Demographics-Based Analytical Framework for the Assessment of Security and Regime Stability: The Case of the Middle East

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ABSTRACT

Defence transformation and force levels are ultimately connected with assessments of the global future security situation. Frameworks and models that could help NATO define the future threats facilitate the delivery of tomorrow's capabilities. The paper outlines a conceptual framework for assessing the risks of civil conflict and regime instability as a result of significant demographic growth. As a case study it discusses the demographic situation of one of the most volatile regions in the world—the Middle East. The proposed framework is based on a correlation between several demographic stress factors, such as the ratio between young workers to all working-age adults, GDP per capita and unemployment rates. The presence of ethnic or sectarian tensions is also considered. The probability of demographic growth to result in regime changes or democratic reforms is assessed based on a correlation between the strength of the youth cohort and the regimes' ability to retain power.

1.0 INTRODUCTION

Defence transformation and force levels are ultimately connected with assessments of the global future security situation. Frameworks and models that could help NATO define the future threats facilitate the delivery of tomorrow's capabilities. One of the approaches to future security analysis is through the assessment of long-term structural changes in human society such as population growth or decline. Indeed, the impact of long-term demographic trends on security is recognized by many NATO defence and security institutions, including Canadian Department of National Defence (DND), the Ministry of Defence (MoD) in the United Kingdom, the Central Intelligence Agency (CIA) and the National Intelligence Council in the United States (NIC).[1] The wars in Iraq and Afghanistan and the creation of the AFRICOM, has brought a renewed interest into the study of population changes as a factor in defence planning. Since 2006, the US Department of Defence (DoD) has acknowledged the role of demography in instigating conflict and encouraged its analysis into a comprehensive national security framework.[2] Four aspects of changing global demographics are particularly relevant to defence planning – the predominantly youthful population structure

[1] See Department of National Defence, *The Future Security Environment 2008-2030: Current and Emerging Trends* (Ottawa: Department of National Defence, January 2009), 30-32; *The Future Strategic Context for Defence* (London: Ministry of Defence, 2000); *The DCDC Global Strategic Trends Programme* (London: Ministry of Defence, January 2007); *Long-Term Global Demographic Trends: Reshaping the Geopolitical Landscape* (Washington, D.C.: Central Intelligence Agency, July 2001); Richard N. Haass, "Supporting US Foreign Policy in the Post-9/11 World," *Studies in Intelligence*, Vol. 46, No.3, 2002; *Global Trends 2015: A Dialogue About the Future With Nongovernmental Experts* (Washington, D.C.: National Intelligence Council, December 2000).

[2] Department of Defense, *Quadrennial Defense Review Report* (Washington, DC, February 2006)

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14. ABSTRACT
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15. SUBJECT TERMS

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and increasing urbanization in developing regions, increased international migration, and the effects of aging population and greater diversity in the developed nations on the military personnel.[3] This paper will deal with the first two trends as precursors for regional instability and political violence.

The crisis and risk paradigm holds that with time the information about a particular risk usually would increase, however, the options for effective mitigation would be proportionally reduced. Since a demographics-based analytical framework would naturally cover longer term trends, it can be utilized as a sufficient early warning tool for future conflict situations and thus assist NATO decision-makers in planning for defence transformation. The challenge, connected with assessing the future threats stemming from population changes, is that demographic trends are critical, but seldom the only factor contributing to violence and deteriorating security situation. It is, therefore, imperative, to develop a risk assessment framework, that integrates demographics along with other socio-economic factors.

The objective of this paper is to provide a conceptual framework for assessing the risks of civil conflict and regime instability as a result of significant demographic growth and its interaction with other socio-economic factors. As a case study, it discusses the demographic situation of one of the most volatile regions in the world—the Middle East. At the same time, the countries in this region, along with these in sub-Saharan Africa, possess the world most youthful population structures. In recent years, political scientists Graham Fuller and Larry Diamond have raised the issue of population growth and its impact on the security of the Middle East. Fuller focuses on the potential risks occasioned by demographic growth to regional stability and social radicalization,[4] while Diamond warns about the potentially destructive consequences demographic growth may have on the pro-Western regimes in the region.[5] The works of both authors, however, discuss these issues in very general terms and are focussed on policy recommendations, without properly analyzing the extent of the risks associated with the demographic boom, and without considering its impact on the individual Middle Eastern countries.

I have limited my geographical scope to 15 countries. Thirteen of them are considered "core" Middle East countries,[6] and are situated in the Arabian Peninsula and in the Fertile Crescent. They are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates (UAE), Yemen, Israel, Jordan, Lebanon, Syria, the Palestinian Authority (PA) Territories, and Iraq. I have also included Iran and Egypt with them because of their historical and geopolitical relations with the core countries.

2.0 MIDDLE EASTERN DEMOGRAPHY: AN OVERVIEW

The aggregate population in the Middle East has quadrupled from 60.2 million in 1950 to more than 271 million in 2005 (Table 1), and its share as a percentage of the world population has doubled from 2.5 to 5 percent.[7] On a regional level, the growth is more pronounced in some countries than in others. For example, the population of the UAE today is 59 times larger than it was fifty years ago, while that of Lebanon is only 2.8 times larger (see Table 1).[8]

[3] See Jannifer Sciubba, "Population in Defence Policy Planning," *New Directions in Demographic Security*, ECSO Report, Issue 12 (2008-2009), 19.

[4] Graham Fuller, "The Youth Factor: The New Demographics of the Middle East and Implications for US Policy" (Washington, D.C.: Brookings Institution, The Saban Center for Middle East Policy, June, 2003).

[5] Larry Diamond, "The Middle East: Between Democracy and Stability," *The Hoover Digest*, No. 1 (2005).

[6] Deborah J Gerner, Jillian Schwedler, ed., *Understanding the Contemporary Middle East* (Boulder, 2004), 1.

[7] Fuller, "The Youth Factor," 2.

[8] The reason for these discrepancies is most probably the different stages of demographic transition (see section Methodology) that Middle East countries were 50 years ago, as well as migration patterns.

Table 1: Middle East Populations, 1950-2005[9]

Country	1950	2005	% Growth
Bahrain	116,000	728,000	628
Egypt	21,514,000	77,154,000	359
Iran	16,913,000	70,765,000	418
Iraq	5,340,000	27,996,000	494
Israel	1,258,000	6,692,000	532
Jordan	472,000	5,566,000	1,179
Kuwait	152,000	2,700,000	1,776
Lebanon	1,443,000	4,082,000	283
Oman	456,000	2,628,000	576
Palestinian Territories	1,005,000	3,762,000	374
Qatar	25,000	885,000	3,540
Saudi Arabia	3,201,000	23,613,000	738
Syria	3,536,000	19,121,000	541
UAE	70,000	4,089,000	5,840
Yemen	4,316,000	21,024,000	487
Total	60,196,000	271,047,000	450

The Middle East possesses one of the youngest populations in the world. The region's population under the age of 15 is 33.1 percent, which is second only to that of sub-Saharan Africa (43.4 percent). Most countries in the region have cohorts of young people under age 24 that represent 50 percent or more of their total population. The "under 24" youth group represents 67.4 percent of Yemen's population, 65.2 percent of that of the PA territories, 61.6 percent of the Iraqi, 59.8 percent of the Syrian, and 54.1 percent of the Egyptian population. Countries whose young people comprise less than 50 percent of their total populations are Lebanon (46.6), the UAE (36.2), Kuwait (39.7), Bahrain (42.4), Qatar (35.7) and Israel (44.1). In fact, the first group—countries with above 50 percent of the population under 24 years—comprises most of the region's aggregate population or 94 percent. In comparison, developed regions such as Europe and North America have "under 24" populations of 15.8 percent and 20.5 percent respectively.

Table 2: Youth Cohort in Middle East Countries, 2005

Country	Population younger than 24	Percent population younger than 24
Bahrain	325,000	44.6
Egypt	42,743,000	55.4
Iran	37,081,000	52.4
Iraq	17,423,000	61.7
Israel	2,951,000	44.1
Jordan	3,267,000	58.7
Kuwait	1,072,000	39.7
Lebanon	1,878,000	46.0

[9] Unless otherwise stated, all population figures in this study are derived from: United Nations Population Division, *World Population Prospects: 2008 Revision Population Database*, accessed at http://esa.un.org/unpp/index.asp?panel=3

Oman	1,419,000	54.2
Palestinian Territories	2,453,000	65.2
Qatar	321,000	36.3
Saudi Arabia	12,515,000	53.0
Syria	11,743,000	60.0
UAE	1,468,000	35.9
Yemen	14,128,000	67.2
Total	150,787,000	55.6

Another important age group that has been pointed to by demographers and political scientists as the one most prone to violence is the group of 15 to 29 years old - also called the "fighting age" group. In the region as a whole, this group represents 31.1 percent of the total population. In comparison, the same demographics group constitutes 20.9 and 18.2 percent of the North American and Western European populations respectively. Middle East countries that possess greater percentage than the regional above average fighting age group are Iran (35.6), Syria (32.3), Qatar (32.4) and the UAE (32).

Table 3: "Fighting Age" Cohort in Middle East Countries, 2005

Country	Population 15 to 29 years old	Percent population 15 to 29 years old
Bahrain	197,290	27.1
Egypt	23,377,660	30.3
Iran	25,192,340	35.6
Iraq	7,934,880	28.1
Israel	1,599,390	23.9
Jordan	1,692,060	30.4
Kuwait	764,100	28.3
Lebanon	1,106,220	27.1
Oman	783,140	29.8
Palestinian Territories	996,930	26.5
Qatar	286,740	32.4
Saudi Arabia	6,706,090	28.4
Syria	6,176,080	32.3
UAE	1,308,480	32.0
Yemen	6,096,960	29.0
Total	84,218,370	31.1

3.0 METHODOLOGY

It is not population growth itself but the large size of the Middle East youth cohort that stands out in the demographic picture across the region. Historically, the existence of a large youth bulge has been linked as a contributing factor to violent social upheavals[10] and recent theoretical works have confirmed that.[11] Therefore,

[10] Examples include the Reformation, the French Revolution and the Rise of Nazism. See Herbert Moller, "Youth as a Force in the Modern World," *Comparative Studies in Society and History*, Vol. 10, No. 3 (April 1968), 237-260.

it is the feature that should be at the center of any analysis trying to assess the security implications of demography on the different countries in the region.

It should be pointed out first that there are different definitions of what represents a "youth bulge." In general, this term is used to designate a large proportion of youths to other groups of the population. Scholars differ, however, on which age groups should be considered as "youths" and whether the youth group should be compared to the population as a whole or to the adults aged 15 and over. Civil-conflict historian Jack Goldstone defines the "youth bulge" as the relation of youths between the ages of 15-25 to the population as a whole,[12] while political scientist Henrik Urdal uses the relation between 15-25 year olds to the adult population of 15 years and above.[13] Others expand the definition of young adults to those between the age of 15 and 29 (considered the typical fighting age).[14]

A work that acknowledges the risks associated with the youth cohort in stimulating civil conflict, and provides a useful theoretical basis for assessment of the risk level is that of Population Action International's analysts Cincotta, Engelman and Anastasion—*The Security Demographic: Population and Civil Conflict after the Cold War* (hereafter TSD).[15] TSD focuses on the group of young adults (in this case between the age of 15 and 29) as the group which can influence negatively the security situation in a particular country to the greatest degree. The study advances previous research by linking the existence of large cohorts of young people with high infant mortality rate, which is another demographic factor used to indicate a high probability of civil conflict. TSD argues that the two factors are simply the "[two] sides of the same coin," and are present in societies at a particular stage of their "demographic transition"—that is, a transition from a population characterized by short life expectancy and large families (typical of developing societies) to a population characterized by long life expectancy and small families (typical of developed societies).[16]

Countries in early stages of transition are at a greater risk of civil conflict, but that risk diminishes as the transition nears completion. Four factors, due to the stress they add on society during the early and middle phases of the transition, contribute to a greater risk of civil conflict:[17]

- The existence of a youth bulge, i.e., a very large cohort of young adults between age of 15 and 29 and the political volatility associated with such a group. Of particular importance is the proportion of young adults to all adults. A ratio of the first group to the second of 40 or more in a particular country is considered an indication that the country is in its early or middle phases of transition;[18]
- Rapid urban population growth and the associated social turbulence;

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11 Henrik Urdal, "The Devil in the Demographics: The Effect of Youth Bulges on Domestic Armed Conflict, 1950-2000," Conflict Prevention and Reconstruction Paper No. 14 (Washington, D.C.: The World Bank, July 2004).

12 Jack A Goldstone, "Demography, Environment, and Security," in Paul F. Diehl and Nils Petter Gleditsch, ed., *Environmental Conflict* (Boulder: Westview Press, 2001), 48.

13 Urdal, "The Devil in the Demographics," 7.

14 Gunnar Heinsohn, *Söhne und Weltmacht: Terror im Aufstieg und Fall der Nationen* [Sons and World Domination: Terror in the Rise and Fall of Nations] (Zürich: Orel Füssli Verlag AG, 2003).

15 Richard P. Cincotta, Robert Engelman and Daniele Anastasion, *The Security Demographic: Population and Civil Conflict after the Cold War* (Washington, D.C.: Population Action International, 2003).

16 Ibid., 22-23.

17 Ibid., 38. According to TSD, "each of these has been identified by a body of substantive research as a source of vulnerability to political instability, state failure or civil conflict." Nevertheless, the study acknowledges that none of "these four demographic stress factors are causes of civil conflict, and none has shown itself to be insurmountable"—Ibid.

18 Ibid., 43.

- Declining availability, on a per capita basis, of cropland and freshwater; and
- Rising death rates due to the spread of HIV/AIDS.

Observing the situation in the 36 countries which experienced civil conflicts in the 1990s, the TSD concludes that the likelihood of such conflict was highest where three demographic stress factors, at extreme or high level, were present in a country.[19] The occurrence of civil conflict in such cases was 40 percent. When two demographic stress factors at extreme or high levels were present, the likelihood of a civil conflict remained high—33 percent. In cases in which only one demographic stress factor was present—either a large youth bulge or low cropland/freshwater per person—the likelihood of a civil conflict was 24 and 12 percent respectively.[20] However, I argue that the TSD demographic stress factors cannot be adopted directly to assess the risks of civil conflict and political instability in the Middle East. There are number of weaknesses to the TSD methodology. First, it seems that the four demographic stress factors proposed by TSD are primarily applicable to sub-Saharan Africa where they are very prominent, including high rates of HIV/AIDS infection. Given the conservative nature of inter-sexual relations in the Middle East, the rate of HIV/AIDS cases is very low.[21] Therefore, the adult death rate factor is not really applicable to the region.[22]

Second, the TSD analysis excludes cases of conflict that are considered a continuation of previous conflicts, such as the civil war in Afghanistan during the 1990s.[23] TSD argues that in countries with a recent conflict, the chances of the latter recurring are high regardless of the demographic situation. Nevertheless, other scholars maintain that the exclusion of countries with recent conflicts is methodologically incorrect since the same statistical dependence holds for countries that have experienced consecutive years of peace.[24] In other words, if we follow the TSD's approach, there can be instances where the risk assessment level diverges from the potential for civil conflict to a significant degree. In the case of the Middle East, an example of such situation is Lebanon, where civil strife has reappeared since 2005, but which, having only one stress factor at a high level (freshwater/cropland availability)[25] would be placed at a low level of risk using the TSD method of analysis.

A third factor that weakens the direct application of the TSD framework to the Middle East is the region's relatively lower urban growth rates. With the exception of Yemen, Oman and the PA territories, the urban growth rates in the region are at medium stress level, i.e., between 1 and 4 percent.[26]

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19 The utility of the adult death rate factor has not been used in the risk assessment, since, according to TSD, the HIV/AIDS pandemic has not reached during the 1990s the rates of prevalence and the premature deaths experienced today and thus the countries with a extreme stress factor in this category were very few in number to enable the evaluation of its influence. Ibid., 72.

20 Ibid., 73.

21 The world's average HIV prevalence rate of 3.5 percent among 15-49 year olds is 25 times higher than that of the Middle East, which stands at 0.14. See TSD, Appendix 4: Country Data Table.

22 A recent paper by Steffen Krohnert ("The Formation of Extreme Youth Bulges and Armed Conflict between 1950-2000: An Empirical Analysis," presented at the annual meeting of the International Studies Association on 22 March 2006) actually challenges the notion that high HIV/AIDS rates would make a society more prone to conflict.

23 Ibid., 27-28.

24 Urdal, "The Devil in the Demographics," 9. In his modelling of youth bulges relation to armed conflict, Urdal proposes the use of a control variable termed "brevity of peace" (the number of years in peace since previous conflict).

25 TSD, Appendix 4: Country Data Table.

26 From 2000 to 2005, the average urban growth rate for the Middle East countries has been 2.9 percent—extrapolated from ibid., Appendix 4: Country Data Table. TSD defines urban growth rates as "extreme" (i.e., exerting an extreme pressure on the political system), when average annual rates are more than 5 percent, "high"—average annual rates are more than 4 percent but less than 5 percent, "medium"—average annual rates are more than 1 percent but less than 4 percent, and "low"—when average annual rates are less than 1 percent. See TSD, 51.

Finally, there are also several considerations that call into question the applicability of low freshwater/cropland as a demographic stress factor in the Middle East. First, all Middle East countries are in the extreme/high stress category with respect to the availability of freshwater (with Iran perhaps in a high stress level instead[27]). Hence, this is not really a differentiating factor for countries in the region. Also, the relationship between fresh water/cropland availability and civil strife is weak. In fact, in the conflict cases examined by TSD, countries which did not possess any of the four stress factors were 33 percent more likely to experience an instance of civil strife than those which had low freshwater/cropland availability as a stress factor.[28] What makes the low availability of freshwater/cropland a stress factor, in combination with a youth bulge, is the association of a large portion of the population with the agricultural sector. It is primarily this group which would be most affected by low levels of freshwater and cropland. High unemployment rates and migration to towns, the most likely result of an agricultural sector's decline, could make the population connected with the sector more susceptible to civil disturbances. In the contemporary Middle East, only Egypt, Iran and Syria have more than 20 percent of their population working in the agricultural sector. However, since urban growth in the Middle East countries for the period 2000-2005 has been moderate, the decline in the agricultural sector has either not resulted in significant migration or the size of the population involved in agriculture has not been large enough to generate significant urban growth. Therefore, the most visible effect of the decline in an agricultural sector may simply be the high unemployment rates. Since the unemployment rate is also applicable to the urban youth, which is less likely to find suitable employment in lesser developed countries, this may well be a better indicator of the likelihood of civil conflict than urban growth and low availability of freshwater/cropland. Indeed, theoretical models consistently link high unemployment to the conflict propensity of large youth cohorts.[29]

I will, nevertheless, adopt some aspects of TSD's methodology, namely, its definition of young adults as the group between 15 and 29 years old, the stress level scale—extreme, high, medium and low stress—that could be experienced by a country's political system as a result of a particular demographics related factor. TSD considers countries which possess a ratio of young adults to all adults of more than 50 percent to be experiencing an extreme stress on their political system. In countries, where the ratio is between 40 and 50 percent, the level of stress is evaluated as high. In countries with a ratio between 30 and 40 percent, the level of stress is considered medium, and finally, in countries with a ratio below 30 percent the demographic stress level is regarded as low.[30] A sound approach is also to use a correlation of several demographic stress factors to determine the risks of political violence, associated with the young bulge.

In order to construct a risk assessment framework more relevant to the Middle East, I will survey economic data and educational outcomes to determine whether the youth bulge in the region is likely to bring about political instability. Second, I will look at the factors that could most influence the young cohort to engage in political violence. The ability of current Middle Eastern regimes to deal with the challenges posed by the youth generation will be considered as well. Based on this analysis, I will suggest a new set of demographic stress factors that could be linked to a risk of political violence, radicalization, and probability of regime change and reform in the Middle East.

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27 Iran is actually projected to join soon the group experiencing high stress level of freshwater/cropland—see Gardner-Outlaw, Engelman, "Sustaining Water, Easing Scarcity," 16. Power outages in Iran as a result of low water levels are already taking place. See "Iranians Told to Save Power or Face Daily Blackouts," *Middle East Times* (21 June 2008).

28 Civil conflict occurred in 16 percent of the countries which did not have any of the demographic stress factors as opposed to 12 percent of these with low freshwater or cropland availability. See TSD, 73. Goldstone ("Demography, Environment, and Security," 45) even argues that "[l]ong term environmental degradation, whatever popular misery may follow from it… does not generally lead to violent conflict."

29 See for discussion Urdal, "The Devil in the Demographics," 3-4, and ibid., 14 for the results of his statistical modelling.

30 TSD, 48.

4.0 YOUTH POPULATION AS A FACTOR OF STABILITY OR INSTABILITY IN THE MIDDLE EAST

By itself, having a youthful population is considered a neutral factor. According to a United Nations Development Programme (UNDP) report, the youth cohort could be either a gift or a curse for the region, depending on whether the Middle East countries are able to tap this human potential to produce economic growth, while at the same time being able to satisfy young people's aspirations for a fulfilling life.[31] However, population growth can only be an engine for economic growth when "other factors conductive to economic growth—such as high levels of investment and appropriate types of technological know-how—are present."[32] When these factors are not present, the result is likely to be the opposite—an impoverishment of the population, as more and more people compete for limited jobs and resources. The larger the number of young unemployed people, the larger the level of frustration building up in Middle East societies and the likelihood of youth resorting to violence.[33]

Given the export-oriented economy of the Middle East and its reliance on workers from outside the region,[34] there is little chance of satisfying the needs for social infrastructure and employment of the new youth generation in the region. Presently, one quarter of the world's unemployed young people between 15 and 24 years live in the Middle East.[35] According to Marwan Muasher, a former foreign minister of Jordan now working for the World Bank, 100 million new jobs need to be created in the Middle East in the next 10-15 years in order to meet the demand of new generations.[36] The competition for jobs could be even fiercer as a result of increased participation of women in the Middle East labour markets.[37] Already, women are playing a significant role in the economies of some Middle East countries. For instance, in Kuwait women contribute 24.7 percent of the family income, in Egypt 22.1 percent, and in Saudi Arabia 10.4 percent.[38]

In order to alleviate demographic pressures, Middle East countries not only face the challenge of creating employment opportunities, but also of educating young people to perform on the job and of providing them with adequate housing. Statistics indicate that the region is not coping well with the educational challenge. In fact, according to the UNDP, adult literacy rates dropped from 60 percent in the 1980s to 43 percent by the mid 1990s.[39] Most probably, it was the lower literacy levels among the young generation (those raised between 1980 and 1995) that has brought the rates down. Only nine percent of Arab youth enrol in higher education, and primarily in non-technical and non-scientific fields. Overall, in the last decade, the number of individuals possessing university degrees has dropped by 15 to 30 percent in Egypt and Jordan.[40] The reason

[31] *Arab Human Development Report 2002* (New York: United Nations Development Programme, 2002), 38.

[32] Ibid.

[33] Urdal, "The Devil in the Demographics," 3. Some scholars explain the link between low economic growth and violence with the theory that the low foregone income (usually the case during unemployment) facilitates the participation in a rebellion. See Paul Collier and Anke Hoeffler, "Greed and Grievance in Civil War," *Oxford Economic Papers*, Vol. 56, No. 4 (2004), 588.

[34] In many Middle East countries, the native population is reluctant to engage in certain sectors of the economy and would rather rely on minimal support from the government.

[35] N. Janardhan, "Economic Diversification and Knowledge Economy," *Arab News*, 31 May 2007.

[36] As quoted in "Do not Impede Arab Growth," *Middle East Times*, 15 February 2008.

[37] This phenomenon is due to the realization of young Muslims that, in a period of dropping incomes across most of the Middle East, it is important to have two breadwinners in the family. See Fuller, "The Youth Factor," 11.

[38] Fuller, "The Youth Factor," 11.

[39] *Arab Human Development Report 2002*, 51. It should be noted that these rates are still higher than both the international and developing countries averages.

[40] Fuller, "The Youth Factor," 14.

for lower levels of education in the Middle East is two-sided. First, there are still not enough jobs to absorb university graduates that correspond to the level of their education.[41] At the same time, in some instances, there is a lack of adequate educational infrastructure. In Saudi Arabia, for example, only one out of five applicants is accepted as an undergraduate because of the lack of space, a situation which creates significant social tensions.[42] Adequate housing is also an issue. A 2005 report prepared for the World Bank and covering eight Middle East and North African countries concluded: "[…] there is a significant shortfall in production [of affordable housing] in most of the countries in the sample," and that "the provision of subsidized housing and/or subsidized financing and production will not effectively address this problem."[43] The report linked the availability of affordable housing with poverty, unemployment rates and the overall economic growth of these countries.[44] Moreover, in the Middle East, availability of housing is associated with marriage, and thus the lack of it is a source of social frustration. It is therefore not surprising that the provision of housing by Islamist organizations is attractive to young people. In the past, Middle Eastern states have dealt with demographic pressure by expanding the government sector and the military. However, these traditional approaches have reached their limits and are no longer able to absorb the growing labour pool. The size of both the security apparatus and the public sector in the Middle East is already disproportionately large to the population as a whole and not likely to grow significantly in the future.

The Middle East is not dealing with the young bulge in a single manner. In the last few years, with the rise of the price of oil, the Gulf Cooperation Council (GCC) countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates), in particular, have invested heavily in infrastructure projects likely to create a considerable number of employment opportunities for young people.[45] For example, the King Abdullah Economic City project in Saudi Arabia is projected to create one million jobs for the country's youth,[46] while other GCC countries are trying heavily to diversify their economies and expand opportunities in the services sector.[47] Iran, on the other hand, has done a poor job of investing its huge oil revenues in the creation of employment for its significant young cohort. The unemployment among the 15 to 29 age group in Iran was estimated to be 52 percent in 2006, which was four times the national unemployment rate of 13 percent.[48] In other words, when assessing the impact of the demographic youth bulge on the Middle East, more attention should be paid to the particular circumstances of each country.

Overall, it can be concluded that the demographic boom in the Middle East has not been addressed adequately by most regional governments. Therefore, given TSD findings on the role of the youth bulge, the presence of young populations in these countries would probably have negative implications, such as increased radicalization and political instability.

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41 Again, educational attainment may have a positive effect, only in the case that the young people are able to obtain an employment and political influence corresponding to the level of their education. When the opposite occurs, the large number of educated youth may have a negative impact on the political stability. See for discussion Urdal, "The Devil in the Demographics," 4.

42 Ibid., 16.

43 Deniz Baharoğlu, Nicolas Peltier, and Robert Buckley, "The Macroeconomic and Sectoral Performance of Housing Supply Policies in Selected MENA Countries: A Comparative analysis," World Bank Report, April 2005, viii.

44 Ibid., 3-8.

45 By mid-2007, more than US$1 trillion is estimated to have been invested in infrastructure projects in Gulf Cooperation Council (GCC) countries—Janardhan, "Economic Diversification."

46 According to the project's official website at http://www.kingabdullahcity.com/en/.

47 For example, 78 percent of the UAE's working population is employed in the services sector and only 15 percent in the oil sector—"United Arab Emirates," *CIA World Factbook*.

48 Jahangir Amuzegar, "Iran's Unemployment Crisis," Middle East Economic Survey, Vol. XLVII, Issue 41 (October, 2004).

5.0 YOUNG PEOPLE AND RADICALIZATION IN THE MIDDLE EAST

Before young men decide to engage in violent acts they usually go through a process of radicalization, i.e., a process through which they develop the belief that their society should go through a fundamental change (the meaning and implications of which they may not fully comprehend). This process may, or may not, lead to formal participation in extremist organizations.[49] In the Middle East, a factor working against radicalization is the more traditional and conservative nature of its societies, which creates a social predisposition against change. On the other hand, the level of political control in the Middle East, exercised by the ruling regimes on their populations, is much greater than in the West. While some countries (e.g., Egypt, Yemen, the GCC countries, and Jordan) allow for the existence of an official opposition, the latter nevertheless is seen as posing a minor threat to their regimes. In other words, there are few opportunities for youths to complain about their governments, which they would like to do due to the economic factors already mentioned. In such a situation, the youth cohort may resort to channels offered by "non-official" opposition, for instance, organizations subscribing to Islamist principles. Although not all such organizations can be classified as radical, and even fewer as violent, those that are seen as most critical of the regimes are most likely to attract the dissatisfied among the young generation. In addition to criticism of existing regimes, Islamist organizations offer valuable social services and youth-oriented social programs, e.g., cheap housing, free education, holding mass marriages to reduce their costs, and promoting reduced dowry requirements.[50] In other words, Islamist organizations not only advocate, but they actually create an alternative social order, a situation which further alienates the young generation from the official state institutions and the government.

Islamism, or political Islam, is an ideology, much like Arab nationalism and Arab socialism that rallied Middle East populations in the decades after World War II against imperialism and the older elites. As an ideology, Islamism incorporates Islamic values as a means to offer a comprehensive system of thought, but it is also as much a religious as it is a political current.[51] Much like Arab nationalism and Arab socialism in the 1950s, the most radical versions of Islamism seek to overthrow the current regimes and oppose Western interference in Middle Eastern affairs and the encroachment of Western values on Islamic culture. Instead of political and legal systems that radical Islamism perceives as corrupt and unjust, it idealizes a system that is completely based on the Muslim scripture and tradition—a system it believes brought about the glorious times of the early Islamic state. Therefore, radical Islamism in contemporary times is the revolutionary ideology that, in the eyes of many Muslims, seems to offer a means of changing the existing order. Given the level of dissatisfaction and grievance among the youth cohort in the Middle East, it is also perhaps the most attractive to this group. Paradoxically, the Islamist message and the participation in Islamist organizations are encouraged by the very regimes these organizations are trying to remove as a strategy to fend off demands by the democratic opposition for greater liberalization of society (see next section). According to Robert Pape, in many Middle East countries a significant part of their population is under the influence of Salafism (the main Islamist current)—e.g. Egypt (37 percent), Jordan (33 Percent), Yemen (44 percent) and Saudi Arabia (86 percent).[52]

The difficult economic situation and predominately non-democratic political environment prevalent throughout the region suggest that the preconditions for greater radicalization of the younger generation are

[49] See for the differences between radicalization and recruitment, i.e., joining a terrorist organization, Brian Michael Jenkins, "Building an Army of Believers: Jihadist Radicalization and Recruitment," Testimony Before the Committee on Homeland Security, Subcommittee on Intelligence, Information Sharing and Terrorism Risk Assessment, United States House of Representatives (5 April 2007).

[50] Fuller, "The Youth Factor," 26.

[51] See Johannes J.G. Jansen, *The Dual Nature of Islamic Fundamentalism* (Ithaca: Cornell University Press, 1997).

[52] See Robert Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2006), 110.

present. An example of the degree of radicalization among Middle Eastern youth could be provided by the age group of the 9/11 hijackers, among whom all but two were under 30 years old. Furthermore, given the demographic profile of the Palestinian territories and Lebanon (see Table 2), the popular support for Hamas and Hizbullah (both radical Islamist organizations, the former having won a democratic election in 2006) must have also come in large part from these countries' dissatisfied youth.

6.0 REGIME STABILITY IN THE MIDDLE EAST: AN OVERVIEW

Most current regimes in the Middle East are widely perceived as corrupt and repressive by their citizens. According to Johannes J.G. Jansen, since there are very few opportunities to express their critical opinions freely, for many radicalized Muslim youth the only logical choice (excluding immigration) that is left is the use of force.[53] A connection between radical Islamism and violence has been established by Robert Pape, according to whom the likelihood of a suicide terrorist to come from a country with a significant Salafi-influenced population is two times greater than from a country with a non-Salafi-influenced population.[54] As pointed out in the previous section, the Middle Eastern regimes (and by extension their Western allies) are the primary targets of the youth cohort's wrath. It can then be surmised that until the youth bulge starts to diminish and its impact is mitigated, the risks of political violence and regime change in Middle East countries will continue to be high. To gauge the possibility of the youth generation's anger translating into political violence and instability, it is important to consider how stable the regimes are and how they are able to cope with the increasing pressure for political change. This section presents a short review of the political currents that could mobilize the masses in the region and the regimes' responses so far.

The first domestic challenge to current Middle Eastern regimes was mounted by radical Salafism in the 1960s.[55] Radical Salafism denounced the regimes as apostate governments that should not be considered truly Muslim and thus they should be annihilated through jihad. In the 1970s and 1980s, jihadi groups[56] considered the regional governments as the greatest enemy, the "near" enemy as they called it, and felt that fighting them was more important than fighting the "far" enemy, i.e., Israel, the US and the "corrupt" Western values they represented.[57] As late as 1995, Ayman Al-Zawahiri, al-Qaeda's second in command, maintained that "Jerusalem will not be liberated unless the battle for Egypt and Algeria is won and unless Egypt is liberated."[58] As the confrontation escalated to violence and sometimes full-blown revolts in the 1980s and 1990s, the regimes unleashed the states' security apparatus to confront the jihadi groups with force. The Muslim Brotherhood revolt in Hamah, Syria, resulted in the killing of between 10,000 and 25,000 civilians and the partial destruction of the city in 1982,[59] while the insurgency by the Islamic Group (*Al-Gama'a al-Islamiyya*) in Upper Egypt led to the death of more than a 1,000 of its members and to the detention of 30,000

53 "Faraj and the Neglected Duty: Interview with Professor Johannes J.G. Jansen," *Religioscope*, (December, 2002).

54 Pape, *Dying to Win*, 110. Pape is quick to point out, however, that the causal relationship between the number of radical Islamists and the number of suicide terrorists is much weaker than the one observed between the presence of US combat operations in Muslim countries and the number of suicide terrorists originating from these countries. Ibid., 112-113.

55 No elite change has occurred in the Middle East since 1960s and 70s.

56 These are defined here as militant, neo-Salafist groups, aiming to establish a state, which enforces complete application of Islamic law both in private and in public life.

57 See, for example, the creed of the jihadi organization, The Islamic Group, whose members assassinated the Egyptian President Anwar Sadat—"*Al-Faridah al-Gha'ibah*," available translated in Johannes J.G. Jansen, *The Neglected Duty* (London: Macmillan, 1986), 192.

58 As cited in Fawaz A. Gerges, *Journey of the Jihadist: Inside Muslim Militancy* (Orlando: Harcourt Books, 2007), 176.

59 Seth Wikas, "Battling the Lion of Damascus: Syria's Domestic Opposition and the Asad Regime," Policy Focus #69 (Washington, D.C.: The Washington Institute for Near East Policy, May 2007), 22.

others.[60] In the 1990s, jihadi organizations had to admit that they had been defeated by the Middle East governments and switched their focus to the "far" enemy, as the founding members of al-Qaeda did,[61] or renounced their violent views, as the Islamic Group did.[62] That it was the state repression which was the main cause for changing the jihadi groups' behaviour and ideology was explicitly acknowledged by the leaders of the Islamic Group. They came to the conclusion that the confrontation outweighed its benefits and thus jihad, in this case, should be considered forbidden. The only success of Islamists was the Iranian Revolution in 1979, which established Iran as a state under the strict guidance of Islamic law, and placed Muslim jurists in control of the state's affairs.[63]

Beginning with the fall of the Berlin Wall in 1989, and especially after the ousting of Saddam Hussein by the United States in 2003, current Middle East regimes have been faced with another challenge to their power—that of democracy. American policy-makers believed that the regime change in Iraq, in particular, would trigger a "democratic tsunami" in the region.[64] However, the regimes have coped quite well with this challenge. As in the case of the jihadi groups, repression, albeit on a milder scale, has been utilized as an effective strategy against liberal reformists. The real success of the regimes in handling the challenge posed by demands for democratic reform came, however, first from resurrecting Arab nationalist ideology and, second, from playing pro-democratic elements off against Islamist opposition.

The main defence of the current regimes against the demand for democratic reforms has been by presenting Western (i.e., American) Imperialism, Zionism and their domestic "collaborators" as the main danger to Arab identity. According to the Syrian President, Bashar al-Assad, the Arab world's most important problems are not dismal economies and dictatorships but the "threat to mind, spirit, identity, and heritage" of Islam and Arabism from a "systematic invasion" from the West.[65] Al-Assad has used even militant rhetoric by expressing a readiness to change the balance of power and to go to a war against Western adversaries, if necessary.[66] Such a strategy has several implications. First, it diverts the attention of its citizens from domestic worries, for which the regime is directly responsible, and channels public frustration towards external, fictitious problems, for which the regime can actually take credit for "dealing" with. Second, the strategy pre-empts the radical Islamists' message to the masses, since the regimes' rhetoric becomes very similar to the strategy chosen by the jihadi groups to focus on the "far" enemy as a rallying point for support. Third, it delegitimizes the democratic opposition, whose members are automatically branded as traitors. The editor of Al-Osbou, which is a pro-government newspaper in Egypt, stated in this regard that "those who ally themselves with foreign quarters to harm Egypt's national security are crossing the red line and should be executed in a public square."[67]

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60 Omar Ashour, "Lions Tamed? An Inquiry into the Causes of De-Radicalization of Armed Islamist Movements: The Case of the Egyptian Islamic Group," *Middle East Journal*, Vol. 61, No. 4 (Autumn, 2007), 17.

61 Ibid., 177.

62 Ashour, "Lions Tamed?" 26.

63 It should be pointed out that the success of the Iranian revolution was not due to the strength of the Islamist forces but due to the unique cooperation between all social groups, Islamists, conservatives and liberal reformers alike, against the Shah's regime. See Nikki R. Keddie, "Iranian Revolutions in Comparative Perspective." *The American Historical Review*, Vol. 88, No. 3 (June 1983). Iranian Islamists were only able to consolidate the power in their hands in the years following the revolution.

64 James L. Gelvin, *The Modern Middle East: A History* (Oxford: Oxford University Press, 2005), 231.

65 As cited in Barry Rubin, "Pushback or Progress? Arab Regimes Respond to Democracy's Challenge," Policy Focus #75 (Washington, D.C.: The Washington Institute for Near East Studies, (September, 2007), 3.

66 Ibid.

67 As quoted in Nadia Abou El-Magd, "Seven Years," *Al-Ahram Weekly*, Cairo, 24-30 (May 2001).

The strategy of playing democratic forces against Islamist forces has been quite effective as well. On the one side, the governments maintain the fear of radical Islam as a destabilizing force among liberal, reform-minded circles, stressing examples such as the Algerian civil war, the low-level violence in Saudi Arabia, and the successes of Hamas in Gaza. This fear usually prompts the pro-democracy opposition to favour the status quo, i.e., to support the regime, in return for the latter repressing the most radical Islamist movements. The pressure on pro-democracy groups is kept up by Middle Eastern regimes encouraging Islamist organizations to spread their ideas freely, as long as they do not criticize the government, and by portraying the former as anti-Islamic.[68] In other words, for all practical purposes radical Islamists could be treated as an extension of the regime in dealing with the pro-democratic opposition. The absurdity to which regime messages can mix the strategies is evident in a case where the Saudi interior minister, in charge of the counterinsurgency campaign, told his staff that "al-Qaeda was a Western front group, part of the overall effort to sabotage Saudi Arabia, of which liberalization was another tactic."[69]

Finally, Middle East regimes deal with the democracy challenge by pretending to make reforms. Organizations that seem committed to civil society and human rights, such as the High Council for Women in Bahrain, a human rights association in Saudi Arabia, and the National Council for Human Rights in Egypt have been set up under government control in order to forestall the establishment of similar independent organizations.[70] The drop in the number of votes with which the Yemeni President, Ali Abdullah Salih, was elected in 1999 and 2006, from 96 percent to 77 percent, respectively, and that of Bashar al-Assad in Syria being elected with 97.62 percent of the votes in 2007, while his father was elected with 99.9 percent in 1999, has been promoted as a sign of a move towards democracy.[71] Elections in Lebanon and Jordan, for example, are not representative of the people's views and are instead organized in a manner to convey the views of the elites and to preserve their power. In 2002, a report issued by the Carnegie Endowment for International Peace concluded that the "the idea of instant democratic transformation in the Middle East is a mirage.[72]

In other words, most Middle East regimes have quite effectively managed the opposition forces, fending off both Islamist and democratic challenges quite successfully. At present, only the governments of Lebanon, the West Bank, Yemen, and Iraq are faced with a strong opposition which often turns violent. In the cases of Lebanon and the Palestinian Authority government in the West Bank, the political opposition could, in the near future, gain the upper hand in the struggle for power, i.e., the regimes in these two countries could be characterized as having difficulty in maintaining their power. In Iraq and Yemen, the regimes face considerable challenge from opposition forces but are still able to maintain the balance of power. In the case of Iraq, this is being done, admittedly, with the help of foreign troops. All other Middle East regimes are, at present, in control of the political situation in their countries, i.e., opposition groups does not poses significant threat to their political power.

[68] An example, given by Rubin, is the publication of a statement condemning reformists as anti-Islamic Westernizers, on a Saudi Islamist site that was signed by a number of government officials—Rubin, "Pushback or Progress?" 6.

[69] Ibid.

[70] Ibid., 7-8.

[71] Ibid., 8.

[72] Marina Ottaway, Thomas Carothers, Daniel Brumberg, and Amy Hawthorne, "Democratic Mirage in the Middle East," Policy Brief No. 20 (Washington, D.C.: Carnegie Endowment for International Peace, October 2002).

7.0 INSTABILITY AND REGIME CHANGE IN THE MIDDLE EAST: A RISK ASSESSMENT

7.1 Risk of Radicalization

The combination of popular support for Islamic law (as a basis for state legislation) and anti-western/anti-US feelings represent an indicator for the popularity of the Islamist cause among the youth (because both factors are a fundamental part of the Islamist doctrine). For example, in a 2006 Gallup poll of ten Muslim countries, Egyptians and Jordanians gave support to Sharia law or to legislation including aspects of Sharia law in a proportion 91 and 93 percent respectively, more than the citizens of any of the other countries polled.[73] In a 2002 Gallup poll, 53 percent of Middle East respondents had an unfavourable opinion of the United States, while 90 percent disapproved of US policies directed Arab nations and the Palestinians. In the same poll, the belief that Western nations are fair in their policies towards Arab/Muslim countries ranged from the dismal low of 1 percent (in Kuwait) to a maximum of 13 percent (in Saudi Arabia).[74] By 2005, the critical view of the US had increased further—from 64 percent to 79 percent in Saudi Arabia and from 62 percent to 65 percent in Jordan, both of which are, notably, key allies of Washington in the Middle East.[75] The level of radicalization among young Lebanese Shiites, who are believed to represent a larger youth cohort, compared to that in the other Lebanese ethnic groups, and who are in a worse economic situation than their Sunni and Christian counterparts, is reflected in the fact that 92 percent among the Shia community hold a negative view of the United States, compared to 47 percent among the Sunni Lebanese.[76]

Surprisingly, Iran, the only Middle Eastern country where Islamism has risen to the status of state ideology, appears to be an exception to the trend of supporting Islamic law and expressing anti-Western feelings. In the 2006 Gallup poll, support for Sharia law in Iran stood at 79 percent, which was lower than the other Middle East countries with a predominantly Muslim population included in the survey.[77] It was also the only Muslim country in the poll where American disapproval ratings in the period 2002-2005 have decreased—from 63 percent to 52 percent.[78] The explanation according to Fuller is that, in the case of Iran, we have a situation where the young generation has rejected Islamism "as being no more that the control device of a highly conservative entrenched elite," and that Iran's "anti-American revolution has in effect largely purged itself of its anger at the US at the popular level while the quest of the revolution for true self-determination independent of American power has largely been fulfilled."[79] This conclusion is quite significant as it seems to indicate that Islamic radicalism is a temporal phenomenon and once it becomes established at state level, as in the case of Arab nationalism and Arab socialism in the 1950s and the 1960s, it becomes a conservative force trying to preserve the existing status quo. As a consequence, Islamism then becomes, as the Iranian case would seem to indicate, vulnerable to criticism and discontent from the younger generations that are raised after its proponents came to power.

Since data for all Middle East countries regarding the two indicators—support for Islamic law and anti-American feelings—is not available at the present time, I cannot evaluate the risk of radicalization for each

[73] Dalia Mogahed, "Islam and Democracy," *Gallup World Poll*: *Muslim World*¸ 2006.

[74] Cited in Fuller, "The Youth Factor," 25.

[75] Dalia Mogahed, "Muslims and Americans: The Way Forward," *Gallup World Poll*: *Muslim World*¸ 2006.

[76] Andrew Kohut, Richard Wike, "All the World's at Stage," *The National Interest*, Issue 95, May-June 2008, 60.

[77] Lebanon, as a country with a substantial non-Muslim population, was below Iran with 65 percent support for Sharia law, Dalia Mogahed, "Islam and Democracy," 2.

[78] Dalia Mogahed, "Islam and Democracy," and ibid., "Muslims and Americans: The Way Forward."

[79] Fuller, "The Youth Factor," 23.

Middle East country. Instead, I provide a scenario-based assessment framework at Table 4 that can be used as data becomes available. In the different scenarios, the risk of radicalization is assessed as a correlation between the ratio of young adults to all working age adults (YA/WA), support for Islamic law, and the level of anti-American/Western feelings in society.

Table 4: Radicalization Scenarios

15-29 olds to 15-65 olds (YA/WA) ratio			Support for Islamic Law		Level of Anti-American Feelings		Risk of Radicalization
>50%	40-50%	<40%	Higher	Lower	Higher	Lower	
X			X		X		Very High
X				X	X		High
X			X			X	High
	X		X		X		High
	X		X			X	Medium
		X	X		X		Medium
X				X		X	Low
	X			X	X		Low
		X	X			X	Low
	X			X		X	Very low
		X		X	X		Very low
		X		X		X	None

7.2 Risk of Political Violence

It was established earlier that the availability of employment opportunities is one of the most important factors for determining whether the youth bulge will have a positive or negative impact on the stability of the Middle Eastern countries. I argue, therefore, that the ratio of young adults (YA), i.e., 15 to 29-year olds, to that of all working age adults (WA), i.e., 15 to 65-year olds, represents a greater demographic stress factor than the ratio of 15 to 29-year olds to all adults, as used by TSD.[80] In countries which have a large ratio of the first group to the second, the competition for jobs and resources is anticipated to be greater and thus more likely to result in political violence and instability.

Following the risk levels established by TSD, the countries with a ratio of more than 50 percent are considered to experience an extreme stress on their political system. In countries, where the ratio is between 40 and 50 percent, the level of stress is still high. In countries with a ratio between 30 and 40 percent, the level of stress is regarded as medium, and finally, in countries with a ratio below 30 percent the demographic stress is regarded as low.[81] If we consider the distribution of Middle East countries according to this stress factor (Table 5), the most likely to experience domestic political violence are Yemen, Syria, the Palestinian territories, Iran, Iraq and Oman. Israel, Kuwait, Bahrain and Qatar, on the other hand, are the least likely to experience political violence as a result of demographic pressure.

[80] See also Elena McGovern, "Demography and Democracy in the Middle East" (Washington, D.C.: The Henry L. Stimson Center, February, 2007).

[81] TSD, 48.

Table 5: Youth Cohort's Stress Level on the Region's Political Systems

Country	YA/WA Ratio	Stress on the political system
Yemen	56%	Extreme
Syria	54%	Extreme
PA Territories	52%	Extreme
Iran	52%	Extreme
Iraq	50%	Extreme
Oman	50%	Extreme
Jordan	49%	High
Egypt	47%	High
Saudi Arabia	45%	High
Lebanon	41%	High
UAE	41%	High
Israel	39%	Medium
Kuwait	38%	Medium
Bahrain	37%	Medium
Qatar	33%	Medium
Regional average	45.6%	High

Finding Iraq, the Palestinian territories and Yemen among the countries experiencing an extreme stress on their political system is indeed a reflection of their current situations. However, the presence of Iran, Syria and Oman on this list, which are countries with a stable political situation at the moment, and the absence of Lebanon, which has experienced frequent political disturbances in the last few years, indicates that the YA/WA ratio alone is insufficient in assessing the risk of political instability. As suggested in the methodology section, we can determine the likelihood of youth participation in political violence with a greater probability, if the YA/WA ratio is correlated with other sources of demographic stress that may influence their predisposition to violence.

As established earlier, the greatest impact on the volatility of the "15-29 group" would most likely include economic factors such as income levels and unemployment rates. Unfortunately, no such data is available on a consistent basis for all of the countries under consideration. As a substitute, this analysis will use the Gross Domestic Product at purchasing power parity (GDP, PPP) per capita and the overall unemployment rate. These sources can still serve as useful indicators for the country's general standard of living and competition for jobs, and information is available for all Middle East countries. I propose the following stress levels for each factor: GDP per capita below $5,000 and unemployment rate above 30 percent as an extreme stress level, GDP per capita from $5,000 to $10,000, and unemployment rate from 20 to 30 percent as a high stress, GDP per capita between $10,000 and 20,000, and unemployment rate between 10 percent and less than 20 percent as a medium stress level, and finally, GDP per capita more than $20,000 and unemployment rate less than 10 percent as an low stress level.

In addition to the three demographic stress factors, I also take into consideration the ethnic/sectarian tensions in each country. Since these are difficult to quantify, the rating of extreme, high, medium or low level is based on the most visible expression of tensions, such as sectarian/ethnic violence. In 2007 (to be consistent with the other data utilized in this study) sectarianism has been putting an extreme or a high level of stress on the

political systems in Iraq, Lebanon, Yemen and the Palestinian territories.[82] In the other Middle Eastern countries with ethnic/sectarian minorities the stress on the political system is, arguably, at a much lower level.

The risk of political violence is thus assessed on the basis of the demographic stress levels of the three factors—"YA/WA ratio," "GDP per capita," and "unemployment rate,"—combined with ethnic/sectarian tensions. If a country is experiencing the three demographic stress factors at high or extreme levels, or two of them in the presence of ethnic/sectarian tensions at high or extreme levels, there is a very high risk of political violence to occur. If, in addition to a large youth bulge, the country is experiencing one more stress factor without a high level of sectarian/ethnic tension, it is deemed to be at a high level of risk. The presence of a large youth bulge, combined with a high level of ethnic/sectarian tensions is considered to put a country at medium level of risk, and the presence of a large youth bulge only would suggest an elevated level of risk. The risk levels of the individual Middle East countries, based on this framework, are presented in Table 6.

Table 6: Risk of Political Violence

Country[83]	YA/WA ratio	GDP (PPP) per capita[84]	Unemploy-ment rate[85]	Ethnic/ Sectarian tensions	Risk of political violence
Gaza	52%	$1,100[86]	34.7%	Extreme	Very high
Yemen	56%	$2,400	35%	High	Very high
Iraq	50%	$3,600	30%	Extreme	Very high
Lebanon	41%	$10,400	20%	Extreme	Very high
The West Bank	52%	$1,100	18.6%	High	Very high
Syria	54%	$4,300	10%	Low	High
Jordan	49%	$4,700	13.5%	Low	High
Egypt	47%	$5,400	10.1%	Low	High
Saudi Arabia	45%	$20,700	13%	Low	Elevated
Iran	52%	$12,300	13%	Medium	Elevated
Oman	50%	$19,100	15%	Low	Elevated
UAE	41%	$55,200	2.4%	Low	Elevated
Bahrain	37%	$34,700	15%	Low	Low
Israel	39%	$28,800	7.6%	Low	Low
Kuwait	38%	$55,300	2.2%	Low	Low
Qatar	33%	$75,900[87]	0.7%	Low	Low

This assessment closely reflects the security situation in the Middle East, with major violence taking place in Gaza,[88] Iraq, Yemen and Lebanon. Egypt, Syria and Jordan are also among those countries with a high risk of

[82] In the case of the Palestinian territories (West Bank and Gaza), the confrontation is between the Islamist Hamas and the more secular-oriented Fatah groups.

[83] Since there is a significant economic and political division (as they are ruled by different governments) between the two areas of the Palestinian territories, the Gaza Strip and the West Bank, they have been presented separately here. See "West Bank and Gaza: Economic Developments in 2006, a First Assessment" (Washington, D.C.: International Monetary Fund, March 2007).

[84] GDP per capita is based on 2007 data.

[85] Unemployment rates are the official 2007 rates.

[86] This is the combined West Bank and Gaza figure. In all likelihood, the GDP per capita for Gaza alone is lower.

[87] It is worth noting that this is the world's highest GDP per capita.

political violence. In all three of them, together with Saudi Arabia, (which is assessed at an elevated level of risk), radical Islamists pose serious challenges to the current regimes, a situation that may lead to a greater degree of violence. Among countries with a large youth bulge as the only stress factor, namely, Iran, Oman, and UAE, some degree of political turbulence exists in the first country. The political system indeed appears fairly stable in the "low risk countries," that is, Qatar, Bahrain, Kuwait and Israel.

A schematic model for assessing the risk of political violence is presented in Table 7 below. The table offers eight scenarios for the risk of political violence based on the presence of four stress factors: YA/WA ratio above 40 percent, GDP (PPP) per capita of less than $10,000 dollars, unemployment rate greater than 20 percent, and a high level of ethnic/sectarian tensions. Very high level of risk exists when in addition to high YA/WA ratio, at least two of the other three stress factors are present as well. High level of risk exists when a YA/WA ratio of more than 40 percent is combined with one more stress factor. Elevated risk for political violence exists when only a YA/WA ratio of more than 40 percent is present.

Table 7: Political Violence Scenarios

15-29 to 15-65 (YA/WA) ratio >40%	GDP (PPP) per capita <$10,000	Unemployment rate >20%	High Ethnic/ Sectarian tensions	Risk of political violence
X	X	X	X	Very High
X	X	X		Very High
X	X		X	Very High
X		X	X	Very High
X	X			High
X		X		High
X			X	High
X				Elevated

7.3 Probability of Regime Changes and/or Reforms

As argued earlier, the presence of significant youth cohorts, and especially that of the 15 to 29-year old, when combined with poor economic conditions and social tensions, could bring domestic instability and violence. The question is, however, whether the high levels of risk of domestic instability, as a result of the youth bulge, could bring about political changes, such as a regime overthrow, or pressure the regime to introduce democratic reforms. The relation between risk of domestic instability and political change is not, in fact, linear. According to Richard Cincotta, when faced with threats to security and property, elites and ordinary citizens are more willing to relinquish liberal values and rights and would support authoritarianism,[89] i.e., in the case of the Middle East, where most regimes are pseudo-democratic and authoritarian, high levels of risk of instability perpetuates the power of the regimes. A case in point is Iraq, which possessed one of the largest youth cohorts in the region, and was in a dire economic situation, but whose regime until 2003 kept the

[88] Gaza's status as *de facto* a political entity is argued in Anton Minkov, "Expect the Unexpected: Strategic Implications from the Gaza Border Breach," DRDC CORA TM 2008-26 (Ottawa: Defence R&D Canada, Centre for Operational Research and Analysis, April, 2008), 15.

[89] See Richard Cincotta, "How Democracies Grow Up," *Foreign Policy*, March/April, 2008, p. 81. Chincotta surveyed the countries which have achieved a liberal democracy (as defined by the Freedom House) in the last few decades. These full democracies evolved only when the YA/WA ratio dropped in the range between 36 and 42 percent. The 39 percent benchmark is the statistically median point.

domestic situation under firm control. The elimination of the regime by external forces in 2003 removed all checks and balances that prevented the outburst of domestic violence until then and, indeed, unleashed extremely high levels of violence. Iraq is a powerful example to most Middle East citizens of what could happen, if their regimes are overthrown.

Therefore, relying again on the "YA/WA ratio" indicator, the countries with a high potential of political violence, such as Yemen, Syria, the Palestinian territories, Iraq and Iran, are least likely to move towards democratic reforms. According to Cincotta, only when the ratio of young to adult population drops to 39 percent, is there an equal chance of democratic changes.[90] On the other hand, if the percentage of the youth cohort is very high and the risk of domestic violence is high, a revolution seems likely. To assess the potential of this happening, we have to consider the regimes' grip on the opposition forces, i.e., the latter's ability to keep revolutionary/opposition forces under control. In Table 8 below, the risk of regime change is assessed on the YA/WA ratio and the level of power which the regime has over the opposition.[91] The higher the YA/WA ratio and the greater the power of the regime, the less likely is a regime change. The lower the YA/WA ratio, though not below the 39 percent threshold, and the weaker the regime's hold of power, the more likely is the regime's removal from power to occur.[92] In cases where the demographic benchmark is high and the regime is barely able to maintain a balance of power, there is still a high risk for the overthrow of the regime. Where countries that have a YA/WA ratio of 39 percent or very close and their regimes are considered to be in control of the opposition, no change is likely to occur at all. In situations where the countries have a lower than 39 percent ratio of work-age youths to all working-age adults and the governments are also "in control," the possibility of political change again rises but in the positive sense, as the regimes are more likely to implement democratic reforms.

Table 8: Probability of Regime Change

Country[93]	YA/WA Ratio	Regime's position to opposition	Probability of regime change/democratic reforms
Lebanon	41%	In difficulty	Very high
The West Bank	52%	In difficulty	Very high
Iraq	50%	Maintaining balance	High
Yemen	56%	Maintaining balance	High
Jordan	49%	In control	Low
Egypt	47%	In control	Low
Saudi Arabia	45%	In control	Low
UAE	41%	In control	Low
Oman	50%	In control	Very low
Iran	52%	In control	Very low
Gaza	52%	In control	Very low

90 Ibid., 81.

91 Ibid., 18-19.

92 In countries with established democratic traditions, such as Israel, the possibility of political change as a result of demographic pressure and weak government will occur through the election of a new government.

93 Since there is a *de facto* political division between the two areas of the Palestinian territories, the Gaza Strip and the West Bank, they have been presented separately here. Israel is excluded from this table in light of the fact that given the established democratic traditions there, the possibility of political change would occur through the election of a new government.

Syria	54%	In control	Very low
Qatar	33%	In control	Very high
Bahrain	37%	In control	Very high
Kuwait	38%	In control	Very high

In the first scenario, countries where the demographic benchmark is high and the regimes are strong (i.e., the likelihood of regime's overthrow is very low) one finds Syria, the Gaza Strip, Iran and Oman. In the second group, where the demographic measure is lower, but still higher than 39 percent, and the regimes are in control, we have Jordan, Egypt Saudi Arabia, and the UAE. In these countries, there is some possibility of regime change, but because of the regime's strength the likelihood of that is low. In Iraq and Yemen, where the regimes are simply maintaining the balance of power vis-à-vis the other political forces and the youth bulge is very high (above 50 percent), the possibility of political change is high. In the cases of the West Bank and Lebanon, where the youth group is higher than 39 percent and where the governments are struggling against the opposition, the risk of the governments falling is very high. A high probability of political change also exists in Qatar, Bahrain and Kuwait, where the demographic benchmark is below 39 percent and the regimes are in control of the political situation. Indeed, despite the fact that the authority of the royal families in these three countries is not being challenged, there has been a greater "flexibility at the top." In recent years, positive changes, such as fair elections in Qatar, Bahrain and Kuwait, have taken place.[94] The 2007 elections in Qatar, in particular, are cited as very successful. These elections saw a participation rate of 51.1 percent of those eligible to vote, with women taking part as much as men.[95] According to the international observers, law and order was maintained at the polling stations and people actually voted for candidates based on the latter's qualifications, not on kin relations as it used to be in the past.[96]

A schematic model for assessing the probability of regime change/democratic reforms is presented in Table 9. The table presents nine scenarios for the probability of regime change or for a regime to make reforms to the political system in response to internal pressure. Very high and high probabilities of regime change exist when the YA/WA ratio is greater than 50 percent and the regime is in difficulty controlling the opposition forces, or it is barely maintaining the balance of power. YA/WA ratio between 40 and 50 percent, combined with the regime being in difficulty vis-à-vis the opposition, also indicate high probability of regime change. YA/WA ratio between 40 and 50 percent and the regime able to maintain the balance of power, as well as a ratio of less than 40 percent and the regime has difficulty in controlling the opposition, indicate medium probability of regime change. When the YA/WA ratio is above 50 percent, but the regime is in control of the opposition, the probability of regime change is very low. Low probability of regime change also exists when the YA/WA ratio is between 40 and 50 percent, but the regime is in control of the opposition forces. With respect to the probability of a regime to initiate democratic reforms, very high and high chances exist when the YA/WA ratio is below 40 percent and the regime is either in control of the opposition or at least able to maintain the balance of power.

94 Rubin, "Pushback or Progress?" 8.

95 Ibid., 11.

96 "CMC Polls a Huge Success," *MENA Election Guide* (2 April 2007).

Table 9: Regime Change/Reform Scenarios

15-29 to 15-65 ratio			Regime's status			Probability of Regime Change/Reforms
>50%	40-50%	<39%	In control	Maintaining the balance	In difficulty	
X					X	Very High
		X	X			Very High
X				X		High
	X				X	High
		X		X		High
	X			X		Medium
	X		X			Low
		X			X	Low
X			X			Very Low

8.0 CONCLUSION

The Middle East is experiencing significant demographic growth and most countries in the region possess large youth cohorts. For the time being, the regional governments are not going to be able to meet the demand for social infrastructure and employment. If these governments and international organizations are not able to mitigate this situation, the region is likely to face increased radicalization and instability.

The conceptual framework for assessing the impact of demographics on radicalization and instability indicates that the impact is not linear and that it should be correlated with other factors, such as unemployment rates, GDP per capita, and ethnic or sectarian tensions, which put additional pressure on the political system. The presence of three of these demographic stress factors indicates a high level of risk for political violence. The viability of the proposed framework is evident by its placing the high likelihood of political violence in the countries where it is present at the moment—the Gaza Strip, the West Bank, Yemen, Iraq, and Lebanon. The assessment of probabilities for regime changes or democratic reforms as a result of demographic pressure also seems to confirm the situation at present. Currently, most of the Middle East regimes are well entrenched, with the potential for regime change existing only in Lebanon and the West Bank. Chances for implementation of democratic reforms only exist in some of the GCC countries, namely Qatar, Bahrain and Kuwait, because of reduced demographic pressure.

As demographic projections for the Middle East are available, along with economic estimates, the framework I propose can be utilized to assess the risks for instability and political change in the following 5-20 years. The framework can be utilized as a defence policy evaluation tool for the region, and, perhaps, to other regions as well. For example, NATO policy makers could have a better gauge of the likely intensity and duration of civil conflicts in the region, thus determining the regional commands structure, and the level and the nature of long-term commitment required to mitigate the conflicts. The framework can also point to the Middle Eastern countries most likely to take the path of liberal reform and thus perhaps inform the direction of efforts to support democracy in the region.

The reported results, their interpretation, and any opinions expressed therein, remain those of the author and do not represent, or otherwise reflect, any official opinion or position of DND or the Government of Canada.