growth of foreign trade, FDI has expanded extraordinarily.

Impact of political factors on bilateral trade linkages

China’s position in the international world during the past half-century provides vital information for investigating the relation between politics and trade. Although there is a substantial number of studies in this area, Chapter 3 extends the literature in at least three ways: (1) it tests the impact of five political arrangements simultaneously, which is, as far as we know, more comprehensive than any former study; (2) it uses trade intensity instead of trade flows as the measurement of trade relations, which better reflects the mutual relationship between politics and trade; and (3) it accounts for zero observations, temporal dynamics and heterogeneity within one framework, and therefore better fits with the characteristics of the data than other models used in previous studies.

Our empirical analysis in Chapter 3 showed that political arrangements played a crucial role in shaping China’s international trade. By covering a long time window with much variation and more appropriate methods for analyzing the data, and by using a trade intensity index rather than trade value to measure bilateral trade relations, this study was able to provide strong empirical evidence in favor of the hypotheses that the establishment of diplomatic relations, cooperation, high-level
visits and similarity of political systems are associated with higher intensities of trade linkages. Weaker empirical evidence was found in favor of Linder’s effect. The hypothesis that member countries of a Preferential Trading Agreements (PTA) have had lower trade intensities with China was rejected. These findings suggest that political factors were more important than economic factors over the last half century. By contrast, due to China’s trade liberalization program in the 1990s, the importance of economic factors has increased over the last decade.

Impact of cultural, economic and geographical factors on bilateral inter-industry trade linkages

Chapter 4 focused on the explanation of the intensity of China’s bilateral trade linkages in the 1990s. Six models were estimated in order to seek explanation for the shifts in the export and import intensities of trade with different trade partners over the 1993-1999 period. The estimation results revealed striking differences for 1993 vis-à-vis 1999, as well as for export vis-à-vis import trade intensities. By analyzing these differences, the following conclusions could be drawn. First, after seven years of further reform, the economic drivers of trade intensities have gained momentum. This confirms the common sense belief that China is integrating rapidly into the world market, and that the market mechanism is starting to work properly in the area of Chinese foreign trade. Political determinants of trade intensities that were still very important in 1993, were pushed to the background by a number of key economic factors in 1999. Second, by comparing the estimation results obtained for the export and import trade intensity indices, we found that economic factors appear to be more influential in the export than in the import domain. The reason for this difference is that, while China has largely liberalized its trade regime and has taken a number of important steps to reduce protection, import countries still face tariff and non-tariff barriers, as well as complicated formalities associated with import activities. Third, the estimation results over the 1993-1999 period suggest that Linder’s effect
Chapter 7 Summary, conclusions and discussion

does exist in a transitional country like China, especially in the export domain. This finding supports the idea that a developing and transitional country, such as China, needs to import technology-intensive products from developed countries. In the import domain, Linder’s effect appeared to be very weak. Fourth, in Chapter 4, we found empirical evidence in favor of the argument that the greater the geographical distance between China and its trade partner, the lower will be their mutual trade intensity indices. This is in line with standard trade theory logic. Finally, in this chapter, we found that FDI and ethnic ties positively influenced the bilateral trade.

In Chapter 3, it was found that Linder’s effect did not exist in the export domain and only weakly in the import domain. This difference with respect to export and this similarity with respect to import require further explanation. In Chapter 3, we examined data from 1950 to 2002. In the first three decades of this period, China was a planned economy. The purpose of import during this period was to meet the needs of domestic industrialization. In other words, China’s import plan was largely based on its planned economic situation, and economic factors were at least to some extent responsible for China’s import behavior. This situation did not really change when China started to reform its economy, and market forces became responsible for China’s import behavior. Consequently, the impact of Linder’s effect on China’s import intensity indices remained more or less the same. In the case of export, though, the situation in both periods was quite different. In the first three decades, the objective of China’s export behavior was to finance its imports. Consequently, politics exerted more influence on export than on import, pushing Linder’s effect to the background. Only after China thoroughly integrated into the world economy, and market forces became responsible for China’s export behavior, did Linder’s effect start to work. In sum, although Linder’s effect became significant in the 1990s,
this period was too short to find any empirical evidence in favor of Linder’s effect with respect to export over the whole sample period.

Impact of cultural, economic and geographical factors on bilateral intra-industry trade structures

In Chapter 5, we investigated the nature of intra-industry trade between China and 50 trade partners during the 1992-2001 period, when China has accelerated the implementation of policies to liberalize international trade and investment. In order to explore the determinants of total intra-industry trade (TIIT), we disentangled this measure into vertical intra-industry trade (VIIT) vis-à-vis horizontal intra-industry trade (HIIT). This distinction led to a significant improvement of the estimation results. The following conclusions could be drawn from this analysis. First, TIIT has increased significantly during this period, which implies that China’s trade structure has been upgraded. By breaking down TIIT into VIIT and HIIT, we found that VIIT has been the dominant type in China’s intra-industry trade, increasing faster than HIIT did. Second, while the variables geographical distance, economic size, trade development stage and FDI are common determinants that affect both VIIT and HIIT in the same direction, the variable reflecting similarity does not. The results of our two sets of estimations showed that China’s HIIT is more likely to emerge with countries that are similar than those that are different. Conversely, China’s VIIT happens more with different rather than with similar countries. The considerable increase of VIIT in Chinese bilateral trade suggests that China’s areas of specialization based on comparative advantages have expanded from inter-industry to intra-industry trade domains. This conclusion is in line with the progression of China in its latest trade development stage.

Third, this study corroborates that most of intra-industry trade determinants discussed in the literature have done their job in the case of China in 1992-2001.
These determinants are cultural, economic and geographical factors. This overall finding again confirms that the market mechanism has started to work properly in the area of Chinese foreign trade in the post-1992 period. In addition to this, China’s recent trade history revealed two specific features that can be attributed to the particulars of the process of transition and liberalization. One is that trade and FDI policies have influenced the nature and cause of Chinese bilateral intra-industry trade. Specifically, the policies on processing trade and export-oriented FDI have significantly encouraged related FDI and VIIT. The other is that, due to historical and institutional reasons, Hong Kong has played an important role in China’s trade development.

The interaction between trade and FDI

In Chapter 6, we investigated the causality and direction of linkages between FDI, exports and imports of China’s economy during the 1980 – 2003 period by applying cointegration and Granger-causality methods. In the long run, FDI appeared to be positively related to exports and imports, while exports appeared to be positively related to imports. These results imply that multinational enterprises’ investments in China do not substitute for China’s exports and imports. In the short run, the Granger-causality method revealed bi-directional causal links between FDI and exports, and one-way causal links from imports to FDI and from imports to exports. These results confirm the significant impact of the liberalization policy on China’s exports and FDI inflows. The lack of significance of causation from FDI to import also explains our findings in Chapters 4 that the impact of FDI on imports is less significant than the one on exports.

The results of this causality analysis point to a virtuous process of the development of China’s outward-oriented economy: more imports lead to more FDI, more FDI leads to more exports, and more exports lead to more FDI. This virtuous process
reflects China’s open-door policy. The trade liberalization program that started in 1978 initially facilitated China’s imports, and hence, directly and indirectly, FDI and exports. Currently, China is further opening up its markets to the outside world in order to fulfill its promise to the WTO. The implication of this policy is that the described virtuous circle is likely to continue, or even to accelerate, which will eventually underpin a high economic growth rate in China for many years to come. In the process, the role of MNEs through FDI is crucial.

7.2 General Conclusion

This thesis revealed the great changes of China’s trade relations during the last half century. During the pre-reform period, institutional and political factors were the most important determinants of China’s bilateral trade linkages. After China started to open the door to the world market in 1978, the market mechanism began to exert its function in China’s trade linkages. Consequently, especially economic factors became more important. Particularly, MNCs play very important roles in China’s foreign trade relations. Figure 7.1 gives an overview of all the results (cf. Figure 1.1).

The contribution of this thesis to the international trade literature in general and the study of China in particular is, at least, twofold. For one, it is the first study that systematically investigated the impact of four groups of factors: cultural, economic, geographical and political factors. This is, as far as we know, more comprehensive than any former study. Moreover, it has been shown that trade theories commonly applied to trade data of developed economies also apply to a large transition economy such as China.
7.3 Limitations and Suggestions for Further Research

Although this thesis has deepened our understanding of China’s bilateral trade relations in a period characterized by globalization and transition, it is also due to a number of limitations that point the way to future studies.

First, this thesis has studied bilateral trade linkages and trade structures at the aggregate country level. Future research might focus on lower levels of aggregation. Especially a breakdown of trade flows by industry offers additional research opportunities. The reason is that the response to both positive and negative factors...
Chapter 6 The Relationships between FDI and Trade: A Cointegration Approach

Table 6.1: Augmented Dickey-Fuller unit root test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level</th>
<th>First difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With constant and trend</td>
<td>With constant only</td>
</tr>
<tr>
<td>EX</td>
<td>-2.723(2)</td>
<td>0.912(4)</td>
</tr>
<tr>
<td>IM</td>
<td>-3.120(3)</td>
<td>1.081(7)</td>
</tr>
<tr>
<td>FDI</td>
<td>-1.701(3)</td>
<td>-1.793(3)</td>
</tr>
</tbody>
</table>

Notes:
1. EX, IM and FDI denote the logs of exports, imports and FDI, respectively.
2. ***, **, and * are significant at the 5% and 10%-level, respectively.
3. Figures in parentheses are the number of lags that were selected by the Akaike Information Criterion (AIC).

Table 6.2: Zivot-Andrews unit root test: minimum t-statistic

<table>
<thead>
<tr>
<th></th>
<th>Level</th>
<th>First difference</th>
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<td></td>
<td>With constant and trend</td>
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Notes:
1. EX, IM and FDI denote the logs of exports, imports and FDI, respectively.
2. ***, **, and * are significant at the 5% and 10%-levels, respectively.
3. Figures in parentheses are break points.

6.4.2 Cointegration test and long-run relationships

The purpose of the cointegration test is to determine whether our three non-stationary time series are cointegrated – that is, to detect whether there are long-run equilibrium relationships among the three variables. As mentioned above, we include the step dummy $D_{92}$ as an exogenous variable. We test for cointegration using the
of international trade may vary substantially across industries. Furthermore, the elasticities of supply and of demand might differ widely across industries. A study at the level of single industries may offer not only additional information about China’s trade relations, but also may throw more light on the kind of policies needed for industry development.

Second, given the important role of FDI found at the macro level, future studies should also pay attention to FDI at the industry level or even at the firm level. The combination of micro-level studies in international business and macro-level studies in international economics may contribute to the development of an international business and economics literature (Brakman et al., 2005). The motivation and entry mode choice of MNEs not only affect their intra-firm trade, but also the general trade pattern of a state. Since the motivation and entry mode choice of MNEs tend to vary considerably across industries, industry-level or firm-level analysis within a macro-economic framework may help to better understand international trade relations.

Third, given the important impact of political factors on China’s bilateral trade relations and the limitations of our political data variables used in this thesis, further research in this area is welcome. Another potential research issue, next to replicating our study on the relationship between trade and politics in different settings, is to extend the analysis with the reversal relationship between politics and trade. Furthermore, it is interesting to explore why political arrangements are so influential in China.