

**Balance of Power and Economic Interdependence in the Post-
Cold War Northeast Asian International Relations:
An Empirical Study**

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A preliminary draft prepared to present at the APSA 2002 Annual Meeting,
August 28-September 1, 2002, Boston, USA.

1. Introduction

With regard to the post-Cold War Northeast Asian international relations, we have two somewhat contradictory explanations and predictions. One is a realist pessimism and the other is a liberalist optimism. Realist pessimism attends to *structural dynamics* emanating from the collapse of bipolarity, which is assumed to be highly uncertain and unstable by nature. Thus Northeast Asian countries are engaged in a renewed power balancing after the end of the Cold War, which would bring uncertainty and instability in the region. Theoretically, realist pessimism relies on a systemic change of the post-Cold War Northeast Asia.

On the other hand, liberalist optimism stresses the peace effect of increasing economic interdependence of the region. First of all, it is pointed out that economic interdependence has steadily increased within the region in terms of either trade volume or investment flows. Economic interdependence *per se* may not bring peace directly. But it has been widely argued that rising economic interdependence would engage countries more deeply in a network of world economy and consequently increase the need to cooperate among them. Theoretically, liberalist optimism assumes that *political processes* to manage economic interdependence would keep down structural constraint of a systemic change.

Which perspective is more relevant in explaining current international relations in Northeast Asia and predicting its future? Can we find balance of power politics really working in Northeast Asia? Is economic interdependence really increasing within the region? What relationship can we find between balance of power politics and economic interdependence in the region? What theoretical and practical implications can we derive out of the findings? This study tries to answer these questions. To do this, it collects and analyzes empirical data for China, Japan, Russia, and North and South Korea, for the period of 1985 through 2000.

2. Balance of Power Politics in Northeast Asia

As bipolar confrontation ends, a renewed power balancing, realists argue, is developing in Northeast Asia, the process of which is highly uncertain and unstable.¹ While the

¹ For this realist pessimism, see Friedberg, Aaron. Winter 1993/94. "Ripe for Rivalry: Prospects for Peace in a Multipolar Asia." *International Security* 18:3; Pollack, Jonathan.

United States remains as the lone superpower, China and Japan especially would engage in a series of balance of power (BOP) politics. Indeed, China, since Deng Xiaoping, has strongly pursued military modernization financed by its unprecedented economic growth. Japan also, under the US pressure to take over more military roles within the alliance system and domestic demands toward a 'normal state', may have steadily increased its military capabilities. Can we confirm a BOP politics between two countries with empirical data?

Figure 1 below shows defense expenditures(DE) and their trends of Northeast Asian countries from 1985 through 2000. We can find several interesting facts and trends.

- (1) During 1985 through 1989, China's DE had remained at 5.5 to 6.5 billion US\$, while Japan's DE was increasing rapidly.
- (2) However, China's DE began to rise rapidly after 1989, and China's and Japan's DE were increasing steadily and competitively in a parallel through 1995 with Japan's above China's DE.
- (3) After 1995, Japan's DE was decreasing until 1998, when both countries' DE were encountering, while China's was still increasing in a slowed path.
- (4) After 1998, Japan's DE was again turning upward more rapidly than China's.
- (5) Russia's DE was sharply dropping until 1998, but remaining above Japan's and China's. Since then, it rises slightly at the level of 50 to 60 billion US\$.
- (6) South Korea's DE had gradually increased by 1997 at average growth rate of 9.3%. However, in 1998, the rate dropped sharply to -56.6%. The sharp drop seems to have been due to the East Asian economic crisis and regime change. After 1998, the DE is recovering the average rate of growth.
- (7) North Korea had maintained its DE at the level of around 5.5 billion US\$ by 1996. Since 1997, however, North Korea's DE has dropped and remained at the level of around just above 2 billion US\$. The drop in DE seems mostly due to domestic economic deterioration.
- (8) China had increased its DE most rapidly during the years of 1989-1992 with annual growth rate of 40%. This rapid increase was a consequence of China's reaction to both international and domestic developments. At the international level, China, on the one hand, was reacting to power rebalancing resulting from

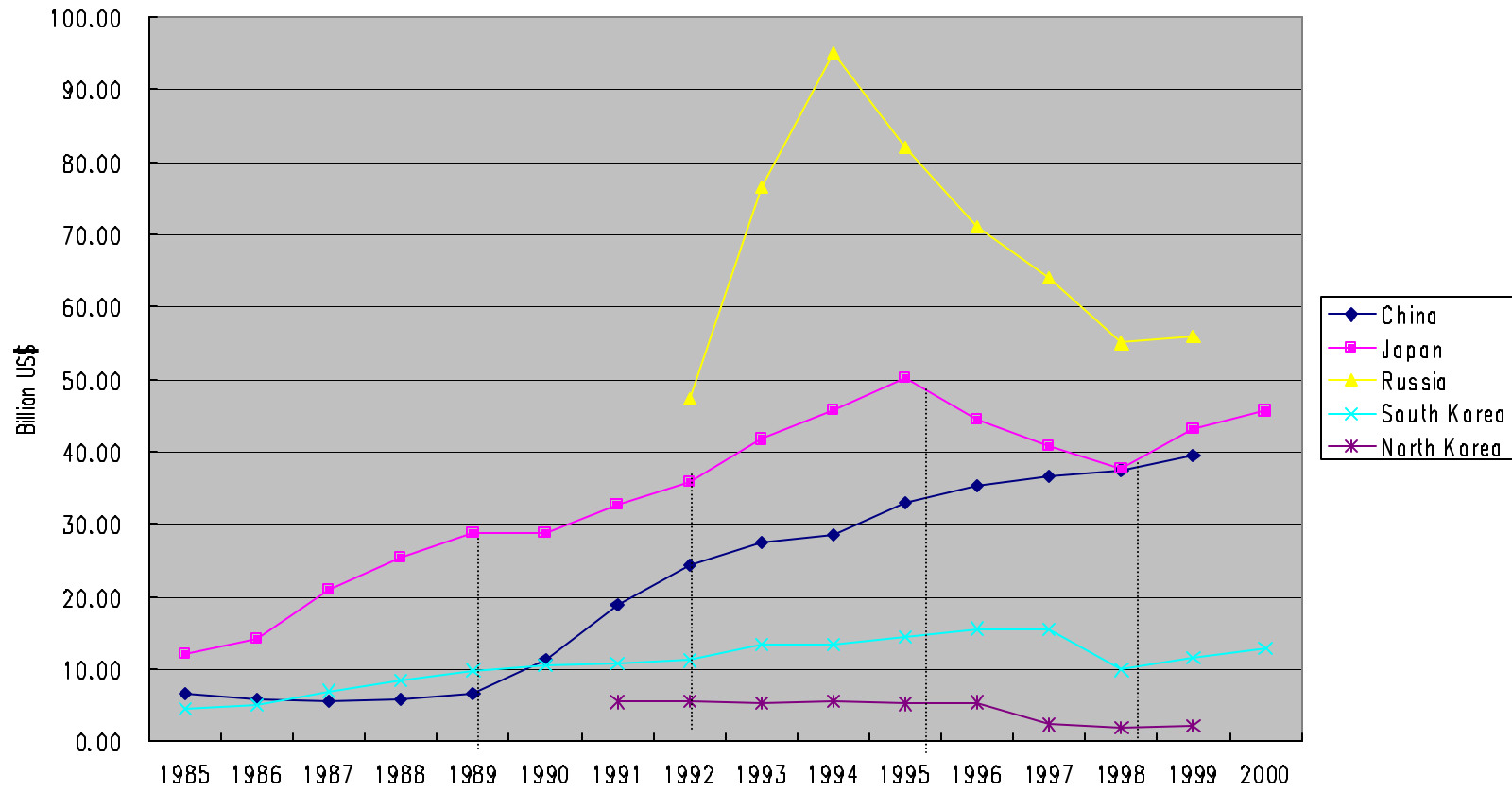
November 1994. "Sources of Instability and conflict in Northeast Asia." *Arms Control Today*; Buzan, Barry, Gerald Segal. Summer 1994. "Rethinking East Asian Security" *Survival* 36:2, 3-21.

the end of the Cold War by accelerating its defense modernization program. On the other hand, it is known that Chinese political and military leaders had been shocked at the high-tech military technologies and capabilities of the US and its allies demonstrated during the Gulf War of 1990-1991. At the domestic level, Chinese leadership suppressed the Tiananmen student movement of 1989 with military forces. Chinese political and military leaders shared a tendency to see the Tiananmen movement instigated by the strategy of a 'peaceful evolution' by western countries. As a result, anti-western nationalism surfaced, and military influence was strengthened. After the Tiananmen incident and the Gulf War, Chinese leaders were more pressed to modernize China's military and defense capabilities, while strongly resisting any attempt of a 'peaceful evolution' of China. This assertive and conservative phase continued until Deng's Southern Tour in 1992. Consequently, during this period, China's DE had dramatically risen, and its trade volume sharply dropped.²

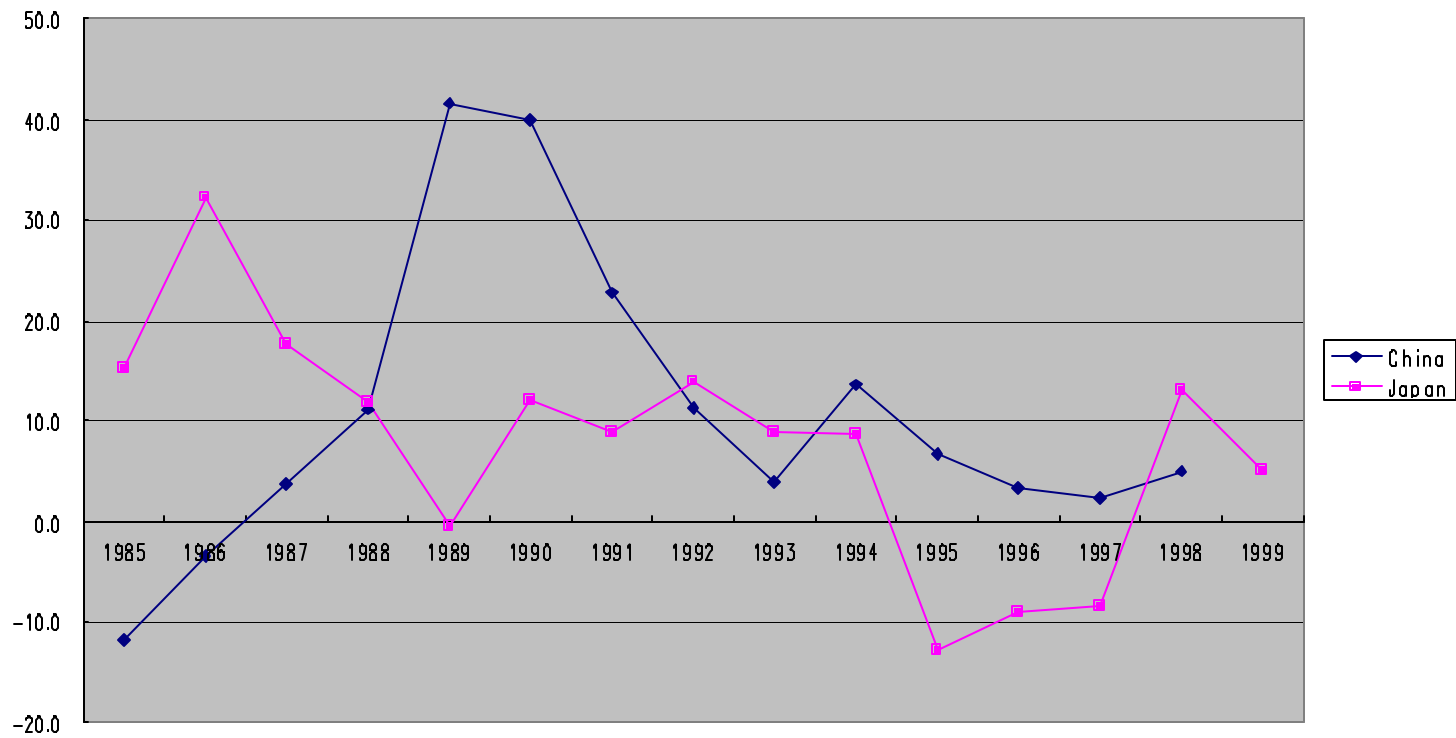
In overall, the most conspicuous aspect in the trends of DE of Northeast Asian countries is an operation of a BOP politics, especially between China and Japan since 1990. Even for North and South Korea, there are paralleling ups and downs in their DE. If Russia completes its domestic reforms and resumes a normal level of economic growth after 1998, the BOP politics may extend into China, Japan, and Russia.

² In 1990, China's trade volume remained at annual growth rate of 5.8%, which marked one of three bottoms in its annual percentage changes of trade volumes during 1985-2000. See Figure 4 Trade APC below.

<Figure 1> Defense Expenditures, 1985-2000



<Figure 2> DE apc compared



<Figure 2> above shows the annual percentage changes (APC) of DE of China and Japan during 1985-2000.

- (1) First of all, during the period of 1986-1990, we find a reversing trend in the APC of DE for China and Japan. While Japan's growth rate of DE was dropping during this period though with positive rates, China's growth rate, after entering positive side in 1987, soared up rapidly remarking over 40% growth rates in 1989 and 1990. These remarkable growth rates of China during this period, as discussed before, are due to the Chinese defense modernization program accelerated after the Tiananmen and the Gulf War.
- (2) During the period of 1988-1992, China's growth rate of DE is far above Japan's. Here we see distinctive reactions to the ending of the Cold War. China had increased its DE rapidly and accelerated the defense modernization, while Japan had maintained ordinary rates of growth in DE. Whereas China was reacting swiftly to the ending of the Cold War, Japan delayed any significant reactions under the alliance system with the US.
- (3) In the post-Cold War Northeast Asia after 1992, China's growth rates of DE are stabilized at around and below 10%, and Japan also returns to a similar level of growth rates after three years' of negative rates in 1995-1997 mostly due to domestic economic recession. In overall, after 1992, growth rates of DE of both countries are following similar trajectories crossing and competing each other. In terms of growth rate of DE too, we may confirm a BOP politics working between two countries.

3. Economic Interdependence in Northeast Asia

According to liberalists, increasing interstate economic interdependence (EI) would bring forth increasing needs to manage it and, hence, increasing needs to cooperate among related countries. It would proliferate multiple channels of communication to manage increasing interdependence. In managing economic interdependence, military power is not effective. Further, in international relations (IR) of increasing interdependence, there is no hierarchy in issue areas.³ Thus the economy takes on its own weight and significance. Consequently, in IR of increasing economic interdependence, countries are more likely to cooperate and less likely to resort to

³ Keohane, Robert, and Joseph Nye, Jr. 1977. *Power and Interdependence: World Politics in Transition*. Boston: Little, Brown.

military power.

Liberalists, therefore, attend to economic dynamism and remarkable growth rates of Northeast Asian countries. Because such an economic dynamism and remarkable growth have been possible through active participation in and exploitation of the world market economy, EI of Northeast Asian countries, it is believed, has been steadily increased. Consequently, even though Northeast Asian countries are undergoing structural dynamics emanating from the end of the Cold War, the potential instability and conflicts out of such a systemic change is believed to be minimized via international political process of managing increasing EI and consequential international cooperation.⁴ Most of all, can we confirm increasing EI among Northeast Asian countries?

Figure 3 below shows annual trade volumes (sum of exports and imports) and their trends of four Northeast Asian countries for 1985-2000. We can figure out several characteristics and trends.

- (1) Trade volumes of Japan, China, South Korea, and Russia had steadily increased by 1995. While Japan had followed a far higher trajectory, other countries too had shown increasing and similar trajectories in general.
- (2) In particular, China is the only one that had shown a most consistent increase in its trade volume through the whole period with an exceptional but slight decrease in 1998 (-0.3% growth rate) due to the East Asian economic crisis.
- (3) China and South Korea had followed very similar trajectories by 1995. But China surpassed South Korea in 1992 and the gap began to widen after 1996 at China's lead.
- (4) During the period of 1995-1998, we can see that Northeast Asia had experienced an economic stagnation region-widely. During this period, trade volumes of Northeast Asian countries show a slowed (China), or a stagnating (South Korea and Russia), or even a decreasing (Japan) rate of growth. Intra-regionally, this economic stagnation may have resulted from Japan's economic recession. Internationally, it may have been due to Northeast Asian countries' unpreparedness to the intensifying liberal globalization. After the World Trade Organization (WTO) had been launched in 1995, trade liberalization had been

⁴ Typically see Richardson, James. Winter 1994/95. "Asia-Pacific: The Case for Geopolitical Optimism." *The National Interest*.

intensified and expanded to other until-then protected sectors such as finance and agriculture. Since then, Northeast Asian countries should have been devoted to reforming and transforming state-led developmental and protectionist economies into more market-oriented liberalist ones. The East Asian currency and financial crisis in 1997-1998 was due more directly to the lack of governance and consequential instability of uncoordinated world market economy as well as to the se vulnerable outdated developmental economies.

(5) After 1998, however, trade volumes of Northeast Asian countries but Russia are again turning upward.

In overall, trade volumes of Northeast Asian countries had increased during the period of 1985-2000. If we measure the extent of EI with trade volume, we would say that EI of Northeast Asian countries must have also increased.⁵ And we would also predict that it would increase continuously considering the general trend of increase in trade volumes of Northeast Asian countries.

⁵ Simple trade volume alone may not be an accurate indicator of EI. To measure accurate EI of Northeast Asian countries, we have to calculate the proportion of intra-regional trade volume to total trade volume for each country. Nonetheless, as total trade volume increases, the proportion of intra-regional volume may have also increased. Thus, we would safely substitute trade volume for EI.

Figure 3 Trade Volume, 1985-2000

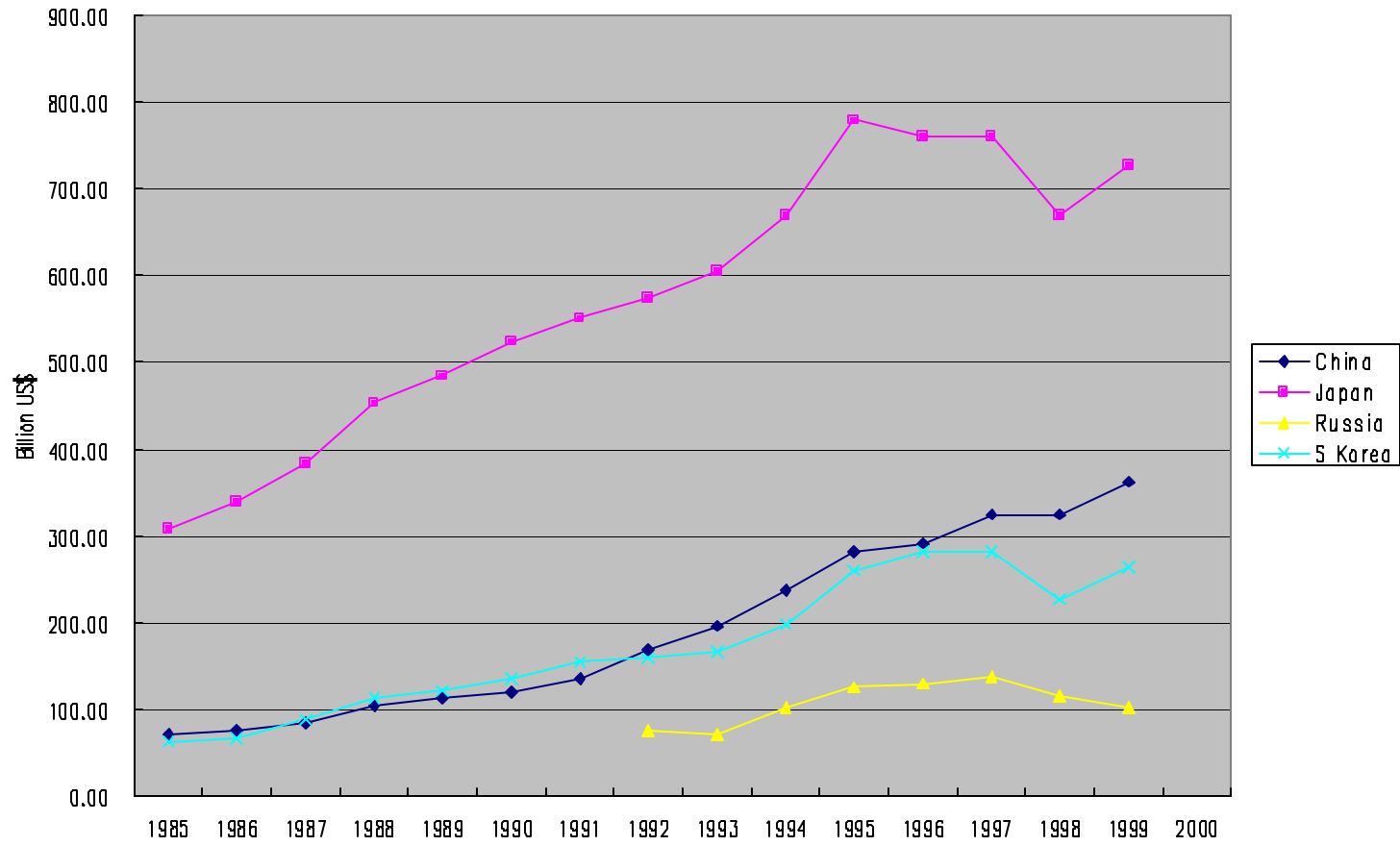
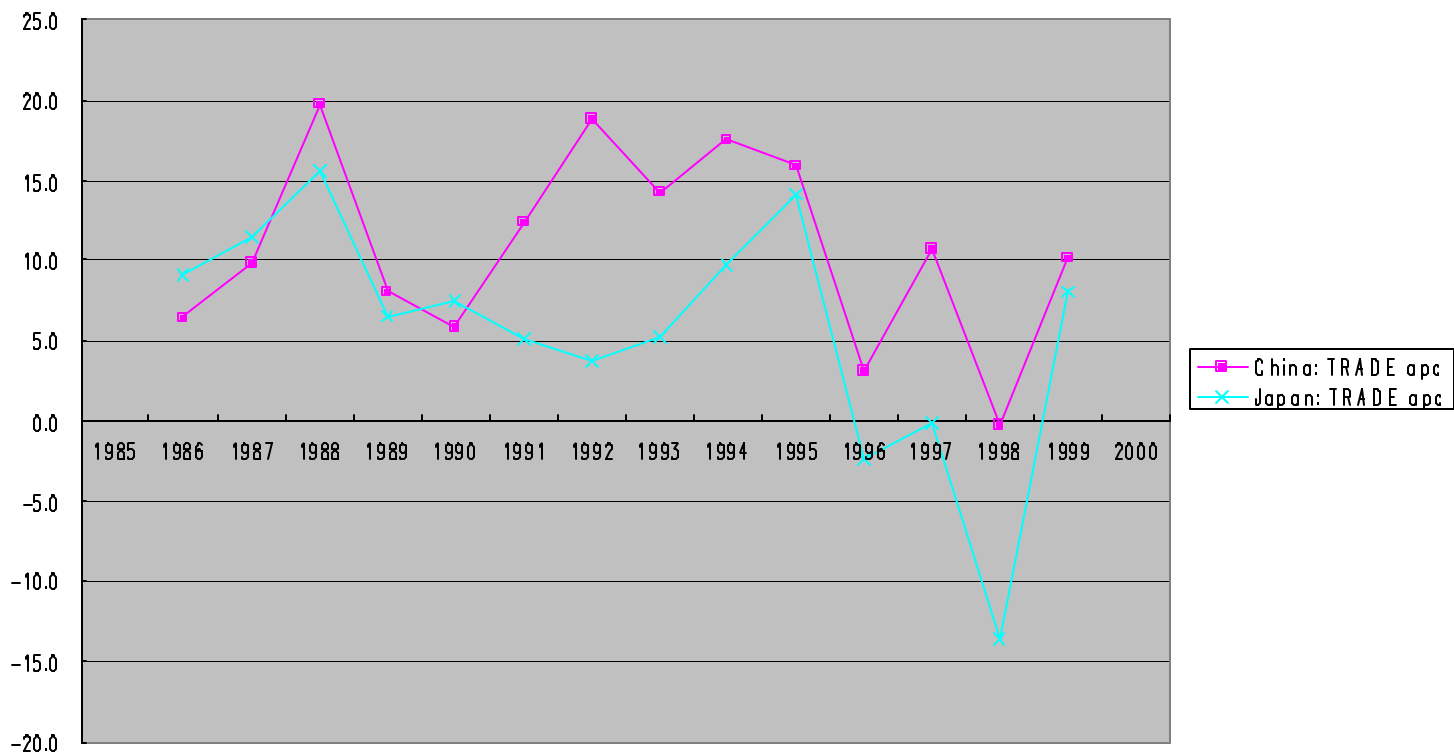


Figure 4 TRADE apc compared



Now let us focus on China and Japan in terms of APC of trade volume during the period of 1985-2000. Figure 4 above shows APC of trade volume of both countries comparatively.

- (1) Since 1987, China's growth rate of trade volume has steadily been above Japan's with the only exception in 1990. It implies that China has more rapidly expanded its trade volume and accelerated its participation in world economy.
- (2) China's trade APC shows three bottom points in its trajectory: 1990, 1996, and 1998. In the case of 1990, China's economic relations with the US and Japan was suspended after the military suppression of the Tiananmen student movement. In the case of 1996, China conflicted with the US over the Taiwan issue, as Taiwan attempted to achieve independence and the US tended to acquiesce it in an ambiguous manner. And in the case of 1998, China also could not be free from the effects of the East Asian economic crisis. One important fact here is that regional security or geopolitical conflicts could freeze economic interactions within the region. This is not just true of China, but applies to other regional countries also. We can see in Figure 4 above that Japan's bottom points almost match with China's.
- (3) In overall, we find that trade APCs of both countries are following a very similar trajectory of trends. It is because major turning points in regional economic relations are shaped by either domestic/ international conflicts (in 1990), or geopolitical security conflicts (in 1996), or instability of world economy (in 1998).

4. Balance of Power and Economic Interdependence

Figure 5 and Figure 6 below show the APCs of DE and Trade volume for China and Japan respectively. What findings can we derive out of them?

- (1) First of all, the level of DE tends to be constrained by economic capabilities. For both China and Japan, the growth rate of DE tends to follow that of Trade volume in overall. Therefore, we would say that level of defense expenditures is most directly a function of economic capabilities.
- (2) Nonetheless, we find some exceptional periods for both countries. For China, the growth rate of DE during the years of 1989-1992 is far above that of Trade volume (See Figure 5). For Japan, the growth rate of DE during the years of

1991-1993 is also quite above that of Trade volume (See Figure 6). In other words, during the periods for both countries, the growth rate of DE far exceeds that of Trade volume. Several interpretations may be plausible. First of all, both China and Japan were reacting to a systemic change, the ending of the Cold War, by strengthening their own military capabilities. Second, the Gulf War may have caused to increase DE for both countries: China, shocked at the US and its allies' high-tech military capabilities demonstrated during the Gulf War, accelerated defense modernization; and Japan was indirectly involved in American side during the War, especially in developing high-tech electronic military weapons. Finally, considering the timing of increases in DE of each country, Japan may have reacted to China's unusual high increase rate of DE, which implies a BOP politics between two countries.

- (3) But what we can be mostly sure of is the finding that international or regional geopolitical conflicts freeze economic relations. As discussed already, of three bottom points in China's TRADEapc in Figure 5, two of 1990 and 1996 are the consequences of international conflicts, i.e., the Tiananmen in 1989 and the Taiwan crisis in 1995-1996. For Japan too, the year of 1996 marks a bottom point in its TRADEapc.

Figure 5 CHINA: DE_{opc} & TRADE_{opc}

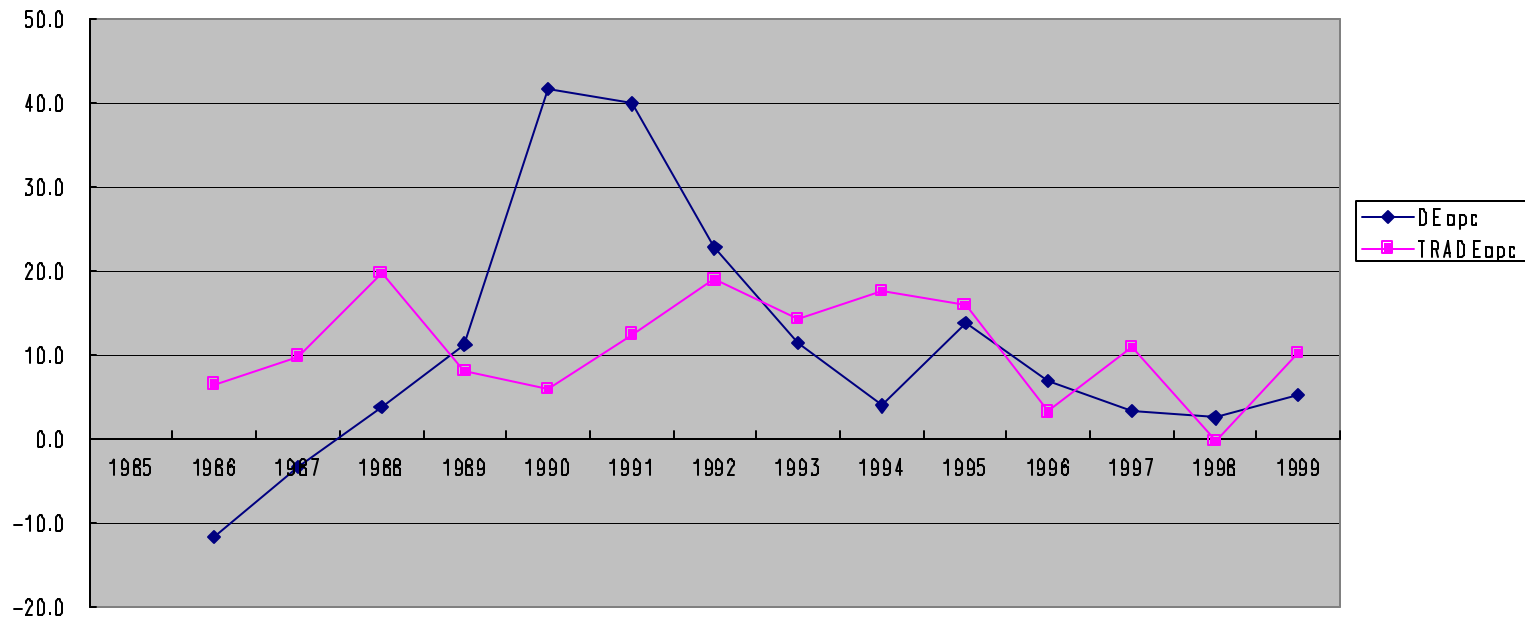
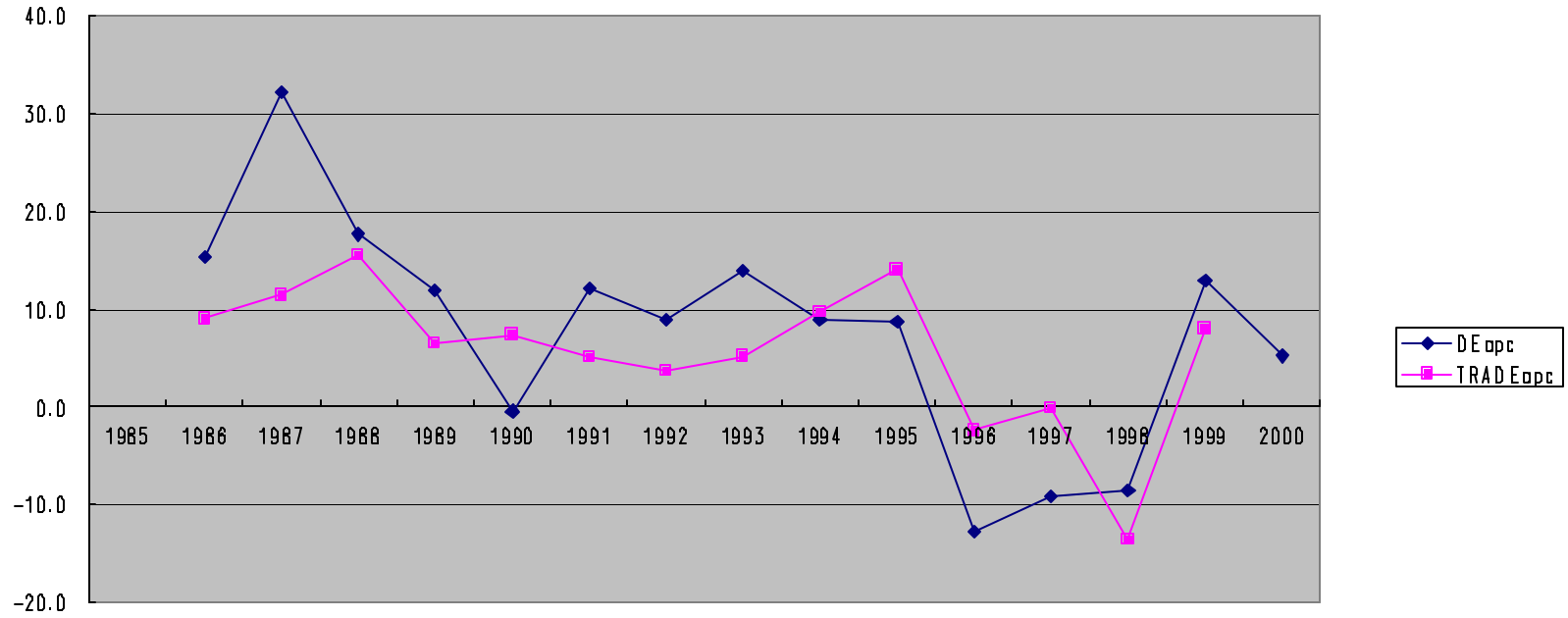


Figure 6 JAPAN: DEoprc & TRADEoprc



5. Conclusion: Findings and Limits

Summary of Key Findings

- (1) In the post-Cold War Northeast Asian IR, a BOP politics is working, especially between China and Japan, as evidenced in somewhat paralleling and competitive increases in defense expenditures.
- (2) In the post-Cold War Northeast Asian IR, the EI as measured simply by trade volume has increased though with some fluctuations.
- (3) Defense expenditures tend to be constrained by economic capabilities most directly, as evidenced in overall similar trajectories of the growth rates of DE and Trade volume.
- (4) Nonetheless, regardless of economic capabilities, a BOP politics tended to be instigated most certainly by a systemic change, the ending of the Cold War, as revealed by unusual high growth rate of DE exceeding that of Trade volume during the period of 1989-1993 for both China and Japan.
- (5) Most clearly, international or regional political conflicts freeze economic interactions, as shown in rapid drops in trajectories of TRADEapc.

Thus, we could confirm some propositions of realism, but not of pessimism. Contrary to realist pessimism, the BOP politics by itself does not cause instability and conflict. Rather, it is instigated by international systemic change, or international or regional political conflicts, not *vice versa*. And it tends to be constrained by economic capabilities. Therefore, a BOP politics is more likely to be normal state reactions to changing power relations in pursuit of national security and interests under the constraint of economic capabilities.

Through the analyses of empirical data, it was not easy to confirm and generalize the propositions of liberalist optimism. To do this, we may need to devise a more accurate indicator of economic interdependence, not simple trade volume, and to correlate with frequencies of international conflicts. Nonetheless, with analysis of concrete cases, we may confirm some elements of liberalist optimism. For China, for instance, resuming economic reform and opening in 1992 after the suspension since the Tiananmen may have caused sharp reductions in DE in 1993 and 1994 (See Figure 5). Further, though with the Taiwan crisis in 1995-1996, China kept the DE low in 1997 in expecting the restoration of Hong Kong, which is China's window to the world economy as well as a

symbol of historical humiliation (See Figure 5).

Appendix

Dataset analyzed at this study follows below. All the Figures are based on this dataset. For defense expenditures, data were collected from IISS, *The Military Balance* for each relevant year, and rearranged depending on needs. Data on trade volume were collected from IMF, *Direction of Trade Statistics Yearbook* and IMF, *World Economic Outlook* for each year and rearranged by needs. Units of DE and Trade volume are in Billion US\$; APC is in %.

CHINA

| YEAR | DE | DEapc | TRADE | TRADEapc |
|------|-------|----------|--------|----------|
| 1985 | 6.52 | | 69.81 | |
| 1986 | 5.83 | -11.8 | 74.61 | 6.4 |
| 1987 | 5.64 | -3.4 | 82.69 | 9.8 |
| 1988 | 5.86 | 3.8 | 103.02 | 19.7 |
| 1989 | 6.60 | 11.2 | 112.05 | 8.1 |
| 1990 | 11.30 | 41.6 | 118.95 | 5.8 |
| 1991 | 18.79 | 39.9 | 135.80 | 12.4 |
| 1992 | 24.30 | 22.7 | 167.34 | 18.8 |
| 1993 | 27.40 | 11.3 | 195.16 | 14.3 |
| 1994 | 28.50 | 3.9 | 236.45 | 17.5 |
| 1995 | 33.00 | 13.6 | 280.96 | 15.8 |
| 1996 | 35.40 | 6.8 | 290.04 | 3.1 |
| 1997 | 36.60 | 3.3 | 325.08 | 10.8 |
| 1998 | 37.50 | 2.4 | 324.13 | -0.3 |
| 1999 | 39.50 | 5.1 | 360.65 | 10.1 |
| 2000 | | | | |
| | | AVR 10.7 | | AVR 10.9 |

* Def Exp for 1989 is not available; here Def Bdgt is used.

JAPAN

| YEAR | DE | DE apc | TRADE | TRADEapc |
|------|-------|--------|--------|----------|
| 1985 | 12.02 | | 307.71 | |
| 1986 | 14.19 | 15.3 | 338.38 | 9.1 |
| 1987 | 20.93 | 32.2 | 382.24 | 11.5 |

| | | | | |
|------|-------|-------|--------|-------|
| 1988 | 25.42 | 17.7 | 452.44 | 15.5 |
| 1989 | 28.85 | 11.9 | 484.23 | 6.6 |
| 1990 | 28.73 | -0.4 | 522.99 | 7.4 |
| 1991 | 32.68 | 12.1 | 551.46 | 5.2 |
| 1992 | 35.90 | 9.0 | 572.67 | 3.7 |
| 1993 | 41.70 | 13.9 | 604.19 | 5.2 |
| 1994 | 45.80 | 9.0 | 669.32 | 9.7 |
| 1995 | 50.20 | 8.8 | 778.94 | 14.1 |
| 1996 | 44.50 | -12.8 | 760.75 | -2.4 |
| 1997 | 40.80 | -9.1 | 759.71 | -0.1 |
| 1998 | 37.60 | -8.5 | 669.20 | -13.5 |
| 1999 | 43.20 | 13.0 | 727.94 | 8.1 |
| 2000 | 45.60 | 5.3 | | |

AVR7.8

AVR5.7

* For Japan, Defense Budget is used as DE, because of data availability.

Only for 1985, Defense Expenditure is used,
because Defense Budget data is not available.

RUSSIA

| YEAR | DE | TRADE |
|------|-------|--------|
| 1985 | | |
| 1986 | | |
| 1987 | | |
| 1988 | | |
| 1989 | | |
| 1990 | | |
| 1991 | | |
| 1992 | 47.22 | 74.91 |
| 1993 | 76.60 | 70.80 |
| 1994 | 95.00 | 101.68 |
| 1995 | 82.00 | 123.99 |
| 1996 | 71.00 | 128.48 |
| 1997 | 64.00 | 137.48 |
| 1998 | 55.00 | 114.33 |
| 1999 | 56.00 | 102.74 |
| 2000 | | |

* Def Exp for 1993 is not available; Here Def Bdgt is used.

SOUTH KOREA

| YEAR | DE | DEapc | TRADE | TRADEapc |
|------|-------|----------|--------|----------|
| 1985 | 4.55 | | 61.35 | |
| 1986 | 5.11 | 10.96 | 66.53 | 7.78 |
| 1987 | 6.97 | 26.69 | 88.33 | 24.68 |
| 1988 | 8.51 | 18.10 | 112.50 | 21.48 |
| 1989 | 9.89 | 13.92 | 120.71 | 6.80 |
| 1990 | 10.62 | 6.91 | 134.89 | 10.51 |
| 1991 | 10.77 | 1.39 | 153.38 | 12.06 |
| 1992 | 11.19 | 3.75 | 158.42 | 3.18 |
| 1993 | 13.40 | 16.49 | 165.54 | 4.30 |
| 1994 | 13.30 | -0.75 | 198.39 | 16.56 |
| 1995 | 14.36 | 7.38 | 260.52 | 23.85 |
| 1996 | 15.60 | 7.95 | 280.90 | 7.25 |
| 1997 | 15.50 | -0.65 | 280.59 | -0.11 |
| 1998 | 9.90 | -56.57 | 225.54 | -24.41 |
| 1999 | 11.60 | 14.66 | 263.59 | 14.44 |
| 2000 | 12.80 | | | |
| | | AVR 5.02 | | AVR 9.17 |

* Defense Budget is used for DE.

NORTH KOREA

| YEAR | DE | TRADE |
|------|------|-------|
| 1985 | | 1.45 |
| 1986 | | 1.48 |
| 1987 | | 1.87 |
| 1988 | | 2.36 |
| 1989 | | 2.12 |
| 1990 | | 2.11 |
| 1991 | 5.45 | 2.56 |
| 1992 | 5.50 | 2.24 |
| 1993 | 5.30 | 2.41 |
| 1994 | 5.60 | 2.13 |
| 1995 | 5.20 | 2.40 |

| | | |
|------|------|------|
| 1996 | 5.40 | 2.98 |
| 1997 | 2.30 | 2.33 |
| 1998 | 2.00 | 1.97 |
| 1999 | 2.10 | 2.04 |
| 2000 | | |