American University of Beirut
Institute of Financial Economics

Lecture and Working Paper Series No. 1, 2008

# Trapped by Consociationalism: The Case of Lebanon

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# Trapped by Consociationalism: The Case of Lebanon[1]

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## Abstract

Lebanon's consociational democracy, based on sectarian power sharing among its religious communities, has failed to prevent the outbreak of a long lasting civil conflict or periodic political crises. A major reason for this failure is the interaction of religious divisions with outside destabilizing factors. Simulations of a system dynamic model which we develop demonstrate that sectarian based domestic conflict and vulnerability to outside interventions led to tremendous socio-economic losses. Furthermore, Lebanon's sectarian constraints prevented it from achieving a higher polity in the post conflict era that otherwise would have been the case. Transiting from consociationalism to full-fledged democracy would provide the necessary conditions for long-term stability and sustained development.

1 This paper is part of an ongoing research project on democracy, conflict and development in Lebanon at the Institute of Financial Economics, AUB.

## Introduction

Whereas consociationalism in Western countries with significant social divisions might have proven successful in preventing domestic conflict, this has not necessarily been the case in developing countries. Lebanon is a very interesting case of failed consocialism for at least three reasons: First, it is the only country in the Arab World where significant democratic practices have been in place, albeit its sectarian power sharing model is wanting in a number of respects. Second, although consociationalism failed to prevent a long lasting civil war (1975–1990), a modified version of consociationalism was re-adopted when peace was restored without challenging the sectarian nature of the system. Third, conflict erupted despite Lebanon's relatively high per capita income, advanced educational standards, and vibrant business class relative to other developing countries.

Several questions therefore arise: What were the causes of the civil war? What have been its economic and political consequences? In what direction should Lebanon move to ensure long term stability and sustained development?

In approaching these three questions we arrive at the following main conclusions: First, though the interaction of Lebanon's religious divisions with outside influences and interventions was the major cause of the civil war, the post-war settlement left the sectarian consociational system basically unchanged; this has left the country greatly vulnerable to destabilizing outside shocks, marring its democratic practices and disrupting its development. Second, our empirical analysis suggests that Lebanon has paid dearly for its domestic conflict and the intervention of external factors in terms of forgone income, more equality, industrial modernization, and better investment climate. Third, immunizing itself against outside shocks will require Lebanon to embark on a gradual transformation process towards a full-fledged secular democracy.

The rest of the paper is organized as follows: Section II discusses Lebanon's consociational model. A brief review of the causes of Lebanon's conflict follows in Section III. Section IV assesses empirically the socioeconomic and political impacts of Lebanon's domestic conflict in combination with outside external factors. Section V concludes with a summary of our major findings and outlook.

**Lebanon's Consociationalism: A Fragile Political Model**

The basic argument for consociationalism, as opposed to a simple majority rule, is that it prevents the outbreak of open conflict in socially heterogeneous societies (see Lijphart, A., 1984, Andeweg, R., 2000). Moreover, in places where domestic conflicts have arisen, normally in developing countries, restoring lasting peace is more likely within a consociational form of democracy (see Binningsbo, H. M., 2005).

Lebanon is ethnically virtually homogenous. Yet, on the eve of independence in 1943, its population was divided roughly equally between the Christian and Muslim communities, which can be further broken down to 17 recognized religious sects with three principal religious communities: Maronite Christians, Sunni, and Shi'a Muslims. Lebanon was therefore, in theory, a good candidate for adopting the consociational model at the time of independence. The three principal religious communities gained the most in terms of political power with clear advantages being initially accorded to the Maronites. This was to assure them that the political supremacy they enjoyed under the French mandate would not diminish after independence.

Article 95 of Lebanon's 1943 constitution stated that for a temporary but unspecified period, religious sects would be equitably represented in public employment and cabinet posts. The principle of equitable representation was not defined but an unwritten national accord reached among political leaders on the eve of independence specified that the president would be a Maronite, the speaker of the house a Shia, and the prime minister a Sunni. The president appointed the prime minister and cabinet members and could, with the approval of the council of ministers, dissolve the parliament. Under the national accord, Christians enjoyed a 5 to 4 majority in parliament.

In practice, a sectarian formula has been assiduously applied to cabinet posts until today among the six largest religious communities, along with representation

of the Armenian community. Other officially recognized minor communities have not always been represented depending upon the size of the designated cabinet. An overall balance between Christian and Muslims in the cabinet has been maintained throughout. But under the agreed sectarian power sharing formula, individual citizens, by virtue of belonging to different religious communities, enjoyed unequal political rights. The discriminatory aspects of the system also pertain to personal status laws that deal with marriage, divorce and inheritance, which fall under the jurisdiction of the official bodies of the respective religious communities.

The fact that a sectarian balance had to be maintained implied that no single political or religious group, or the army, could impose its hegemony or ideology on the society. With the exception of the civil war period, this helped foster civil rights and a level of democratic practices including periodic parliamentary elections. Nonetheless, Lebanon's democracy suffered from a number of shortcomings related to sectarianism, external interventions and discriminatory practices among others (see Makdisi, Kiwan and Marktanner, 2007). According to the authors of the Polity IV dataset, Lebanon's polity score prior to the outbreak of the civil war would classify it as a partial democracy (Polity IV manual). The dictum of the delicate sectarian balance led to the emergence of a weak state that failed to implement effective political and administrative programs. For example, serious social policy reforms that were initiated by President Fouad Chehab in 1958–59 to promote improved public sector performance and greater equality failed to take roots exactly because of opposition by entrenched politico-sectarian special interests that feared redistributive reforms.

Provoked by the fall of the pro-Western monarchy in Iraq in 1958 and the unification of Egypt and Syria as the United Arab Republic a limited civil conflict broke out between pro- and anti-Western factions in Lebanon. Its settlement resulted in President Chehab assuming the presidency as a compromise candidate. Although minor, this conflict already demonstrated the country's vulnerability to

outside events. Yet the most crucial moment was clearly the 1967 war between Israel, Syria, Egypt, and Jordan that led to an influx of Palestinian refugees. The 1967 war and the Palestinian problem created a political and economic shock that Lebanon, with its religious divisions, could not absorb or accommodate peacefully and eventually paved the way for the outbreak of the civil war in 1975 (see section III below).

The war was formally settled by the Taif Accord in 1989, named after the Saudi city of Taif where, following diplomatic efforts by Saudi Arabia and Western powers, it was brokered. The Accord led to a more balanced sectarian formula of power sharing, a long standing demand of the pre-war years. For example, it established parity in parliamentary representation between the Christian and Muslim communities. Neither major domestic political actors nor outside parties concerned with the Lebanese conflict, some of them being allies or sponsors of particular religious groups, advocated that Lebanon was ready to undertake more radical political reforms towards a full fledged democracy. Interestingly though, the Taif Accord included a provision that allowed for the establishment of a national body that would look into the elimination of the confessional nature of the system. However, until today, this body has not been even established, leaving the country hostage to sectarian strangleholds. As a result, while the Taif Accord led to a settlement of the civil war, Lebanon still did not tackle the major problems of the sectarian system with its inherent negative impact on economic and social development.

Significantly, the Taif Accord also allowed for the temporary stationing of Syrian troops in Lebanon to help re-establish order. In practice they stayed until April 2005 when, following the assassination of former Prime Minister Rafic Hariri on February 14, they were forced to withdraw under Western pressure and repeated street demonstrations. Until then it was Syria's political interests that dictated how the domestic politico-sectarian balance was to be maintained and how simmering political differences were to be resolved irrespective of whether or not their resolution was in accord with the provisions of the Taif Agreement.

After the withdrawal of Syrian troops, the country slid into a deep national political crisis with two major opposing political camps vying for power. Each camp is again supported by foreign powers that seek to promote their own regional political agenda (for a review of this crisis see Makdisi, S., 2007). The crisis intensified especially after the Israeli onslaught of summer 2006 that followed the capture of two Israeli soldiers by Hizbollah in a cross border raid. In addition to the loss of human lives and damage to its economic base, Lebanon sank further in the quagmire of regional and international political rivalries.

As of this writing the political crisis has not been resolved. But even if it were resolved, either domestically or under outside pressure and interventions, it would not amount to more than a temporary political accommodation. As long as the present sectarian model is in place, the question of the long-term viability of Lebanon's political system remains to be addressed, especially that destabilizing external threats may always re-emerge. The resolution of Lebanon's precarious political system, as we argue, would call for transiting from the present consociational sectarian model to a full fledged secular democracy.

**Causes of the Conflict in Lebanon: A Brief Review**

Lebanon is home to a substantial part of the factors that dominate the literature on the causes of civil conflict. This literature focuses mainly on the concepts of greed, often associated with the exploitation of natural resource wealth, and grievance, generally the result of poverty, and/or political, economic and social inequities (see Collier P. and Hoefler A., 2004; Collier, P. and Sambanis, N., 2005; Berdal, M. and Malone D. M., 2000; Arnson C. J. and Zartman I.W., 2005; UNCTAD, 2004). The interaction of social, ethnic and sectarian heterogeneity with economic factors incorporates a particularly strong conflict risk (Keen, D., 2000; Sambanis, 2000; and Reynal-Querol, M. 2002). The complexity of the causes of civil conflicts, however, is not limited to greed and grievance and their interaction with social factors. External intervention is another important cause of conflict as well as its duration (Elbadawi I. and N. Sambanis N., 2000).

Prevailing socio-economic inequities notwithstanding, economic factors did not play a decisive role in the onset of the Lebanese civil war. This was mainly due to the fact that pre-war Lebanon had a vibrant merchant class, per capita income was comparatively high, the economy grew at six to seven percent annually, and employment opportunities were expanding. Such conditions tended to weaken the economic causes for civil conflict and countered potential social discord associated with prevailing socio-economic inequities.

These inequities related in particular to uneven development among various regions of the country. Rural regions with Shi'a dominance were generally the poorest. Regional economic disparities in income distribution led to migration from rural to urban centers and to an unchecked and rapid growth of poor suburbs around major cities, but Beirut in particular. The overlapping of economic inequality with sectarian divisions had political consequences. For example, in 1974 the religious leader of the Shi'a community, Imam Musa al Sadr, launched a political movement, "Amal", as a political and economic thrust intended to enhance the position of the Shi'a community in the Lebanese sectarian system. A second goal of Amal was to act as a countervailing force to the growing influence of Palestinian organizations in South Lebanon. Amal presented itself as a "movement of the dispossessed," and its appeal was to a large extent based on the lagging socio-economic conditions of the Shi'a community in comparison with other communities in Lebanon. It was to develop, especially after 1982, into one of the major warring factions in the Lebanese civil war.

However, despite their importance, prevailing inequities played, for the reasons noted above, only a secondary role in the onset of the war. Rather, the primary causes of the war were related to domestic political grievance, which were simultaneously fed and exploited by external powers in pursuit of their own regional agendas. It is this interaction of internal and external factors that mainly led to the explosion of the civil war in 1975 (see Makdisi, 2004-chapter 2.)

Domestically, there always have been political calls by Muslim political leaders for a more equal power sharing between the Christian and Muslim communities. Such calls carried with them a potential shift of economic benefits in favor of the

Muslim community, including greater access to public sector employment as well as opportunities to participate in or control private economic enterprises. The Maronite establishment, though, tended to resist such calls, fearing the political implications of even a limited loss of constitutional power.

The external factors, which placed increasing strains on the Lebanese political system, were related to the rising military power of resident Palestinian political and military organizations, particularly after the 1967 Arab-Israeli war. While their activity was ostensibly directed at keeping the Palestinian cause alive, these organizations' presence became intricately linked to Lebanese domestic political affairs. The domestic and regional political agendas could hardly be separated. The prevailing weaknesses of the sectarian system were exploited by Palestinian organizations to enhance their political and military positions. For this purpose, they forged alliances with disenchanted Lebanese sectarian (Muslim) and non-sectarian (leftist and nationalist ) political parties, which regarded such an alliance as a means to pressure the Maronite political establishment to accept political reforms. Domestic political tensions and regional turmoil, not surprisingly, then invited external interventions, most notably by Syria and Israel with their own respective regional political agendas and domestic and foreign third-party alliances. Thus Lebanon became greatly vulnerable to outside destabilizing influences which, as we demonstrate in the following section, had considerable negative effects on its development and polity.

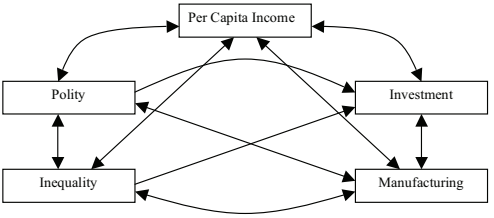
## Domestic Conflict and External Factors: Empirical Assessment

### *The Model: Data and Sources*

We develop a system-dynamic model to simulate the costs of Lebanon's exposure to domestic conflict and negative external factors or, in short, outside intervention vulnerability. The model, graphically illustrated by Figure 1, consists of five key socio-economic and political components. They are:

- Per capita income
- Polity
- Income Inequality
- Manufacturing export capacity
- Investment activity

**Figure 1** A Simple Model of Socioeconomic and Political Development




In the model specification, we are interested in linking the developmental consequences of the following Lebanon-specific aspects to the model:

- Effects of sectarian/religious divisions (Muslim-Christian Polarization, MCP)
- Political neighborhood effects (Regional Polity, REGPOL)
- Regional oil (REGOIL)
- The Arab-Israeli conflict (Regional Refugee Density, REGREFDENS)
- Civil War (WAR)
- Outside-Intervention Vulnerability (an interaction term of MCP and REGPOL).

In order to approach this task, we built a dataset consisting of the following variables from the following sources. Appendix Table 1 lists the data and sources. The panel dataset consists of all countries in the world for which data was available. Nine observations are taken for each country, eight consecutive five-year averages

beginning with the 1961–1965 period and ending with the one of 1996-2000 as well as the four-year average of the 2001–2004 period.

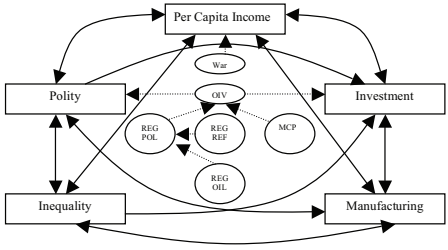
### *Model Specification*

In order to integrate the specifics of Lebanon into the basic model of Figure 1, we need to identify political-economically plausible hypotheses regarding their best entry points. The Spearman rank correlation matrix of Appendix Table 2 provides statistical support for this process.

The following specifications, visualized in Figure 2, seem to be plausible from a political-economic and statistical perspective:

- The variable war enters the model directly best through the income variable. From there it affects all other variables indirectly.
- The Muslim-Christian Polarization is outside-interventionism's entry door. We argue that the Outside Intervention Vulnerability indicator is most meaningfully entered into the model through the investment and polity variable. Individually, OIV has the strongest correlation with polity and MCP with investment.
- Finally, we link regional refugee densities and regional oil to regional polity.

**Figure 2** A Simple Model of Socioeconomic Development with Exogenous Shocks




In the model we do not link explicitly the outside intervention vulnerability variable to the occurrence of war, which is obviously an important factor in

Lebanon's case. If we linked the outside-intervention vulnerability to the occurrence of war, we would need to specify an additional dummy dependent equation. Yet, this would unnecessarily complicate the model, because our focus is on estimating foregone development potentials associated with war, not the likelihood of its occurrence.

The equations underlying the model of Figure 2 are:

$$INCOME_i = \beta_0+\beta_1 POL_{i-1}+\beta_2 INV_{i-1}+\beta_3 INEQ_{i-1}+\beta_4 MANU_{i-1}+\beta_5 WAR_i+e_1 \quad (1)$$

$$POLITY_i = \beta_6+\beta_7 INC_{i-1}+\beta_8 INEQ_{i-1}+\beta_9 MANU_{i-1}+\beta_{10} OIV_i+\varepsilon_2 \quad (2)$$

$$INEQUALITY_i = \beta_{11}+\beta_{12} INC_{i-1}+\beta_{13} POL_{i-1}+\beta_{14} MANU_i+\varepsilon_3 \quad (3)$$

$$MANUFACTURING_i = \beta_{15}+\beta_{16} INC_{i-1}+\beta_{17} INEQ_{i-1}+\beta_{18} INV_{i-1}+e_4 \quad (4)$$

$$INVESTMENT_i = \beta_{19}+\beta_{20} INC_{i-1}+\beta_{21} INEQ_{i-1}+\beta_{22} POL_{i-1}+\beta_{23} MANU_{i-1}+\beta_{23} OIV_i+\varepsilon_5 \quad (5)$$

$$REGPOL_i = \beta_{24}+\beta_{25} REGOIL_i+\beta_{26} REGREF_i+\varepsilon_6 \quad (6)$$

$$OIV_i = \beta_{27}+\beta_{28} MCP_i+\beta_{29} REGPOL_i+\varepsilon_7 \quad (7)$$

The index i stands for the unit of observation and the subscript "-1" for lagged variables, which are used to mitigate simultaneity biases. The main model itself (Figure 1) is estimated as double-log regressions in order to obtain elasticities. The shock variables enter the equations non-transformed, letting the corresponding coefficients become semi elasticities. Semi-elasticities measure the percentage change of a dependent variable to a unit-change (as opposed to a percentage change) of an independent variable. This specification is more intuitive for our simulation purposes, in which we are interested in questions such as: "How much higher is income growth if the share of fuel exports to GDP is reduced by 12 percentage points from 15% to 3%.

For the estimation of equations (1) to (7) we use Hintze's (2001) default robust regression procedure, which is an iterative weighted least square procedure that minimizes distortions associated with non-normality. Appendix Table 3 reports the regression results that we use to program the model of Figure 2. We programmed the model of Figure 2 together with the estimation results of Table 3 with Vensim PLE in order to calculate all response elasticities and semi-elasticities. The results are summarized in Appendix Tables 4a and 4b.

***Simulation Setup***

We approach next the question of the socioeconomic development impacts that can be attributed to Lebanon's civil war between 1975 and 1990 and Lebanon's outside-intervention vulnerability as channeled through regional polity, which in turn is a function of the Arab-Israeli conflict and regional oil.

For this purpose we set up a simulation model fed with the elasticities and semi-elasticities presented in Tables 4a and 4b. We also need to define starting values. The starting values for Lebanon are shown in Appendix Table 5. For comparative purposes, Table 5 also lists population-weighted averages for other regions. This comparison shows the uniqueness of Lebanon especially with respect to the Muslim-Christian polarization, which is with value of 90 clearly above the regional and world average. Moreover, the Middle East and North Africa, which is Lebanon's major geographical gravity field, performs qualitatively worse than the world average with respect to income, polity, inequality, investment activity, and manufacturing export capacity. The region's reliance on oil rents and exposure to regional conflict as proxied by regional refugee densities are also unmatched.

In order to simulate the various effects, we define first a base model that lets initial income grow at three percent from 1970 until 2005, which is always the final year of all simulations. Income growth's effects on the other variables are the response elasticities reported in Table 3a. Since we know all response elasticities of one variable on all the other, we only need to define how much income growth changes if one of the exogenous parameter changes.

Except for the civil war simulation, we define the exogenous parameter change always through the difference to the world average. For example, assume fuel export shares in the Arab world are 12 percentage points higher than the world average (Oil Run). Then, from Table 3b we know that a 12 percentage point reduction in regional oil rents would trigger 1.2 percent higher income growth (12 x 0.1 = 1.2%). This 1.2% higher income growth will then be added to the base growth rate of 3%. Similarly, regarding regional refugee densities, which we use as a proxy for prevailing regional conflicts, we know that the Arab-Israeli conflict accounts for roughly 4,000 (40 x 100) more refugees per 100,000 than other regional conflicts. The Arab-Israeli conflict therefore accounts for roughly 1.6% (40 x 0.04) foregone income growth (AIC Run). We also combine the Oil and AIC Run into a combined total outside vulnerability run (TOV Run). Lastly, we model the civil war with the base growth rate of three percent between 1970 and 1975, minus five percent during the civil war, and plus seven percent for the post-civil war recovery period. These numbers generate roughly the actual income values at the end of the civil war and today and can therefore be used as the benchmark scenario for comparative purposes. Appendix Table 6 summarizes the simulation settings.

### *Simulation Results*

In short, the simulation results suggest that Lebanon's outside intervention vulnerability between 1970 and 2005 accounts by 2005 for roughly $23,500 in foregone income (constant 2000 USD). This foregone income is furthermore associated whit 0.9 foregone index points of the polity score, 5.6 index points less on the inequality figure, 5.7 percent more investment activity of GDP, and 6.6 percentage points of manufacturing exports as a percent of GDP. Appendix Table 7 summarizes the various simulation runs both graphically and numerically.

## Conclusions: Towards Secular Democracy

Perhaps the most beneficial outcome of the Lebanon's conscociational democracy is that it allowed for levels of freedom and civil rights that placed Lebanon well

above other Arab countries on the democracy scale. Nonetheless, the Lebanese experience demonstrates that neither consociationalism nor relatively high per capita income and rapid economic growth are sufficient guarantees against the onset of domestic conflicts in developing countries with significant social or religious divisions. This is especially the case when such countries are vulnerable to destabilizing or negative regional influences from ongoing conflicts and non-democratic neighboring regimes. Under such conditions consociationalism may serve a useful purpose, but only as a temporary political arrangement towards a more viable political system.

In the Lebanese case our simulations demonstrate that the civil war led to tremendous economic losses and consequently lower developmental levels, along with increased inequality, and lower polity levels in the post conflict era than would otherwise have prevailed. But even without a civil war Lebanon still pays a high price in terms of forgone socio-economic development due to its external vulnerability. Economic loss, in terms of forgone production, is a predictable outcome of civil conflict and exposure to destabilizing external influences that affect investment negatively. As for polity its simulated level of 4.1 for 2005 is very close to what prevailed in the immediate pre-conflict years but not any higher due to the fact that the sectarian system has been kept in place in addition to Lebanon's continued exposure to outside adverse influences.

As vulnerability to destabilizing external interventions has been one of Lebanon's major weaknesses, it follows that the objectives of any political reform must be to strengthen its ability to shield itself from the combined influences of religious divisions and external interventions. In our view the move towards a secular competitive democracy appears to provide the most appropriate conditions for a stable political system and sustained development. For one thing it strengthens Lebanon's immunity against domestic conflicts induced by sectarian motives helping shield the country from destabilizing external influences that have fed on Lebanon's religious divisions. For another a secular democracy will promote accountable political institutions and hence better governance and development including better redistributive policies.

Lebanon, however, is not yet ready to adopt a completely secular system. What is called for is the initiation of a transitional phase of reforms that would eventually lead to the adoption of a full-fledged secular democracy. This process entails a number of national issues that would need to be resolved, especially as they concern personal status laws, electoral reforms, and deconfessionalization of political and public institutions (see Makdisi, Kiwan and Marktanner 2007). In parallel, political commitments leading to a more equitable society would lend support to the envisaged political reform.

# Appendix

**Table A.1** Data and Sources

| Variable | Description | Source |
|---|---|---|
| **Per Capita Income** | Per capita income in 2000 USD | 2005 World Bank Development Indicator Database (WDI). |
| **Polity** | Polity 2 Score | Gurr, Marshall, and Jaggers (2007), Polity IV Dataset. |
| **Inequality** | Estimated Household Income Inequality Indicator. Reads like Gini-coefficient. Missing values were estimated using ARIMA (1, 1, and 1) forecasting. | University of Texas Income Inequality Data Project (UTIP). In our view the most comprehensive and methodologically consistent dataset available. |
| **Manufacturing** | Manufacturing exports as a percentage of GDP (rather than merchandise exports) | Calculated from WDI data. |
| **Investment** | Gross capital formation as a percentage of GDP without aid. | Calculated from the WDI data |
| **Regional Oil** | Population-weighted fuel exports as a percentage of GDP (rather than merchandise exports). | Calculated from the WDI data. Regions correspond to World Bank classifications (Middle East and North Africa, Latin America and Caribbean, Sub-Saharan Africa, South Asia, and North America.) Only Europe and Central Asia has been separated into Western Europe and Eastern European transitional countries. |
| **Regional Polity** | Population-weighted fuel exports as a percentage of GDP (rather than merchandise exports). | |
| **Muslim-Christian Polarization (MCP)** | Likelihood of obtaining a Muslim and a Christian in two random drawings from population, indexed between zero and one. Assumed to be constant. | Calculated using data from the World Christian Encyclopedia. |
| **Arab-Israeli Conflict** | We capture the uniqueness of the Arab-Israeli conflict by Palestinian refugee density per 100,000 (compared to other regional refugee densities) | WDI for non Palestinian refugees and United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). |
| **War** | Dummy for armed conflict within a country's territory in a given year. | Uppsala Conflict Data Program (UCDP) and International Peace Research Institute, Oslo (PRIO): Armed Conflicts Dataset. |
| **Outside-intervention vulnerability (OIV)** | $\mathrm{MCP} \times \left(1 - \frac{\mathrm{REGPOL} + 10}{20}\right)$<br>Thus, OIV assumes that a polarized society is the more vulnerable to outside intervention, the less democratic the political neighborhood is. | |

**Table 2** Spearman Rank Correlation Matrix

| | INC | POL | INV | INEQ | MANU | MCP | WAR | REG POL | REG OIL | REG REF | OIV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **INC** | 1.00 | 0.36 | 0.27 | -0.49 | 0.30 | -0.21 | -0.20 | 0.31 | -0.29 | 0.00 | -0.36 |
| **POL** | 0.36 | 1.00 | 0.20 | -0.41 | 0.20 | -0.38 | -0.14 | 0.60 | -0.56 | -0.52 | -0.40 |
| **INV** | 0.27 | 0.20 | 1.00 | -0.52 | 0.38 | -0.44 | -0.07 | 0.06 | -0.07 | 0.13 | -0.18 |
| **INEQ** | -0.49 | -0.41 | -0.52 | 1.00 | -0.49 | 0.30 | 0.16 | -0.28 | 0.23 | 0.12 | 0.25 |
| **MANU** | 0.30 | 0.20 | 0.38 | -0.49 | 1.00 | -0.21 | -0.14 | 0.03 | -0.18 | -0.08 | -0.18 |
| **MCP** | -0.21 | -0.38 | -0.44 | 0.30 | -0.21 | 1.00 | 0.12 | -0.28 | 0.27 | 0.14 | 0.92 |
| **WAR** | -0.20 | -0.14 | -0.07 | 0.16 | -0.14 | 0.12 | 1.00 | -0.15 | 0.05 | 0.09 | 0.15 |
| **REGPOL** | 0.31 | 0.60 | 0.06 | -0.28 | 0.03 | -0.28 | -0.15 | 1.00 | -0.64 | -0.67 | -0.45 |
| **REGOIL** | -0.29 | -0.56 | -0.07 | 0.23 | -0.18 | 0.27 | 0.05 | -0.64 | 1.00 | 0.75 | 0.32 |
| **REGREF** | 0.00 | -0.52 | 0.13 | 0.12 | -0.08 | 0.14 | 0.09 | -0.67 | 0.75 | 1.00 | 0.41 |
| **OIV** | -0.24 | -0.51 | -0.40 | 0.37 | -0.21 | 0.92 | 0.15 | -0.48 | 0.42 | 0.33 | 1.00 |

**Table 3** Regression Results

| DV = Income | Coefficient (P-value) |
|---|---|
| Polity$_{-1}$ (Ln) | 0.34 (0.00) |
| Investment$_{-1}$ (Ln) | 0.83 (0.00) |
| Inequality$_{-1}$ (Ln) | -3.34 (0.00) |
| Manu Exp Share$_{-1}$ (Ln) | 0.19 (0.00) |
| War | -0.12 (0.00) |
| Adj. $R^2$ | 66.7 |
| N | 722 |

| DV=Polity | Coefficient (P-value) |
|---|---|
| Income$_{-1}$ (Ln) | 0.04 (0.02) |
| Inequality$_{-1}$ (Ln) | -0.71 (0.00) |
| Manu Exp Share$_{-1}$ (Ln) | 0.06 (0.00) |
| Outside Interv. Vuln. | -0.03 (0.00) |
| | |
| Adj.$R^2$ | 45.1 |
| N | 699 |

| DV = Inequality | Coefficient (P-value) |
|---|---|
| Income$_{-1}$ (Ln) | -0.05 (0.00) |
| Polity$_{-1}$ (Ln) | -0.04 (0.00) |
| Manu Exp Share$_{-1}$ (Ln) | -0.01 (0.00) |
| | |
| Adj. $R^2$ | 45.5 |
| N | 681 |

| DV=Manu Exp. Share | Coefficient (P-value) |
|---|---|
| Income$_{-1}$ (Ln) | 0.24 (0.00) |
| Inequality$_{-1}$ (Ln) | -1.53 (0.00) |
| Investment$_{-1}$ (Ln) | 0.29 (0.00) |
| Polity$_{-1}$ (Ln) | 0.31 (0.00) |
| Adj.$R^2$ | 35.3 |
| N | 416 |

| DV=Investment | Coefficient (P-value) |
|---|---|
| Income-1 (Ln) | 0.12 (0.00) |
| Inequality-1 (Ln) | -0.22 (0.05) |
| Polity-1 (Ln) | -0.04 (0.04) |
| Manu Exp Share-1 (Ln) | 0.02 (0.05) |
| Outside Interv. Vul. | -0.004 (0.00) |
| Adj. $R^2$ | 27.7 |
| N | 681 |

| DV=Regional Polity | Coefficient (P-value) |
|---|---|
| Regional Oil | -0.28 (0.00) |
| Regional Ref.Dens. | -0.001 (0.00) |
| | |
| | |
| | |
| Adj. $R^2$ | 51.9 |
| N | 416 |

| DV=Outside Interv. Vul. | Coefficient (P-value) |
|---|---|
| Muslim-Christian Polariz. | 0.70 (0.00) |
| Regional Polity | -0.19 (0.00) |
| Adj. $R^2$ | 96.8 |
| N | 1,845 |

**Table 4a** Elasticities

| | Response Elasticity to 1% Change in Stimulus Variable | | | | |
|---|---|---|---|---|---|
| Stimulus Variable | Income | Polity | Inequality | Manufactu-ring | Invest-ment |
| Income (+) | 1.35 | 0.11 | -0.07 | 0.52 | 0.18 |
| Polity (+) | 0.53 | 1.07 | -0.07 | 0.58 | 0.04 |
| Inequality (-) | 4.13 | 0.98 | -1.26 | 3.45 | 0.77 |
| Manufacturing (+) | 0.26 | 0.08 | -0.03 | 1.14 | 0.05 |
| Investment (+) | 0.90 | 0.06 | -0.05 | 0.64 | 1.12 |

**Table 4b** Semi Elasticities

| | Response Elasticity to Change in Stimulus Variable | | | | |
|---|---|---|---|---|---|
| Stimulus Variable | Income | Polity | Inequality | Manufacturing | Investment |
| One year of armed conflict | -12 | -1.32 | -0.84 | -6.24 | -2.16 |
| -1 in Outside Intervention Vulnerability | 1.94 | 3.23 | -0.24 | 2.0 | 0.58 |
| + 1 in Regional Polity | 0.37 | 0.61 | -0.05 | 0.38 | 0.11 |
| -1 in Regional Oil | 0.10 | 0.17 | -0.01 | 0.11 | 0.03 |
| -100 Regional Refugee Density | 0.04 | 0.06 | -0.005 | 0.04 | 0.01 |

**Table 5** Descriptive Statistics

| | Inc | POL | INEQ | MANU | INV | REG-POL | REG-OIL | REF-DENS | MCP | OIV |
|---|---|---|---|---|---|---|---|---|---|---|
| **Lebanon 71-75** | 4,000 | 4 | 50 | 4 | 15 | .. | .. | .. | 90 | 79.6 |
| **Lebanon 01-04** | 3,877 | .. | .. | 4 | 15 | .. | .. | 8,698 | 90 | 63.2 |
| **MENA 71-75** | 1,997 | -8 | 45 | 2 | 19 | -8 | 14 | .. | 18 | 16.3 |
| **MENA 01-04** | 2,890 | -4 | 46 | 5 | 23 | -4 | 16 | 4,931 | 17 | 12.5 |
| **Oil 71-75** | 3,032 | -9 | 45 | 0.4 | 25 | .. | .. | .. | 5 | 4.4 |
| **Oil 01-04** | 3,885 | -3.5 | 45 | 2 | 31 | .. | .. | 513 | 7 | 4.9 |
| **Div 71-75** | 715 | -8 | 45 | 3 | 13 | .. | .. | .. | 29 | 25.2 |
| **Div 01-04** | 1,374 | -5 | 46 | 7 | 17 | .. | .. | 10,639 | 28 | 19.4 |
| **EAP 71-75** | 2,100 | -6 | 34 | 6 | 28 | -6 | 4 | .. | 4 | 3.0 |
| **EAP 01-04** | 3,998 | -3 | 36 | 24 | 34 | -3 | 2 | 64 | 4 | 2.8 |
| **Tigers 71-75** | 272 | -7 | 33 | 5 | 27 | .. | .. | .. | 4 | 2.9 |
| **Tigers 01-04** | 1,464 | -4 | 35 | 25 | 36 | .. | .. | 52 | 4 | 2.6 |
| **LAC 71-75** | 3,055 | -4 | 44 | 2 | 22 | -4 | 2 | .. | 1 | 0.8 |
| **LAC 01-04** | 3,937 | 7 | 47 | 9 | 19 | 7 | 3 | 43 | 1 | 0.1 |
| **ECA 71-75** | 1,929 | -6 | 34 | 6 | 19 | -6 | 0 | .. | 12 | 9.7 |
| **ECA 01-04** | 2,196 | 5 | 42 | 17 | 20 | 5 | 8 | 511 | 11 | 2.8 |
| **SSA 71-75** | 667 | -6 | 47 | 2 | 16 | -6 | 8 | .. | 39 | 30.8 |
| **SSA 01-04** | 507 | 2 | 49 | 4 | 7 | 2 | 2 | 558 | 39 | 15.5 |
| **WE 71-75** | 12,416 | 7 | 34 | 12 | 26 | 9 | 1 | .. | 9 | 0.3 |
| **WE 01-04** | 21,800 | 10 | 37 | 22 | 20 | 10 | 1 | 447 | 9 | 0.1 |
| **World 71-75** | 3,953 | -1.0 | 39 | 4 | 22 | .. | 2 | .. | 8 | 5.3 |
| **World 01-04** | 5,344 | 3.0 | 43 | 15 | 23 | .. | 3 | 985 | 9 | 3.7 |

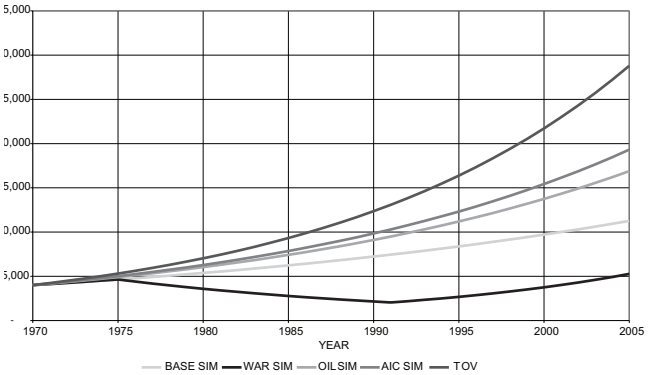
**Table 6** Simulation Settings

| Simulation Run | Target Growth Rate | World Average | MENA Average | Difference | Income Elasticity |
|---|---|---|---|---|---|
| **Base Run** | 3% | - | - | - | - |
| **War Run** | 1970 ≤ t < 1975: +3%<br>1975 ≤ t ≤ 1990: -5%<br>1990< t ≤ 2005: +7% | - | - | - | - |
| **Oil Run** | 1970 ≤ t < 1975: 3% + 1.2% | 2 | 14 | -12 | 0.1 |
| **AIC Run** | 1970 ≤ t < 1975: 3% + 1.6% | 985 | 4,931 | =40 x 100 | 0.04 |
| **TOV Run** | 1970 ≤ t < 1975: 3% + 2.8% | - | - | - | - |

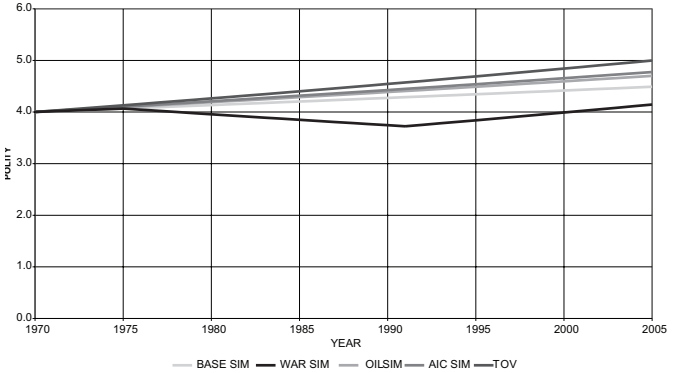
**Table 7** Summary Simulation Results

**Graphical Summary**

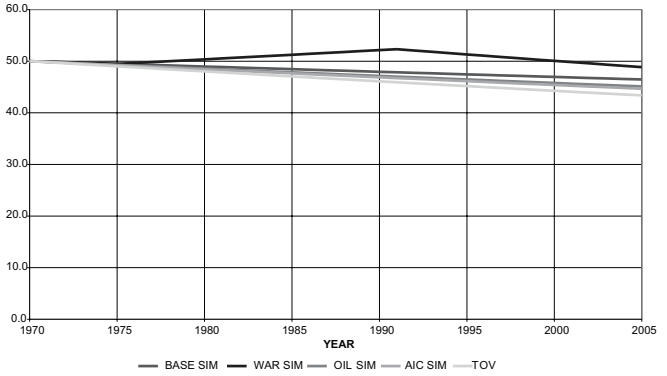
**Income**



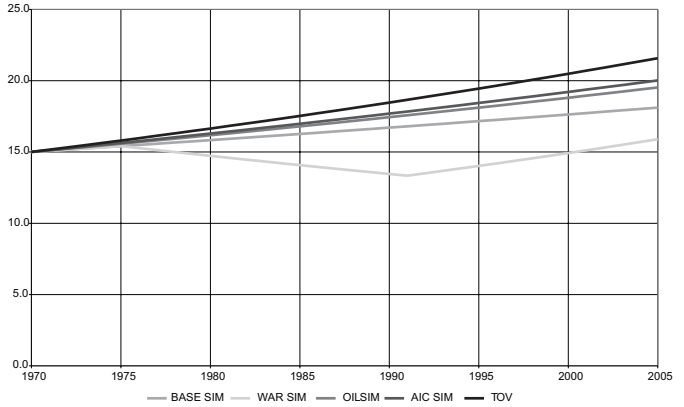

**Polity**



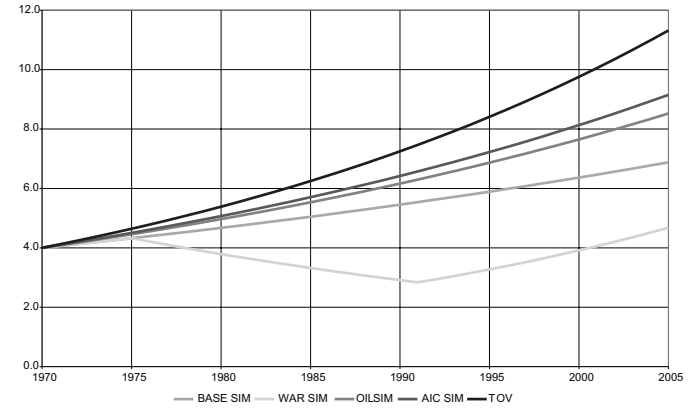
**Inequality**




**Investment**




**Manufacturing**



| Numerical Summary | | | | | |
|---|---|---|---|---|---|
| | **Income** | **Polity** | **Inequality** | **Investment** | **Manufacturing** |
| **Is Value 1970** | 4,000 | 4 | 50 | 15 | 4 |
| **Simulations** | | | | | |
| **War Run 2005** | 5,263 | 4.1 | 49 | 15.9 | 4.7 |
| **Base Run 2005** | 11,255 | 4.5 | 46.5 | 18.1 | 6.9 |
| **Oil Run** | 16,882 | 4.7 | 45.1 | 19.5 | 8.5 |
| **AIC Run** | 19,305 | 4.8 | 44.7 | 20.0 | 9.1 |
| **TOV Run** | 28,778 | 5.0 | 43.4 | 21.6 | 11.3 |
| | | | | | |
| **TOV Run – War Run** | 23,515 | 0.9 | -5.6 | 5.7 | 6.6 |

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