

**A SPATIAL MODEL OF ARMS TRANSFERS
FROM THE MAIN SUPPLIERS TO THE FAR
EAST
(1990-2009)**

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INTRODUCTION

Changes in the dynamic of global forces produce shifts in the trend of arms transfers. It was therefore to be expected that a shift in the patterns of flows of arms would occur at the end of the Cold War and the collapse of the Soviet Union. The transfers of arms were the most important from the 1980's to mid 1990's into the Middle East, mainly due to the production of oil and the rise of the prices by the OPEC. A shift in that trend started to operate from the Middle East to Asia after the collapse of the USSR, the end of the Cold War and the economic growth of Asia, as well as tensions between Asian countries and internal instability within states (Klare, 1996). Some countries (Taiwan, South Korea, China, Malaysia and Singapore) are listed among the top ten importers in the world after 1990.

Currently Asia is the most important receiving region (Bromley *et al.*, 2009). Since 1988 Asia has become the second largest arms market after Europe, and exceeded the Middle East in imports (Shinyo 1995). Shinyo (1995) also asserts that the policy of the US has been to sell to its friends and allies. North Korea has never submitted a report on arms transfers to the UN Register and remains a highly militarized country. A particularity in Asia is the rise of South Korea as a major importer of arms. China and India aside (both needs to be important on the military stage as they have regional and global aspirations), South Korea is for the period 2004-2008 the leading importer in the region. It is the fourth largest importer in the world after China and India, and the world's largest importer of major conventional weapons in 2007-2008. The USA and Russia count for three quarters of the deliveries to Asia (Wezeman, 2009).

According to Willett (1994), the militarization of the Far East is due to tensions between South Korea and North Korea, and claims that economic development and military expenditure are linked. Wezeman (2009) speaks about international tensions

as reasons of increase in the arms trades in the region. Kinsella (1994) argued that the flows of arms create instability and threaten national security of the Western countries. Brzezinski (1997) claims that to maintain an equilibrium in the Far East it is vital for the US to be predominant in the region by not letting Japan have the need of increasing its military capabilities (to face a threat, mainly from North Korea). So it does not become self sufficient on a security level, and to attain that the US need to keep South Korea as the geopolitical pivot in the region. This could be one of the reasons why the transfers of arms to South Korea is so important.

It will be interesting to produce maps to predict patterns of flows from main exporting countries in the USA, Russia, France, Germany, UK and China to the Far East. A focus on South Korea will be carried out. The latter is particular because South Korea has always been receiving arms from the USA and since 1996 from Russia (Russia reduced considerably its exports towards North Korea since 1997; China stopped delivering arms to North Korea since 1996; SIPRI database, 1-07-10). Those events announced the future rapprochement of Russia towards South Korea after North Korea withdrew from the Non Proliferation Treaty (NPT) in 2003 (In 1992 North Korea had threatened to leave the NPT) (Kerr, 2005).

1.1 Problem definition

The above scenarios point a very complex network and competing factors or variables, which caused the actual shift and therefore the new pattern of arms trade. Here arms transfers is defined as the amount in constant (1990) US\$ in million, transferred regardless of the type of arms.

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Chapter 2

Flow mapping

2.4 The specifics of this study

Also most of the studies on arms transfers carried out focused on the Cold War period or the early 1990's and concentrated on the Middle East, Africa and the Persian Gulf, where most of the time oil resources and armed conflict were involved. These two variables usually go together with arms transfers. Sadowski (1992) argued that oil brings about a soar in arms imports because of the increased purchasing power that goes along with the resource. He also claimed that many oil-rich countries are located within volatile regions, which intensify the demand for arms.

Ball (1994), Willett (1994), Shinyo (1995), Heo (1996), Klare (1996), Bromley *et al* (2009), Wattanayagorn (2005), Wezeman (2009), have carried out serious research on the causes of the new rise in transfers of arms towards Asia. They pointed out the danger and the surprisingly new pattern that this actual region has become. However it is still equivocal as for why the pattern has moved from the Middle East to Asia and more particularly to the Far East. Oil and gas resources are not known as being independent variables in this case. Furthermore no Asian country is member of the OPEC, Indonesia joined this organisation in 1962, and suspended its membership in January 2009 (<http://www.opec.org>).

Generally the reasons that are evoked as being the determinants of the arms transfers to Asia are the economic growth, and tensions between countries. Ball (1994) speaks about “ancient animosities and border disputes”.

Chapter 3

Spatial modelling

3.1 The Patterns

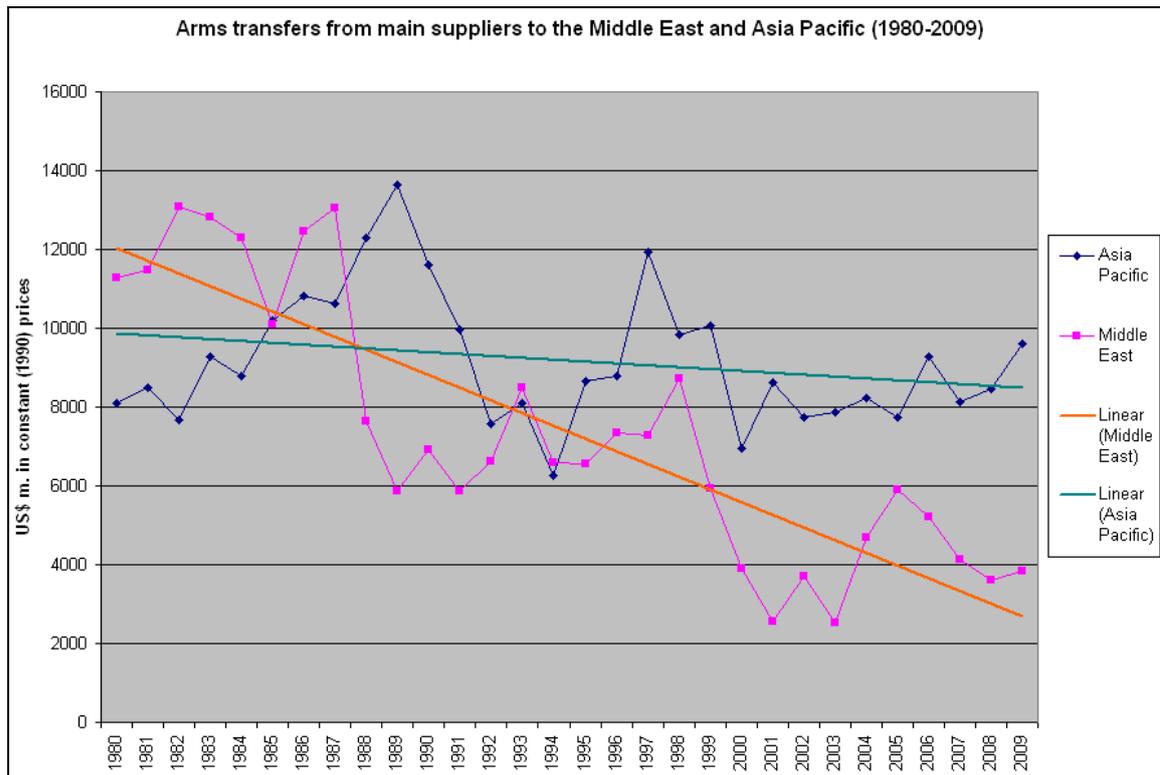


Figure 1.1 Arms transfers from main suppliers to the Middle East and Asia Pacific (1980-2009)

Figure 3.1 shows the trends of exports of arms from the main suppliers towards the main recipients in the Middle East and the Asia Pacific Area. It reveals a change in the pattern in 1988 when the exportations to the Middle East became lower than the ones towards Asia Pacific. Except 1993 and 1994 when the two trends overlapped, Asia Pacific remained the most important receiving region. It is conspicuous that from the end of the Cold War both trends decreased. The close fluctuations in the exports of arms suggest creating maps with short period so to reveal the pattern, visually.

3.1.1 The Middle East

During the 1970's while the world arms trade doubled, the Middle East arms import increased by four times. In the 1980's the region received half of all arms deliveries to the Third World and more than 25% of all arms shipments. The conflict between Israel and its neighbouring Arab states as well as the Iraqi/Iranian war, tensions between Syria and Iraq and Jordan, Kurdish rebels, the intra-Yemeni conflict increased the arms race in the Middle East, boosted by the rise of the price of oil. Also from the suppliers view, for example the United States, the Nixon doctrine promoted the sales of arms. American strategists claimed it to be cost effective to export arms to project US power abroad and it improves the US international balance of payments. The political dimension of the arms sales is that it creates profound diplomatic relation with a client country and influences its international political orientation. Arms sales involve the expatriation of thousands of technician and advisors. A Congressional study in 1977 showed that more than 2,000 American military personnel were in the Persian Gulf region. 10,000 Americans were working for civilian defence contractors in Saudi Arabia in 1978. Thousands of Americans have been withdrawn from Iran, while others have gone into Egypt. A similar pattern was found for Soviet arms transfers. The CIA estimated that in 1979 the Soviet Union had 2,480 military advisors in Syria, 1,820 in Libya, 1,065 in Iraq and 1,250 in Ethiopia. Arms sales are also seen as a military capacity for the state to conduct military operations for the supplier country like when the Iran destroyed the revolutionary movement in Oman in Dhofar in 1975, using US arms. The US also saw arms sales to Saudi Arabia as security for their presence in the country for years. It has been proven that arms sales to the Saudis constituted the basis of a project of the building of military bases in Saudi Arabia. Oman, Morocco, Turkey and Somalia were also countries where the US saw the transfers of arms as a first step towards establishing military bases (Stork *et al.*, 1983).

3.1.1.1 Recipients

The Middle East had been the first receiving region of arms in the world from 1976 to late 80'. Three reasons can explain this trend. First, is the number of conflicts and rivalries within the region. These include the Arab/Israeli conflict, the Iraq/Iran war, traditional rivalries between Syria and Iraq, as well as between Saudi Arabia and its neighbours, and civil wars in Lebanon, Iraq and Oman to name a few. Also the widespread concern of insecurity from the Soviet Union played a role in the militarization of the Middle East. Conflicts and potential conflicts always guarantee a high demand for the supply of weapon. The second factor that contributed to the considerable importation of arms in the Middle East is oil. The Organisation of the Petroleum Exporting Countries (OPEC) raised the prices of the petrol after 1971, plus the oil embargo applied after the Yom Kippur War (October 1973), entailed an excess of oil incomes to Arab countries. Those extra incomes were spent in armaments. Lastly, the competition for dominance in the region between the USA and the USSR who transferred a large amount of arms into the region through military assistance and military sales augmented the quantity of arms imports (Gerner, 1983; Klare, 1990; Kinsella, 2002).

3.1.1.2 Suppliers

The pattern of the supplying countries has not really changed and was dominated until 1990 by the USA and the USSR. This pattern has been altered by an increase of arms exportations by European competitors, mainly France, UK, Germany and at a lower extent but still important Italy, Spain, Switzerland, Sweden. In the 1980's Brazil, China and Israel also played a major role in arm flows (Klare, 1990).

3.1.2 Asia

3.1.2.1 Recipients

The imports of arms to Asia are different from the one to the Middle East. Asian countries unlike the Middle East when purchasing arms, also want to acquire the know-how technology. Furthermore traditional Western suppliers see military technology transfers as a mean to increase profits for individual companies, whereas the benefit in the long term is not clear cut. Unlike the Middle East, countries like Indonesia and South Korea do not only imports arms but they have become important arms exporter in the region. Asian states raised their share of imports from 15% per cent to 34% from 1982 to 1991 (Willett, 1994). Since the end of the Cold War Asia has become the first receiving region of arms in the world. Asian states received 37% of all transfers of major conventional weapons in the period 2004–2008, compared with 40% for 1999–2003.

For the same periods China and India were the world's two largest arms importers. Between 2004 and 2008 China, India and South Korea accounted for a quarter of the arms imports in the world. Transfers to East Asia (including South East Asia) accounted for 67% of transfers to Asia in 2004–2008, those to South Asia for 25%, to Oceania for 7% and to Central Asia for only 1%. South Korean imports of major conventional weapons were 61% higher in 2004–2008 than in 1999–2003. In 2007 and 2008 South Korea was the first importer of major conventional weapons in the world. The USA represented 73% of arms transfers to South Korea for the period 2004–2008 (Bromley *et al.*, 2009)

3.1.2.2 Suppliers

As mentioned previously the pattern of the suppliers in arms has not really changed. USA, Russia, UK, Germany, France and China still dominate the market (Bromley *et al.*, 2009).

Figures 3.2, 3.3, 3.4, 3.5 and 3.6 represent the arms transfers from the main suppliers to the main recipients in the Middle East and Asia Pacific. The first map shows the trend from 1980 until the end of the Cold War, followed by maps with a period of time of every 5 years.



Figure3.2. Arms transfers from main suppliers to the Middle East and Asia (1980-1990)

Arms transfers from main suppliers to the Middle East and Asia (1989-1994)

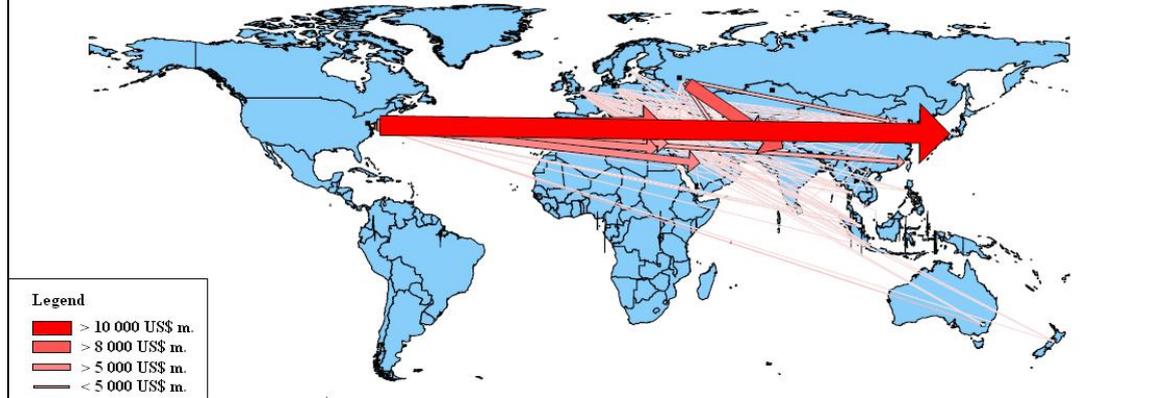


Figure 3.3 Arms transfers from main suppliers to the Middle East and Asia (1989-1994)

Arms transfers from main suppliers to the Middle East and Asia (1994-1999)

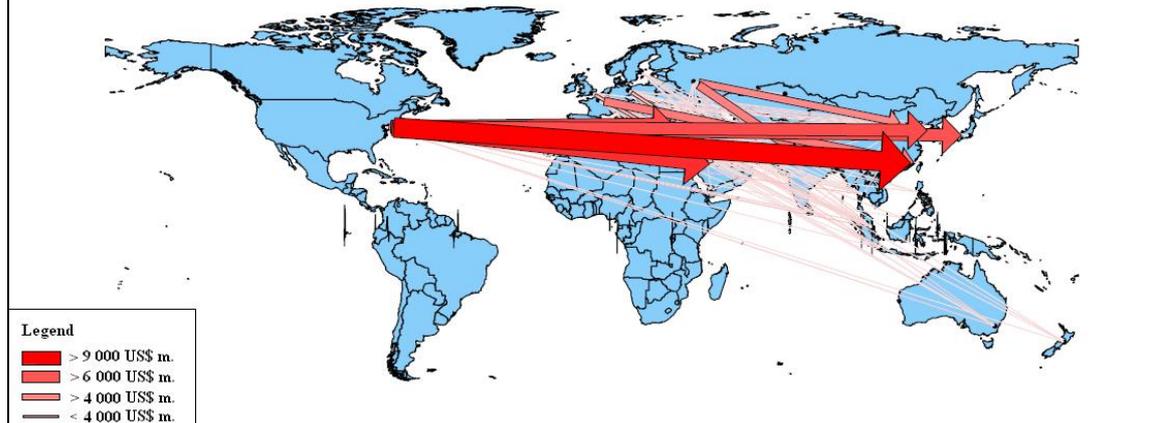


Figure 3.2. Arms transfers from main suppliers to the Middle East and Asia (1994-1999)

Arms transfers from main suppliers to the Middle East and Asia (1999-2004)

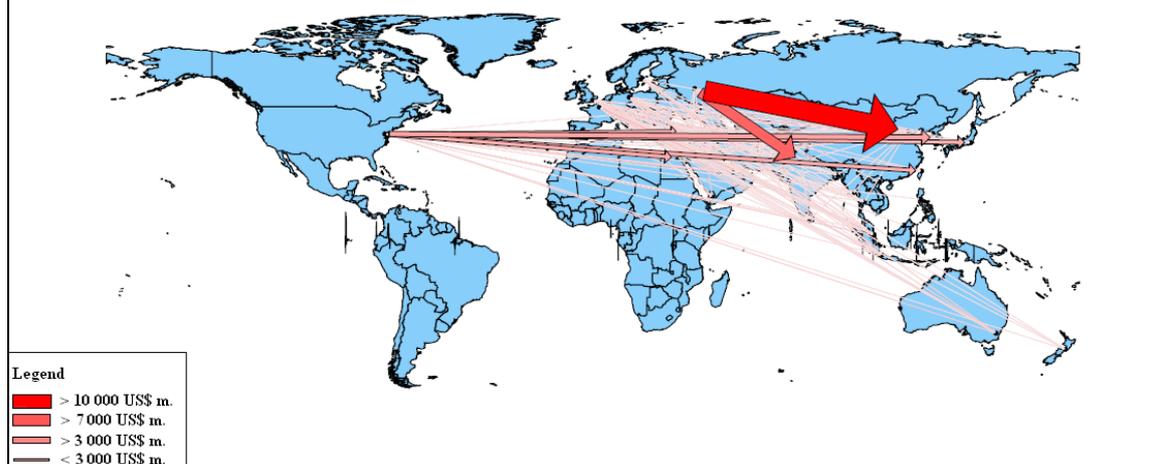


Figure 3.3. Arms transfers from main suppliers to the Middle East and Asia (1999-2004)

Arms transfers from main suppliers to the Middle East and Asia (2004-2009)

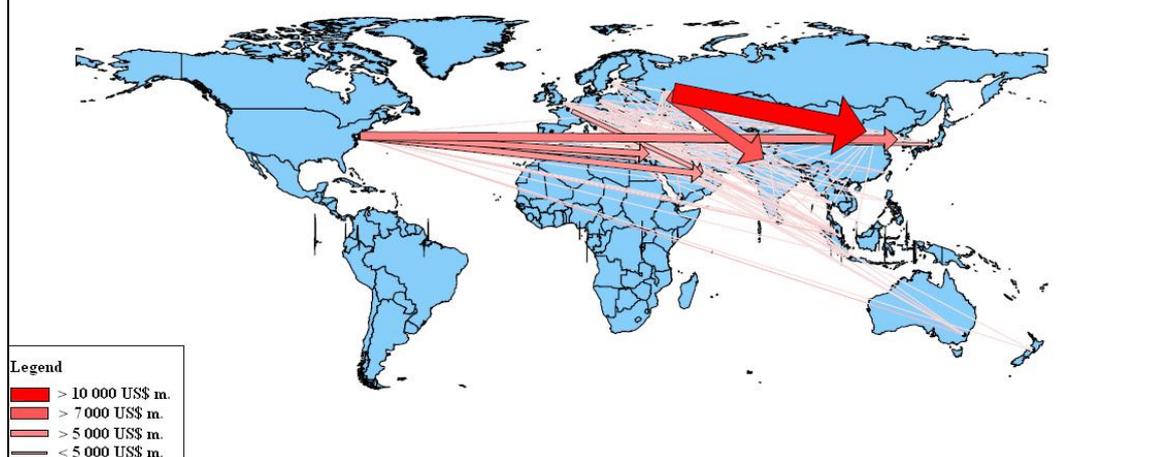


Figure 3.4. Arms transfers from main suppliers to the Middle East and Asia (2004-2009)

Chapter 4

RESULTS

4.1 Spatial Model

The spatial model shows that after the end of the Cold War, illustrated with Figure 3.3; 3.4; 3.5, a shift in the pattern of the receiving countries operated from the Middle East to Asia and more specifically to the Far East. The main receiving countries are India, Taiwan, China, Japan, South Korea and North Korea. The maps reveal that the USA supply high demand in arms in both the Middle East and Asia. The main clients for the USA in Asia are Japan, South Korea and Taiwan according to the maps. Also the USA still remains a high supplier in the Middle East, mainly to Saudi Arabia and Israel. Two periods have to be distinguished. The periods 1989-1999 and 1999-2009. Before 1999 the biggest arrows representing the highest transfers of arms were Americans and from 1999, Russia became the most important supplier in terms of visual pattern. That reveals that the trend of the patterns is highly dependent on the transfers of American and Russian arms. Two networks have to be denoted. A network comprising the USA, South Korea, Taiwan and Japan, and another one with Russia, China, India and North Korea.

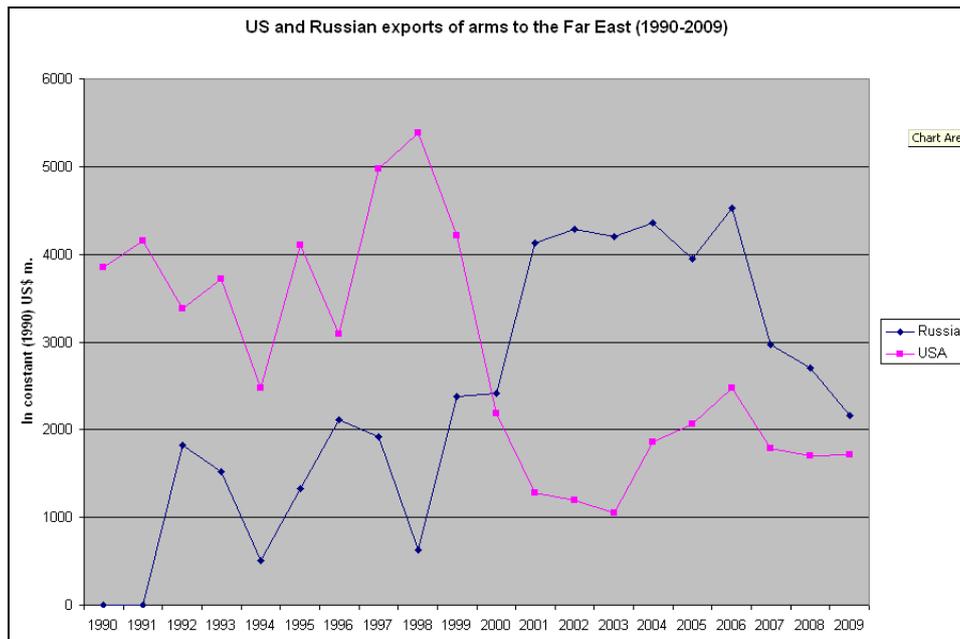


Figure 4.1. US and Russian arms transfers to the Far East (1990-2009)

Figure 4.1 can help understanding what happened around 1999. Actually it is from 2001 that the order in the pattern of the suppliers changed. The American and Russian arms sales were nearly the same in 2000. American sales were already collapsing and stabilized from 2001 to go slightly back up from 2003. 2003 is the year when the US invaded Iraq. It is also the year when the Bush administration decided to operate a re-shifting of their troops and bases abroad. Thousands of soldiers were moved from South Korea to the Middle East sparking concerns among South Korean officials. They felt more vulnerable to the North Korean threat without the presence of a high contingent of US troops. To offset this gap, South Korea invested in US arms in high quantity. The withdrawal of US troops triggered the purchase of US arms (Lachowski, 2007). Arms transfers are often justified in the literature by geopolitical or economic purposes (Klare, 2003 and Grimmett, 2005). The statistical model helps understanding more precisely, what determinants that create arms transfers are.

Klare (1996) argues that the reasons of the transfers of arms were mainly due to the end of the Cold War and the economic growth of Asia, as well as tensions between Asian countries. Willett (1994) who explained that the militarization of the Far East is due to tensions between South Korea and North Korea, and claims that economic development and military expenditure are linked. Wezeman (2009) pointed at international tensions as reasons of the increase in the arms trades in the region. Tensions between countries, economic and financial variables are among the most important reasons of the transfers of arms. Also, figure 3.1 shows a drop down in arms sales right after the Cold War. Based on Shinyo (1995) also asserts that the policy of the US has been to sell to its friends and allies, it is arguable that the variables *Military Personnel and Military Manpower*, plays a major role in the arms trade. This reveals that the US military troops are stationed in Japan and South Korea to prevent from the threat caused by North Korea (Willett, 1994).

Countries with good institutional structure, a good quality of bureaucracy, a respect of the law, a fair, predictable, and expedient judiciary, and low risk of corruption are likely to receive the more FDI. (It is assumed that countries like the USA and Western Europe fall in this category). Also high investment in a country contributes to its economic growth (Campos *et al.*, 2003). Borensztein *et al.* (1998) found that FDI impact directly and significantly on economic growth, and it is even more productive than domestic investment. Sarel (1996) argues that East Asian country had during the 90's a high rate of economic growth. This was due to production of goods and services: labour, capital, and technology. For most East Asian countries phenomenal growth rates go together with important rates of investment and major exports of goods. A high investment rate increases the capital stock, which is what creates wealth, and that this can permanently increase the growth rate through economies of scale.

We know from the work of Chan *et al.* (1992) that arms sales and FDI are directly correlated. They claim that major recipients of U.S. armaments are often the more populous states or regional powers. This is the case for Japan and South Korea.

The biggest part of the FDI flows between developed countries. Also we know that Military Expenditures attract FDI in the OECD countries whereas it has a negative impact in non-OECD countries (Gilady *et al.*, 2002). South Korea and Japan are both part of the OECD, however China, India, North Korea, Singapore and Taiwan were among the sample of the recipients along with Japan and South Korea, and are not member of the OECD. All the suppliers except China are members of the OECD (www.oecd.org). This sparks another area of research. We could for example analyze the difference in arms imports between non-OECD and OECD countries within the Far East.

South Korea rely on the presence of US military troops in the region and on its sole to prevent from any attack from North Korea. The region is also important strategically for the US. They replaced the removal of few of their contingent with exports of sophisticated arms to South Korea (Lachowski 2007).

The reasons of the two trends Russia-China-North Korea and USA-South Korea-Japan can be explained by the geopolitical context of the area. A struggle between hegemony and polarity is at stake. The USA trying to maintain their hegemony, this means to exercise a rule in the region. Russia and China defending polarity which is a structural distribution of power. The geographical location where this struggle takes place has its meeting point in North Korea, around the issue of its nuclear program (Kerr, 2005). Figure 4.3 shows a map that illustrates the militarization and tensions in the Far East. This configuration reminds somehow of the Middle East. The Two regions are the most important importers of arms in the world, The Far East is one of the richest regions in the world like the Middle East, the Far East most important tension is between Two countries which future vision is to form 1 like the Israeli/Palestinian case.

The Far East, A Zone of High Militarization and Tensions

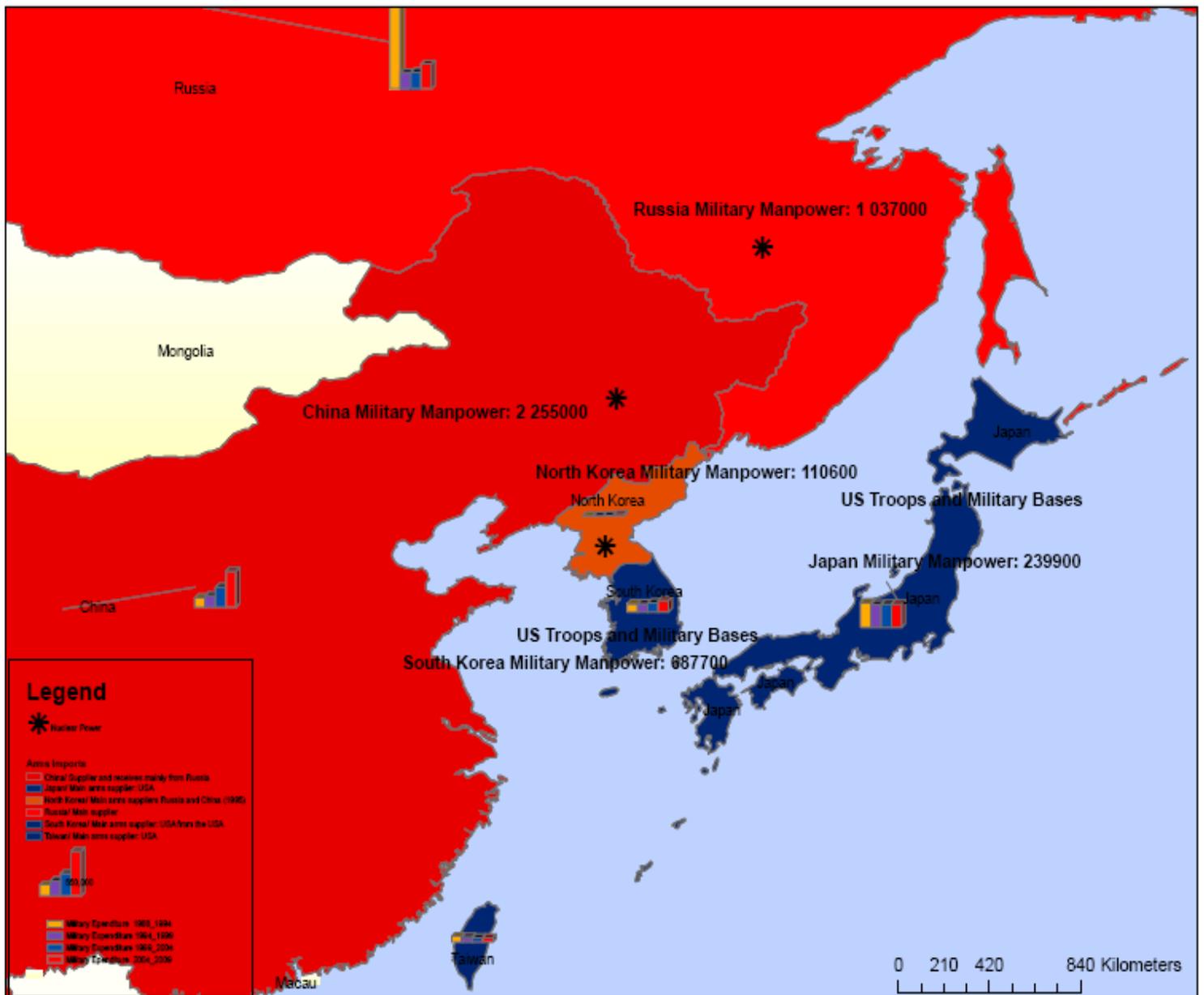


Figure 4.3. Militarization and Tensions in the Far East

Conclusion

GIS came out to be efficient for a geopolitical analysis. Academics should be using this tool more frequently, when dealing with international politics. As it helps visualising, understanding and simplifying the real world. Especially in complex issues.

The Far East is the more important region in terms of arms imports. The spatial model revealed no much change in the pattern of the sending countries. But on the other hand, it showed a shift from the Middle East to the Far East, right after the end of the Cold War.

Two networks have been denoted. USA, Japan, South Korea, Taiwan and Russia, India, China and North Korea. It reveals a geopolitical struggle between Great Powers, based on the USA securing their hegemony in the region and Russia and China protecting polarity.

South Korea is the country that receives the more arms from in the region, mainly from the USA. This to prevent from a threat from the Pyongyang regime. As mentioned previously the USA need to secure South Korea so Japan does not need to arm up. Therefore Japan could not play a regional role in Asia and would not threaten the US hegemony in the area. North Korea, which is a nuclear power, as a result becomes a key country in the region. We know that China stopped delivering arms to North Korea since 1996 and that Russia reduced its exports to North Korea considerably. It is then conceivable to ask the question, does the North Korean domestic behaviour justify the US international behaviour? The USA needs to keep their hegemony in the region. Their military presence has, then, to be justified. Without the North Korean threat, it will not be the case. That bring us back to the existing debate, does instability contribute to stability? Also, we can ask ourselves if it is in the interest of the USA to solve conflicts or to maintain them?

Another aspect of this research is that arms transfer seems to be the best indicator of international affairs. As the security of a country is directly threatened in the case of arms sales, suppliers that have global interest have to be careful and make sure they

sell to “friendly” countries. We can argue from this work that states have no friends but they have interests. Therefore arms transfers are like the mirror of relations between states and give a better idea of what international relations are, like in the case of the Contra Affair or as we saw previously the trend of the US to sell to its allies and the need of Great Powers to have bases and personnel based abroad. This to ensure their presence in strategic key areas, mainly. More focus should be given to the arms industry; “*armology*”, for example, could be a discipline that tries to interpret international affairs, in order to understand the real stakes and the relations in international affairs.

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