# Geopolitics

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## 1. Introduction[1]

The future of the forest sector in Canada will be profoundly affected by geopolitics – the relative economic and political power of nations and regions, and the relationships between them. Three components of geopolitics are important:

1. *The international trading regime* - we have been on a long post-World War II march towards the liberalization of trade, that seems to have stabilized somewhat. Despite this international pattern, Canada remains subject to trade actions by its largest importer. The future of Canada-US trade relations and the international trade environment is an important driver.

2. *The rise and decline of nations in relative terms* - what the future might hold for the structure of the global political economy that accounts for the dramatically increase importance, in absolute and relative terms, of developing countries, especially China and India.

3. *Global order* more broadly defined. This category includes those things that may pose serious threats to the nature of the world order as we know it: the rise of greater terrorist threats, pandemics, large scale wars, and the potential for mass migration of human populations as a result of these factors or significant and/or abrupt environmental change.

This paper provides an overview of the geopolitics driver. First, it examines geopolitics in the context of Canadian forestry by outlining its implications for other drivers, and then suggests how other drivers might influence geopolitics. Second, we survey trends in geopolitics over the past several decades in the three areas described above. Finally, we project some of these trends in to the future, and consider several plausible geopolitical scenarios, and speculate on their implications for the future of Canada forests and forest sector.

## 2. Geopolitics in the Context of Canada's Forests and Forest Sector

The influence of geopolitics on the forests and forest sector of Canada is less likely to be felt directly, and more likely to manifested through its impacts on other drivers. Table 1 provides a

[1] This paper has benefited from the research assistance of Jordan Best.

summary of the implications of geopolitics for other forest sector drivers.

Table 1: Influences of geopolitics on other drivers

| Driver | How Geopolitics Affects the Driver |
|---|---|
| Global Climate Change | The rise of carbon-intensive developing countries, most notably China, may aggravate the climate change problems significantly. |
| Global Wood Supply | International stability may influence the political conditions supporting the forest products sectors in competing nations, and their ability to trade internationally. |
| Forest Products Demand | All three geopolitical forces will probably influence this driver most directly. Continued liberal international trade and the rise of new market economies will intensify global demand for forest products. How much of that demand will be served by Canada depends on other factors, especially global wood supply and technology. If the global order is balkanized, there still should be opportunities for export to US markets. |
| Governance | By shifting the balance of power between nation-states and international institutions, trends in geopolitics could have significant implications for how forest governance shifts along the vertical dimension. |
| Global Energy | Geopolitical trends will influence the supply and price of oil and other conventional energy sources, affecting the viability of energy alternatives from Canadian forests. |
| Technology | Geopolitical stability will enhance the development and diffusion of technological innovations; instability could undermine it. |
| Values | A dangerous, unstable world order would increase concerns for physical and economic security, and might reduce the value placed on non-material benefits from the forest. |
| Aboriginal Empowerment | Limited influence. |
| Ecosystem Health | Limited influence. |
| Competition for Resources | Competing demands on Canada's forest land base will be influenced indirectly by geopolitics, through the drivers of energy and forest products demand. |
| Demographics | Geopolitical change could influence the quantity and pattern of immigration into Canada. |

| | |
|---|---|
| Industry Structure | The structure of the international political economy will affect the optimal scale for industry. The general tendency of globalization will be to give a competitive advantage to larger enterprises. |

Table 2: Influences of other drivers on geopolitics

| **Driver** | **How the Driver May Affect Geopolitics** |
|---|---|
| Global Climate Change | Climate change could result in coastal flooding and a significant shift in productive agricultural land, and a variety of other consequences that result in geographic shifts in environmental services. Depending on their scale and magnitude, these changes have the potential to foster violent conflict within and between nations. The UN has already linked the conflict in Darfur to climate change. |
| Global Wood Supply | Wood supply is unlikely to be a significant irritant in geopolitical relations, but changes in the relative advantage of competitors in our markets could have a significant impact on trade relations. The competitive problems of the US forest industry have fueled much of the protectionist sentiments underlying the softwood lumber dispute. |
| Forest Products Demand | See global wood supply. |
| Governance | Given its size, Canada's impact on geopolitics will be modest, beyond the potential moral influence of becoming a model of good forest governance. |
| Global Energy | As the relative scarcity of energy from fossil fuel increases, if only from environmental pressures, energy is likely to be one of the most important sources of international conflict. |
| Technology | Limited effect of forest sector technology. |
| Values | How Canadians value their forest will have a negligible effect on geopolitics. (Global values could have a massive effect.) |
| Aboriginal Empowerment | Limited effect. |
| Ecosystem Health | Within Canada, effects on geo-politics will be limited. Environmental change elsewhere could promote geopolitical crises (see Global Climate Change above). |
| Competition for Resources | Within Canada, effects will be limited, but competition for resources between or within nations could promote geopolitical crises. |

| | |
|---|---|
| Demographics | Population growth in the developing world is one of the most profound drivers of contemporary and future geopolitics. Large-scale migration of refugees from environmental or military crises could have significant implications for geopolitics. |
| Industry Structure | Limited effect |

## 3. A Look-back: Geopolitics since 1945

*The International Trade Regime*

In the wake of World War II, the US led development of a liberal international order with "free trade" as one of its cornerstones through the General Agreement on Trade and Tariffs (GATT). As an open economy dependent on international markets for economic development, Canada was a strong supporter of international free trade agreements. Through a series of rounds of trade discussions, barriers to international trade such as tariffs and quotas were gradually reduced. These changes have led to an explosion of international trade that is the most important driver behind the phenomenal globalization in the past quarter century. These trade agreements were expanded and updated in the World Trade Organization (WTO) in 1995. The so-called Uruguay Round, concluded in 1994, resulted in substantially reduced tariffs for forest products – for developed countries, tariffs on wood products were reduced by 43%, while tariffs on pulp and paper products were eliminated altogether (Barbier 1999). The Canadian forest sector has benefitted from these trade agreements because they have reduced barriers to trade with other countries.

In addition to these broad multilateral agreements, Canada has also embraced, with some initial reluctance, bilateral trade agreements with the economic giant to the south. The Canada-US Free Trade Agreement was adopted in 1988, and was expanded to include Mexico in 1994.

Despite these strong free trade agreements, and American and Canadian leadership in enacting them, the Canadian forest sector has been subjected to persistent trade action by the United States since the early 1980s. The result has been a variety of constraints on Canadian access to the US market for softwood lumber since 1986. These constraints have taken the form of either duties imposed by the United States, or agreements entered into by Canada, under pressure from the United States, to restrict its own exports to the US.

The modern history of the dispute began in 1982, with the US Department of Commerce began an investigation into whether Canadian stumpage practices subsidized Canadian lumber and were therefore "countervailable" with US duties. While the US declined to impose duties at the time, it set in motion a process that resulted in a Memorandum of Understanding in 1986, under which Canada agreed to impose an export tax of 15%. In 1991, Canada withdrew from that agreement, provoking a renewed response from the US, this time in the form of a 6.5% countervailing duty. Canada challenged the American action in the new, binding dispute

settlement mechanisms of the Canada-US Free Trade Agreement, and won (Nelson and Vertinsky 2004; Zhang 2007).

In the wake of that 1994 judgment, however, the US amended the Trade Act (the FTA applies each country's own domestic laws) to undercut the grounds for the Canadian victory. Fearing that another duty would be imposed, Canada again entered into an agreement, the Softwood Lumber Agreement, from 1996-2001. This agreement let a certain amount of lumber into the US duty free, but when that amount was exceeded, it imposed punitive duties. When that agreement expired, the two countries entered into another protected trade war, with the US imposing countervailing and anti-dumping duties of 26%. Canada challenged the US actions in dispute settlement mechanisms under both NAFTA and the WTO (Nelson and Vertinsky 2004; Zhang 2007). Despite a number of legal victories, in 2006 Canada again acceded to pressure by the tenacious US lumber lobby and entered into a new Softwood Lumber Agreement, this time for seven years. The new agreement contains a complex set of mechanism designed to limit Canadian exports either by quotas or by a graduated export tax (Zhang 2007).

Trade actions by other international competitors can have significant implications for international markets in forest products. A prominent recent example is Russia's policy shift towards limiting its exports of raw logs. After the collapse of the Soviet Union, the Russian forest sector declined precipitously. But growing demand in China over the past decade led to a surge in the export of unprocessed roundwood. Concerned about its lack of control over logging and the limited development of the domestic manufacturing sector, Russia imposed a significant tax on log exports in mid-2007. This dramatic policy change has the potential to produce significant changes in forest product trade (UN Economic Commission for Europe 2007). The most significant negative impacts of this change will be on countries who have been dependent on imports of Russian logs for their own forest sectors, in particular China, Japan, and Finland. The new policy could benefit other countries that export raw logs, including Canada (Roberts 2007).

*The Rise and Decline of Nations*

In the wake of the Second World War, the United States was the dominant economy in the world, after recovery from the War, European economies were very strong as well. In the past several decades, however, explosive growth in some developing countries has begun to shift to balance of power in the global political economy. As Table 4.1 shows, the rise of China, India and Brazil, whose economies were globally insignificant immediately following the war, has altered the global balance of economic power. The United States and Europe remain the largest global economies, they are facing increased competition from the emerging economies of China, India and Brazil. In 1950, the ratio of the GDP of the US and Europe to Brazil, Russia, India and China was 2.9, but by 1998 it had fallen to 2.0. The explosive growth in China and India over the past decade has narrowed the gap even further.

| GDP Levels (million 1990 international)[2] | | | | |
|---|---|---|---|---|
| **Country** | **1950** | **1973** | **1990** | **1998** |
| Europe (West and East) | 1 586 574 | 4 684 537 | 6 695 368 | 7 621 477 |
| Former USSR | 510 243 | 1 513 070 | 1 987 995 | 1 132 434 |
| United States | 1 455 916 | 3 536 622 | 5 803 200 | 7 394 598 |
| China | 239 903 | 740 048 | 2 109 400 | 3 873 352 |
| India | 222 222 | 494 832 | 1 098 100 | 1 702 712 |
| Brazil | 89 342 | 401 643 | 743 765 | 926 919 |

Source: Maddison, Angus. 2001. *The World Economy: A Millennial Perspective*. Paris: Development Centre of the Organization for Economic Cooperation and Development. Appendix A.

*Global Order*

A number of drivers of the future of the Canadian forest sector will be influenced by the general global climate of peace and order. A positive climate will foster international trade and economic growth, as well as increase demand for conservation and environmental quality. In contrast, a negative climate of violent conflict and instability could reduce trade and investment, and turn countries inward towards greater autarky and less civil international engagement. Global instability could undercut support for international institutions, and as concerns for physical and economic security increased, support for conservation could be eroded.

Despite widespread perceptions since 9/11 that the world has become a much more dangerous place, armed conflict among and within nations has declined substantially over the past several decades. A comprehensive overview of the trends in war can be found in the *Human Security Report* (Mack 2005; Mack and Nielson 2007). The report summarizes its results as follows:

> Over the past dozen years, the global security climate has changed in dramatic, positive, but largely unheralded ways. Civil wars, genocides and international crises have all declined sharply. International wars, now only a small minority of all conflicts, have been in steady decline for a much longer period, as have military coups and the average number of people killed per conflict per year (Mach 2005, 1).

Figure 1.1 shows trends in armed conflict since World War II. Across the world, there was a steady increase in armed conflicts until around 1990. Since then, they has declined precipitously. There has also been a significant decline in battle death rates. Battles deaths in the 1990s are one-third of what they were in the 1970s.

[2] For an explanation of the method of calculating International Dollars see: Maddison, Angus. 2001. *The World Economy: A Millennial Perspective*. Paris: Development Centre of the Organization for Economic Cooperation and Development. P. 171-2.

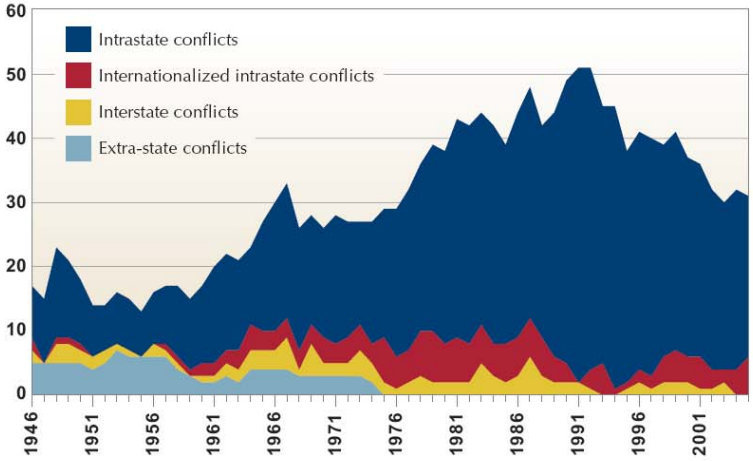



**Figure 1.1 Number of State-based Armed Conflicts by Type, 1946-2005**

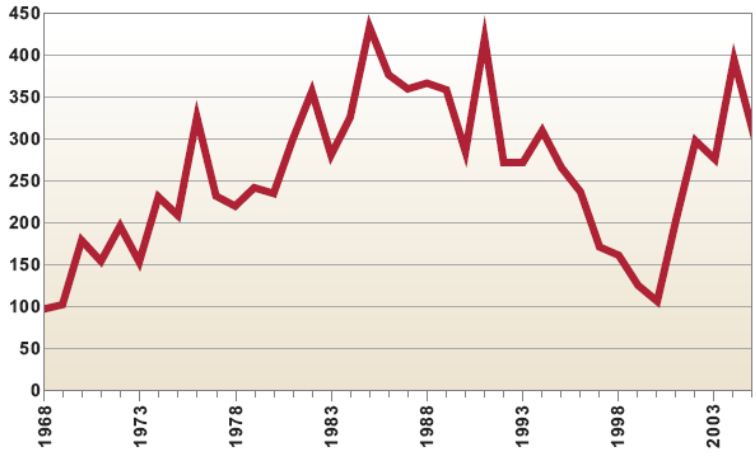
The rising share of intrastate conflicts as a percentage of all armed conflicts reveals how the nature of warfare has changed over the past 60 years.

*Data source: UCDP/PRIO*[15]

A subsequent report showed that armed conflict declined by a further 15% between 2002 and 2005, and battle death tolls declined by 40% over the same period (Mack and Nielson 2007).

While there has been a significant decline in armed conflict over the past several decades, there has been a rise in international terrorism. Available data indicated that the number of terrorist incidents followed the same patterns as armed conflict – a steady rise during the cold war era, and then a precipitous decline after 1991 (see figure). But unlike the armed conflict data, incidents of terrorism rose sharply after the turn of the millennium. The spike in terrorist incidents has been driven by dramatic increases in South Asia and especially the Middle East as a result of the war in Iraq. When those two regions are removed, the post-Cold War trend in the decline of international terrorism has continued (Mack and Nielson 2007).

**Figure 2.6 Number of International Terrorist Incidents, 1968-2005**




*Data source: MIPT Terrorism Knowledge Base*[30]

The reasons for this dramatic decline in armed conflict are complex, but relate to three profound changes in geopolitics. First, the demise of colonialism in the post-World War II period removed a major driver of violent conflict between nations (although it increased the number of civil wars). Second, and most importantly, "the end of the Cold War removed a major driver of ideological hostility from the international system." The end of the Cold War eliminated much of the fuel for armed conflict because the superpowers turned away from supporting clients in the developing world that fomented proxy wars. Third, the strengthening of international institutions and norms, particularly through the United Nations and its efforts, contributed to the resolution of many conflicts (Mack 2005, Chapter V).

Since it was first recognized in 1981, HIV/AIDS has risen in prominence to become one of the world's most deadly infectious diseases. Between 1981 and 2005, it is estimated that over 25 million people were killed by the disease (UNAIDS 1). Present infection rates are extremely high, with an estimated 38.6 million people living with HIV/AIDS at the end of 2005. While the global HIV incidence rate is believed to have peaked in the 1990s, the number of people living with the disease continues to rise, as show in Figure 1 (UN AIDS 8). The disease has a disproportionate impact on women, who suffer from higher infection rates than men. In Sub-Saharan African, where the effects of the disease have been particularly severe, around 6% of the adult population is currently infected (UNAIDS 13). Some countries, such as Zimbabwe, have adult infection rates of over 20% (UNAIDS 16).

**FIGURE 2[2]** Estimated number of people living with HIV, and adult HIV prevalence, globally and in sub–Saharan Africa, 1985–2005

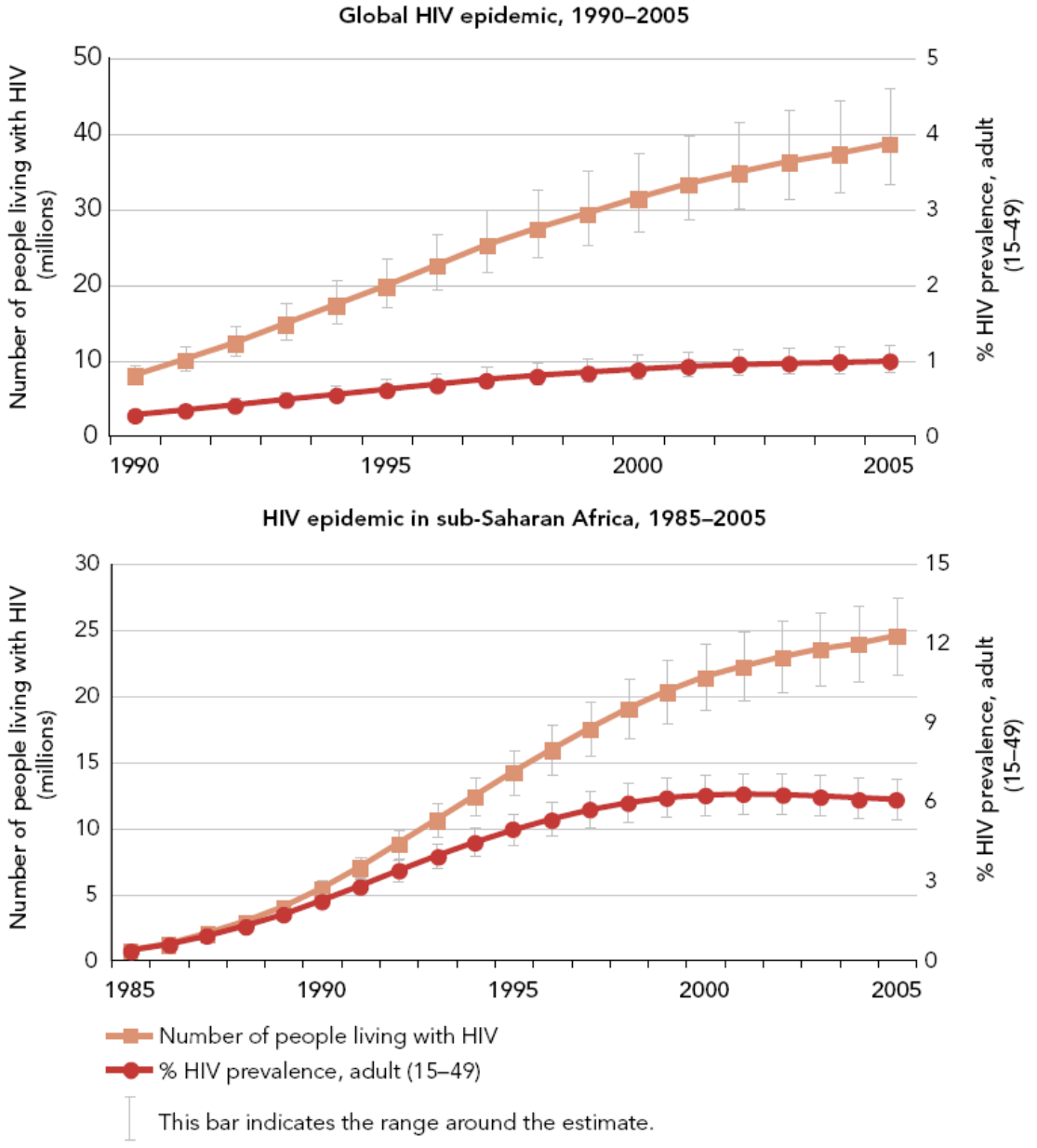



Figure 2 extracted from *2006 Report on the global AIDS epidemic* (UNAIDS, 2006), chapter 2.

[1]UNAIDS' HIV prevalence estimates describe the percentage of adult men and women (15–49 years) living with HIV nationally. These estimates incorporate a variety of HIV data, including those gathered in household HIV surveys and at antenatal clinics. Antenatal clinic HIV data, meanwhile, reflect only HIV prevalence in pregnant women who use public antenatal facilities. Comparisons between these two sources of data have shown that antenatal clinic–based HIV estimates tend to be higher than those based on household HIV surveys.

[2]Even though HIV prevalence rates have stabilized in sub–Saharan Africa, the actual number of people infected continues to grow because of population growth. Applying the same prevalence rate to a growing population will result in increasing numbers of people living with HIV.

The World Health Organization estimates that over 90 million individuals were infected with Tuberculosis between 1980 and 2005. In 2005 alone, over 1.6 million people died of the disease. While the HIV/AIDS epidemic has increased the rate of tuberculosis infection, it is generally believed that incidence rates are stable or in decline across the globe. As with HIV/AIDS, however, the total number of infected persons continues to rise, particularly in Africa and South-East Asia (WHO, 1).

**4. A Look-Ahead: Scenarios for Geopolitics**

The geopolitical future will be influence by a range of economic, political, and social variables. One significant concern is the link between climate change and disease, which could create additional stress on geopolitical order. According to the International Panel on Climate Change, rising global temperatures have already caused an increase in the number of global heat wave-related deaths and altered the distribution of many infectious diseases (IPCC 2007, 393). In the future, extreme weather events such as floods, heat waves, droughts and cyclones associated with climate change are expected to cause increased rates of mortality, disease, injury and displacement, particularly in the developing world (IPCC 2007, 394). The geographical range of malaria is expected to change substantially. While the range of the disease will contract in some areas, other areas will experience an expanded geographical range and seasonal variations in transmissions levels (IPCC 2007, 393). The IPCC also predicts that climate change will lead to an increase in the number of people suffering from diarrhoeal diseases, increased cardio-respiratory morbidity and mortality caused by urban pollution and ground-level ozone and changes to the spread and transmission of infectious diseases such as cholera (IPCC 2007, 393). While some positive health effects of climate change are also predicted, including fewer global deaths from exposure to cold, the negative health impacts of climate change are expected to substantially outweigh these positive effects (IPCC, 393).

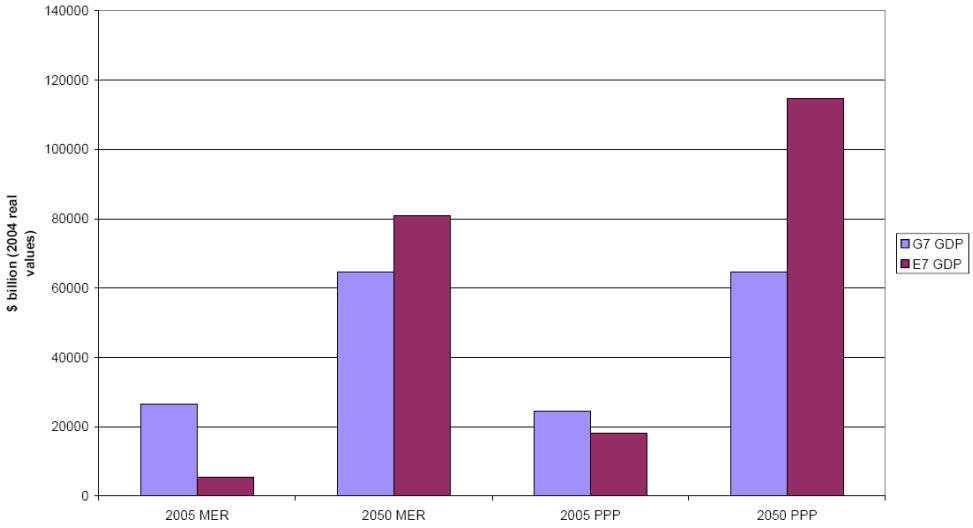
We will consider the general implications for Canadian forest futures of 3 future scenarios for geopolitics: the current path projected forward, Balkanization, and descent into disorder.

*The current path*. The first scenario we outline is the *current path projected forward*. In this scenario, we assume a combination of relatively benign environmental change, stable world order, and a surge in new market economies in a liberal trade environment that results in a shift of global economic power. While this scenario assumes relatively orderly growth and trade, it will involve quite fundamental shifts in geopolitical power based on population and economic development trends already in motion. In particular, the emerging market economies, led by China and India, will become much more influential due to fundamental shifts in the global economic balance of power.

One suggestive measure of the magnitude of this shift uses rates of growth in population and economies to project the relative size of economies in what we now consider the leading developed countries to what the economic world might look like in 2050. Figure A shows the results of a PriceWaterhouseCoopers study that compares the size of the G7 countries (US, Japan, Germany, UK, France, Italy, and Canada) with what it calls the E7 – the emerging market

economies of China, India, Brazil, Russia, Indonesia, Mexico, and Turkey. The calculations differ depending on how the nations are compared, but the results are striking in either case. When measured by purchasing power parity, the E7 moves from being only 75% of the G7 in 2005 to being 75% larger in 2050. According to the market exchange rate measure, the E7 moves from being only 20% of the size of the G7 in 2005 to being 25% larger by 2050 (Hawksworth 2006). This change in the relative size of economies will be felt in geopolitical power, as the emerging economies take on greater global strength.

Figure A: Relative size of G7 and E7 economies




This scenario would likely see significant increase in global demand of forest products, as well as a relative shift in that demand to E7 countries. There would also be continued and perhaps increasing value placed on environmental services and amenities from Canada's forests.

*Balkanization.* The second scenario we consider is *Balkanization*, in which we assume an increase in international conflict and the sporadic outbreak of environmental crises and violent conflicts, resulting in a shift away from the global free trade regime to regional blocs of like-minded or interdependent neighbouring nations. In this scenario, demand for Canadian forest products would like continue to be robust, but the main source of demand would be from the United States as a regional ally.

*Descent into disorder*. The third, bleakest scenario, envisions a *descent into disorder* as a result of some combination of environmental disasters and violent geopolitical conflicts undermines world order and seriously disrupts international trade. In this scenario, demands on the forest land base could remain intense, but would likely focus on energy and wood supply for shelter.

## 5. Conclusions

Geopolitics can have a significant influence of on the forests and forest sector of Canada, largely through its influence on other drivers. Perhaps the most significant channel of influence is the

relationship between international stability, liberal international trade, and demands for Canadian forest products. The next 40 years will likely witness a significant shift in economic and political power from the G7 to the emerging market economies of China, India, Russia, Brazil, and others. This global shift could significantly affect the market opportunities for Canadian forest products. Another important channel of influence is through the values driver. If significant threats emerge to the global world order from environmental crises, pandemics, war, or large scale problems, values would likely take a turn back to a more materialistic focus.

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