

Triggers of State Failure



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Abstract

This work examines the nature of triggering events culminating in state failure, and analyzes characteristics in an attempt to determine tendencies and linkages between triggering events and types of conflict. Terms like state, state failure, and trigger are defined for use within the project scope. Existing analytical models are summarized to situate the requirement for a comprehensive model accommodating a consideration of triggers. Conclusions and recommendations provide summations of the project findings and identify options for a way ahead.

A more time-sensitive predictive tool for state failure requires incorporation of proximate causes as a precursor to triggering events. This work provides an analysis of the triggers to state failure since 1955 using data from the Political Instability Task Force (PITF), with a specific focus on post-1990 events as a contribution to development of DRDC's predictive model for state failure. This work is not a manual or authoritative guide. It presents an initial analysis of how structural factors, proximate causes and triggering events could be sewn into a single iterative model for the prediction of state instability and state failure and characterization of triggering events. The overwhelming focus is on the latter.

Résumé

Ce document examine la nature des événements qui aboutissent à la défaillance d'un État, et il analyse les caractéristiques de ce processus, afin de déterminer les tendances et les liens entre les événements déclencheurs et les différents types de conflits. Les termes comme « État », « défaillance étatique » et « événement déclencheur » sont définis pour les besoins du projet. Les modèles analytiques existants sont décrits brièvement pour souligner la nécessité d'un modèle plus complet qui tient compte des événements déclencheurs. Les conclusions et les recommandations résument les résultats du projet et indiquent les options en ce qui concerne la voie à suivre.

Un outil plus efficace de prévision de la défaillance d'un État doit tenir compte des causes immédiates qui sont les précurseurs des événements déclencheurs. Ce document contient une analyse des événements déclencheurs qui ont mené à la défaillance de divers États depuis 1955. Il utilise les données du Groupe de travail sur l'instabilité politique (GTIP), et il met l'accent en particulier sur les événements postérieurs à l'année 1990, afin de contribuer au développement par RDCC d'un modèle de prévision de la défaillance d'un État. Ce document n'est pas un manuel ni un guide qui fait autorité. Il présente une analyse initiale des facteurs structurels, des causes immédiates et des événements déclencheurs qui pourraient être incorporés à un modèle itératif unique pour la prévision de l'instabilité et de la défaillance d'un État, et il décrit les événements déclencheurs. Il met surtout l'accent sur les événements déclencheurs.

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Executive summary

Triggers of State Failure:

**Doug Hales; Jordan Miller; DRDC Toronto CR 2008-054; Defence R&D Canada
– Toronto, March 2010.**

This work was completed in support of DRDC Toronto's Adversarial Intent Section's initiative to develop a predictive model for state failure. The model is intended to provide policy staff a predictive tool providing early warning of states that are experiencing instability and urgent warning of states that are in danger of failing. The objectives of this work are, in part, to further familiarity with the cases of state instability from 1955 to 2005 identified in the Political Instability Task Force (PITF) database, and to focus on more recent cases (1990 onward) using additional collateral data. This work made no attempt to keep pace with unfolding events over the term of research. Using these data, a characterization schema is proposed, triggering events are identified and the importance of triggers in precipitating failure examined.

There is a considerable body of knowledge in academia and government on state failure, and it was recognized that an attempt to replicate it would be of marginal value. This work relies on existing data wherever possible. Although there is general consensus, definitions (what is a state? state instability? what is state failure?) tend to vary across models and with approaches to state failure. This work defines clearly its terminology, and how it will be used throughout, and underscores the importance of the timeline in state instability. Conflict and state failure do not spontaneously materialize; it is a process, rooted in the national history and character. The idea of structural factors and proximate causes in creating the conditions under which triggering events can manifest state failure is examined. Existing models are discussed in terms of their applicability to this work, and in an effort to highlight the multitude of purposes models of state failure serve. Each and every model noted has something applicable to this work, although none provide a comprehensive predictive model in their current incarnations.

The emergent DRDC model is introduced to provide context and situation this study i.e. it is one small part of a more ambitious project, The DRDC model itself will remain experimental until structural and proximate data can be used to validate the concept. The model clearly defines early warning and urgent warning and suggests that there is a definable tension threshold a state crosses as it enters warning categories.

A characterization of triggering events follows the description of the experimental model. The research conducted has confirmed that this is the one area of state failure study that has been somewhat neglected. The absence of the same methodological and disciplined approach that has characterized structural factors research, and to a lesser extent proximate causes, is notable. Defining what is meant by a triggering event and how it is characterized was challenging yet critical to understanding what is being studied and why. Triggering events to conflicts since 1990 comprise the focus of the analysis section. Triggers are "coded" in terms of the type of event, and associated with the subsequent type of conflict. In many cases there are strong linkages between the type of triggering event and the type of conflict that results, and in others there is a weak correlation or none at all. This particular area would benefit from extensive additional research. This work provides conclusions of the research thus far and recommendations for future research.

Sommaire

Triggers of State Failure:

Doug Hales; Jordan Miller; DRDC Toronto CR 2008-054; Defence R&D Canada – Toronto, mars 2010.

Ce document a été préparé pour appuyer l'initiative de la section Intention de l'adversaire de RDDC Toronto qui vise à développer un modèle de prévision de la défaillance d'un État. Ce modèle permettra aux responsables des politiques de disposer d'un outil de prévision qui les avertira à l'avance qu'un État s'enfoncé dans l'instabilité, ou qu'il est en danger immédiat de défaillance. Les objectifs de ce document sont notamment les suivants : faire mieux connaître les cas d'instabilité étatique de la période 1955-2005 qui sont identifiés dans la base de données du Groupe de travail sur l'instabilité politique (GTIP), et mettre l'accent sur les cas plus récents (postérieurs à 1990) à l'aide de données collatérales additionnelles. Les auteurs du document n'ont pas essayé de suivre les événements qui étaient en cours pendant leur recherche. Sur la base des données recueillies, un schéma descriptif est proposé, des événements déclencheurs sont identifiés, et l'importance de chacun de ces événements est examinée.

Il y a un corps de connaissances considérable, dans les universités et au gouvernement, sur la défaillance étatique, et les auteurs du document ont reconnu qu'il ne serait pas très utile de reproduire toutes ces informations. Le document s'appuie le plus possible sur les données existantes. Bien qu'il existe un consensus général, les définitions (« État », « instabilité étatique », « défaillance étatique ») varient d'un modèle à l'autre, et selon l'approche adoptée à l'égard de la défaillance étatique. Le document définit clairement les termes clés et la façon dont ils seront utilisés, et il souligne l'importance du facteur temps dans l'instabilité étatique. Les conflits et la défaillance étatique n'apparaissent pas spontanément : ils sont le résultat d'un processus ancré dans l'histoire et le caractère d'une nation. L'idée selon laquelle des facteurs structurels et des causes immédiates sont à l'origine des événements déclencheurs de la défaillance d'un État est examinée. Les modèles existants sont examinés sur la base de leur applicabilité au projet, et pour souligner les multiples usages des modèles de prévision de la défaillance étatique. Chaque modèle évalué a quelque chose qui pourrait être appliqué au projet, mais aucun d'entre eux ne peut être considéré comme un modèle de prévision complet.

Le modèle proposé par RDDC vise à établir le contexte : ce n'est qu'un élément d'un projet plus ambitieux. Le modèle de RDDC demeurera expérimental jusqu'à ce que les données sur les facteurs structurels et les causes immédiates puissent être utilisées pour valider le concept. Le modèle définit clairement ce qui constitue un signe avant-coureur et un signal d'urgence, et il laisse entendre qu'il y a un seuil critique définissable qu'un État franchit lorsqu'il se retrouve en situation d'urgence.

Une description des événements déclencheurs fait suite à la description du modèle expérimental. La recherche a confirmé qu'il s'agit là d'un aspect de l'étude de la défaillance étatique qui a été quelque peu négligé. En effet, il est clair que dans ce domaine, on n'a pas utilisé l'approche méthodique et disciplinée qui a caractérisé la recherche sur les facteurs structurels et, dans une moindre mesure, la recherche sur les causes immédiates. Définir les événements déclencheurs et préciser leurs caractéristiques n'a pas été une tâche facile, mais c'était indispensable pour

comprendre l'objet de l'étude. L'analyse porte essentiellement sur les événements déclencheurs qui ont provoqué des conflits depuis 1990. Les événements déclencheurs sont « codés » selon leur nature et le type de conflit qu'ils engendrent. Dans bien des cas, il y a une relation étroite entre le type d'événement déclencheur et le type de conflit qui en résulte, tandis que dans d'autres cas, la corrélation est faible ou inexistante. Il faudrait poursuivre et approfondir la recherche dans ce domaine particulier. Le document contient des conclusions sur la recherche effectuée jusqu'ici, et des recommandations pour de nouveaux travaux de recherche.

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1 Introduction

Interest in the fragility and stability of states grew significantly in the post Cold War era, stemming in large part from the realization that “failed” states present a safe haven for transnational terrorists and/or armed groups, and organized crime. The international community also recognized the humanitarian challenge posed and cascading consequences related to refugee flows from failing states. It follows that “Canada’s strategy to address the multiple challenges by failed and fragile states must be focused, first and foremost, on preventing state breakdown”.¹

The Adversarial Intent Section (AIS) of Defence Research and Development Canada Toronto has embarked on a project to explore developing a predictive early warning model. The implicit understanding is that improvement in forecasting state failure is linked to an identification of underlying causal factors and increased statistical validity. A predictive early warning model could be used to inform foreign policy formulation, shape preventive/ pre-emptive intervention and consequence mitigation.

Research into and understanding of the causes of state instability has increased considerably in the past two decades. State failure ceased to be viewed exclusively through Cold War and humanitarian prisms as attention focused on exports of refugees, drugs, crime and terrorism. An in-depth analytical study on the factors that correlate to state failure (113 cases between 1955 and 1993) was conducted in 1995.² Using advanced statistical procedures, Esty et al identified three variables - 1) openness to international trade 2) infant mortality rates and 3) level of democracy - as the significant predictors of state failure two years into the future. Postdictive accuracy was about 70%. More recently, the same team³, renamed the Political Instability Task Force (PITF), improved their model’s predictive performance by incorporating the suggestion by King and Zeng⁴ that nuances of regime type be included in the parameterization of the model. Specifically, post-dictive accuracy exceeded 80% by discriminating partial democracies according to the presence or absence of factionalism in political participation.

Notwithstanding methodological points of contention raised by King and Zeng regarding the PITF model, it seems reasonably clear that the underlying/root conditions of state failure are sufficiently well understood to characterize mid to long term state vulnerability. Equally importantly data are now available to support measurement of country development. A State Index is published annually by the Foreign Policy journal. Historical and structural indicator analyses provide insight but are insufficient to provide early warning and, increasingly, are supplemented by events-based collation, field monitoring and expert opinion. These serve to highlight micro-

¹ Department of Foreign Affairs and International Trade. *Canada’s International Policy Statement – Making a Difference Globally: Building a More Secure World*.

<http://geo.international.gc.ca/cip-pic/ips/ips-diplomacy6-en.aspx>

² DC Esty, J Goldstone, TR Gurr, PT Surko, AN Unger (1995), Working Papers: State Failure Task Report, Science Applications International Cooperation, McLean, VA.

³ JA Goldstone, RH Bates, TR Gurr, M Lustik, MG Marshall, J Ulfelder, M Woodward (2005), A Global Forecasting Model of Political Instability, Annual Meeting of the American Political Science Association, Washington DC

⁴ G King, L Zeng (2001), Improving Forecasts of State Failure, *World Politics* 53 (July): 623-58.

level changes and behavioural trends. The resulting appreciation of the dynamics of stability can be used to develop risk assessments. An early warning model must integrate elements of both state vulnerability (structural models) and events monitoring (processual/accelerator models).

There may be an equally important third element if the early warning model is to provide an explicit connection to prevention and inform intervention policy options. Omitted from the discourse (as explicitly acknowledged by many investigators of political instability) is appreciation of the tripwires, or triggering events. These can include assassinations, riots, elections, pandemics, foreign intervention, etc, that precipitate state failure. The root conditions for state instability can be represented as enablers that are necessary, *but insufficient*, to explain state failure. Triggers are those catalytic events which can cause failure if the state is structurally vulnerable, and the right proximate causes accelerate instability. Whether such events can be isolated *a priori* has been and continues to be an open question. There is general agreement that greater understanding of triggers is warranted – “research on failed states is insufficiently advanced for precise tipping points to be provided. It is not yet correct to suggest that if GDP falls by X amount in a single year, if rulers dismiss judges, torture reporters, or abuse the human rights of their subjects by X, if soldiers occupy the state house, or if civilian death rates rise more than X per year, that the state in question will tip for sure from weak to failing to failed. All we know is that the sum of those actions suggests that all is not well in the depths of Ruritania, that misery is spreading, and that the future of the state is in jeopardy.”⁵ The purpose of this project is to identify and characterize trigger events of state failure, and to attempt to deconstruct the events that construct the sum, and draw any tendencies in the data of state instability, focusing on 1990 to 2005.

1.1 Objectives

1.1.1 Overall Project Objectives

DRDC is seeking to develop an Early Warning Model (EWM) of state failure that incorporates structural indicators, event monitoring, and triggers. The objective is to develop a statistical model for tracking state tension and predicting the likelihood of state failure. Such a model would exploit existing data sources. Using this prospective model, current tension levels can be monitored and potential events identified that might elevate tension sufficiently to push a state across a defined threshold (determined through regressive analysis) into instability or failure.

1.1.2 Study Objectives

The objective of this work is to:

- Develop familiarity with all occurrences of state failure between 1955 to present as per the PITF database;

⁵ Rotberg, Robert. *Breakdown, Prevention and Repair*, in When States Fail: Collapse and Consequences. Princeton Press – 2004. Pg 25

- Using third party data, focus specifically on cases of state failure from 1990 onward;
- Identify the trigger events by date and importance of each in precipitating state instability; and
- Identify incidents of trigger events, and cases in which states experienced instability, but did not fail despite the presence of preconditions sufficient to precipitate state failure in other cases.
- Develop a codification/ranking system that considers:
 - The nature of the trigger event;
 - The duration of the crisis;
 - The population affected; and
 - Additional factors that significantly influence the failure or non-failure of a state at risk of failure.⁶

This work does not seek to develop the model but, rather, to provide the trigger component of EWM under development. In short this study seeks to codify triggers, specifically; to characterize:

- the nature of triggers in terms of how they affect the structures of governance; and
- the tendencies for certain types of triggers to occur in states vulnerable to a specific type of conflict.

1.2 Scope

As noted above, the focus of this study is triggers of state instability and state failure. This work does not attempt to re-invent the analysis of structural components of state failure, of current events monitoring or the work of any other group or organization. As directed, the intent was to use the data sets from other groups and organizations to initiate an analysis of triggers in support of a predictive modelling tool. Although the initial Statement of Work (SOW) included a co relational analysis of triggers and state failure, this objective proved too ambitious given time and resource constraints. The initial research foray into the triggers of state failure since 1955 proved a larger task than anticipated, and thus narrowed the focus for this stage of the project.

1.3 Document Structure

This document is structured along the following lines:

- Section 1 provides a brief description of the background, objectives and aims. It attempts to situate the study.

⁶Call-Up under JCDS 21 Standing Offer - W7701-054996/001/QCL: DRDC Toronto Contract # 8112

- Section 2 proposes a lexicon. The terminology used with respect to state instability and failure can be vague and confusing, and applied to suit an author's meaning or intentions. This section is dedicated to defining what is meant by the terms 'state instability' and 'triggers', and the different stages of warning.
- Section 3 discusses the PITF framework, specifically the different types of conflict and how, in this context, triggers can be characterized as statements of state power. A triggering event can be the central government's affirmation of its power, prompting a response from an element of society. Triggering events are not necessarily government action, and can be a segment of society taking proactive action to remedy a perceived injustice perpetrated upon it.
- Section 4 describes the DRDC Conceptual Model, and the definitions inherent to it.
- Section 5 provides a characterization of triggering events.
- Section 6 provides an analysis of triggering events, to highlight similarities, differences and trends.
- Section 7 is used to summarize observations, provide concluding remarks and offer recommendations on a Way Ahead.

2 Definitions

One of the first challenges involves overcoming the proliferation of definitions and establishing a coherent taxonomy. This section is important to establish, given the circular nature of some state failure arguments. States fail because they are unstable, rather than the reverse; it is important to note for this work and the EWM that states are treated agnostically with the assumption the events, influenced by context and history, shape the stability. There are no bad states ‘that are just going to fail’.

2.1 State

Statehood is an abstract and powerful concept with sociological overtones. The modern state integrates a network of authoritative institutions that make and enforce the highest level decisions throughout a defined territory. It “is a manifestation of political power that has been progressively depersonalized, formalized and rationalized”⁷. This includes elements of a right to broker policy (legitimacy) and capacity to administer implementation/maintain social order (capacity).

As a number of commentators have observed states should not be equated to nations, or state building to nation building. Kurdistan, for example, knows not boundaries as a state, but represents in the eyes of the Kurds a nation, in terms of a common language, culture and history. The same applies to many countries in Post-Colonial Africa, Palestine, Jammu & Kashmir in India and Pakistan, and in the Western context the difference in the Flemish and Walloon portions of Belgium, and Quebec in Canada. For our purpose the state refers to politically recognized entities participating in the international system; these nuances are significant. For example, breakaway republics are described as unstable or failed within the previous entity. There is however the notable exception of states that secede, albeit often with some violence, though an overall rapid process. There is also the case of states that break up into an unclear smattering of pseudo-states, as was the case in the Former Yugoslavia or Former Soviet Union. The use of the term ‘former’ anything denotes an uncertainty between the past and the future in terms of how the state defines itself. There are even exceptions to this; Croatia and Slovenia seceded from Yugoslavia rather quickly and with minimal violence. That violence re-ignited in Croatia was the concern of a new state, already recognized by the European powers, and arguably recognized by the de facto central government in Belgrade.

Political entities that are colonial creations are still states. Despite the post-colonial failure of the Wilsonian concept that every diaspora within a state deserves its own state (introduced at the Treaty of Versailles in 1919), those arbitrarily assigned borders are considered legitimate for the purposes of this study. This is not an endorsement or indictment of any particular group or policy, but a necessity for framing the study: without drawing a clear definition, the study itself falls into significant ambiguity over what events constitute triggers if states-within-states are considered as equal.

⁷ Chestermann, Simon, Michael Ignatieff and Ramesh Thakur. Introduction, *Making States Work*, United Nations University Press, Tokyo.

2.2 State Instability

State instability is defined as: “when a state experiences significant deficiency in its ability or willingness to provide basic public goods and service to the vast majority of the population, the vast majority of the time.” Instability can be triggered by actions the government takes, actions the government fails to take, actions a foreign group takes, or action taken by the populace in response to any. State instability is not sufficient to precipitate state failure; though it is necessary. In most cases state instability is the precursor to state failure, and there are many cases of state instability that diminishes, all but ending the possibility of state failure in the near term as long as instability is reduced.

2.3 State Failure and Conflict

The term ‘state failure’ is problematic for this work. It has been defined as being “in its most extreme form, the disappearance of both public authority and its supporting social norms. In other words, state failure creates domestic anarchy, which invariably involves the threat of violence, if not violence itself.”⁸ While true, this definition does not account for the less extreme forms, and is limited to the most acute cases of state failure in which the apparatus of the state collapses. A state trying, and failing, to provide social good can still be failed without collapsing.

The definition of state failure used by PITF is also inconsistent with the purposes of this work. The PITF defines a failed state as “utterly incapable of sustaining itself as a member of the international community.”⁹ This definition is insufficiently narrow to include the breadth of different conditions and degrees of state failure; even cases contained in the PITF data set. States that lack capability to participate internationally can do so without experiencing failure as described: ‘Even in modern states with inherited weaknesses, failure is not preordained. Impoverished, arbitrary, absent-minded creations predisposed to failure need not fail.’¹⁰ Poor, absent minded creations may be weak internally, without widespread violence; that state’s participation internationally is not relevant to examining its internal functioning. A better definition is required. State instability is defined for the purposes of this work as:

“When a state experiences significant deficiency in its ability, or willingness, to provide basic public goods and services to the vast majority of the population, the vast majority of the time. Instability can be triggered by actions the government takes, actions the government fails to take, actions a foreign group takes, or action the populace takes in response to any.”

State instability, using this definition, will last as long as the unwillingness or incapability to provide public goods and control its borders last. Unchecked instability can lead to state failure using the same definitions stated earlier in this document. It is important to restate that instability does not necessitate failure, though it is a necessary precursor.

⁸ Kasfir, Nelson. *Domestic Anarchy, Security Dilemmas, and Violent Predation: Causes of Failure*. Chapter 2 in Rotberg, Robert I., *When States Fail: Causes & Consequences*. (Princeton: 2004) 54.

⁹ Helman, Gerald B.; Rainer, Steven R. “Saving Failed States” in *Foreign Policy*. 89 (Winter 1992-1993). 3-20.

¹⁰ Rotberg, Robert I. *Breakdown, Prevention and Repair*, in *The Failure and Collapse of Nation-States* by Robert Rotberg. (Princeton Press: 2004). 20.

Weak or fragile states are not necessarily collapsed or experiencing instability, but they are vulnerable to instability. Fragile or weak states are those lacking sufficient legitimacy to impose order and/or the adequate capacity to provide social goods and services. That does not imply that there is widespread violence in the state, however. If the people demand little of their government, a state can be weak without being unstable. Collapsed states refer to a vacuum of authority; Somalia is often characterized as a collapsed state, and the writ of government does not practically extend beyond the city limits of the capital. A failing state may be on the trend towards collapse; the decay of the legitimacy and/or capacity of the state.

For a state to achieve legitimacy it must deliver the public goods and services citizens expect, and protect them by exercising a monopoly on the use of force. Legitimacy is inherently linked to expectations and acquiescence. However, this force must be applied in such a manner as to guarantee the delivery and enjoyment of those public good to citizens. While arbitrary arrest, detention and torture, all committed by the state may constitute a monopoly on the use of force in many cases it does not render it legitimate. However, the coercive power of state being used against the people is typically an indicator of rising state tension, and the risk of instability.

The improper use of violence (to subdue legitimate protest, to disperse peaceful demonstrators) by the state is not in itself the cause of state instability but is symptomatic of a state in which some of the population has revoked its consent to be governed, either by the system (legitimacy) or by the leadership (authority). State tension is the result of structural factors and proximate causes that conspire to heighten the impact. Structural factors provide reasonable accuracy in post-dictive analysis, but are of limited use for short-term predictions as changes do not happen quickly, not are they detected quickly. For that reason it is necessary to devise a system to code indicators of state instability and state failure to narrow the window in which to predict/mitigate state failure.

There is a fine line on the use of force and the perception is important. The use of emergency measures to protect the population from an insurrection or insurgency may be perceived by the bulk of the population as the legitimate use of coercive force. If the population (as a whole in broad terms) no longer perceives the use of force as legitimate, or deem themselves no longer in need of protection, it ceases to be the legitimate use of force. Legitimacy within the state requires both the will of the state to exercise force, and the will of the people to have it exercised selectively for their protection.

No state exists in a vacuum; the role of neighbours and transnational groups can influence state stability. The provision of public goods to its citizens the vast majority of the time is not solely an issue of willingness to positively do so; it includes commitments to overcome attempts to intercept delivery. Rebel or insurgent groups moving across tribal or disputed areas and across state borders erodes a state's legitimacy because it is an explicit challenge to its ability to exercise its monopoly. With the presence of a parallel mechanism for service provision and/or the use of violence, a state's legitimacy is directly challenged. Defeat of a parallel mechanism can include the use of violence; up to the point that the population continues to accept it as necessary to protect provision of public goods, the use of security forces need not constitute state failure, though it will likely entail instability, and possible refugee flows and/or environmental fallout.

Weak institutions or infrastructure inadequacies can accelerate an increase in state instability. The easier it is for the state to deliver goods to the public, the more widely they can be distributed.

Without road, rail, and power networks for example, or any one individually, the process of service delivery becomes much more difficult for the central authority. If there is a shortage of capacity, services cannot be delivered with the same effectiveness the infrastructure was designed for.

The role of leadership is critical in examining state failure. The responsibility assumed by leaders will define what services are provided. If a government views its role as maintaining a consistent border and nothing else, it will have a tougher job of effective governance than a government who also includes economic prosperity, access to food and water, political expression, freedom of religion, etc. Congruence between the expectations of the governed and the government's notion of its responsibility to the governed will mitigate instability and safeguard societal stability.

The above multiple and over-lapping considerations that constitute the range of state conditions from stability to failure present an overwhelming challenge to clearly delineate the transitions through this range, if confined to subjective interpretations. An objective measure can be developed through the application of statistical modelling, whereby the prediction of state failure becomes exclusively dependent on quantifiable data, as described next.

3 Models

3.1 General Requirements

An early warning model must be reliable, relevant and replicable. It must provide sufficient detail and sufficient alert to support decision making and allow for preventative action as a viable option.

A useful predictive model should be capable of monitoring and predicting state instability in regions of interest to Canada's foreign policy. These tools must also be useful operationally, organizationally and strategically. The accumulation and integration of research findings is vital if theoretical insights are to generate important policy relevant implications, especially at a time when early warning research is being criticized for its failure to provide policy-relevant diagnosis.¹¹

Hence the model envisaged must accommodate consideration of structural vulnerabilities, current trends and triggers (potential tripwires), which can be expressed as follows:

- **Macro** or long term processes associated with system wide transformations and the associated problems of the emergence of weak states;
- **Intermediate** mechanisms associated with institutional viability and "state-society" relations in different regions of the world; and
- **Micro** or short term selection processes and mechanisms that account for preferences of violence over pacific forms of conflict resolution and the subsequent escalation and/or duration of ethnic hatreds, violence and war at a particular point in time."¹²

Other terminologies used to describe the same are depicted in Table 1.

Table 1: Escalation Model

Long Term	Short Term	Immediate
Root Causes	Proximate Causes	Manifestations
Creation of Tension	Escalation of Tension	Explosion of Tension
Structural	Accelerators	Triggers
Logs	Kindling	Matches

Most long term, structural models examine historical data and produce annual evaluations. Event models are updated more frequently and many incorporate subject matter expertise (SME) input. This poses a different set of resource challenges: not all countries can be monitored. Typically long term models rank vulnerability and can be used to inform resource allocation over the long term. The examination of structural variables alone to prescribe solutions presumes an SME who understands the contextual repercussions of shifts in structural factors: this requirement might not necessarily exist for each country of interest. Short term assessments can be periodically updated

¹¹ Carment, David. *Anticipating State Failure*. Prepared for "Why States Fail and How to Resuscitate Them". Jan 19-21, 2001. 3.

¹² Ibid. 4

for more frequent assessments of state tension status, but this does not represent a dynamic or objective early warning model. The single opinion of an analyst, no matter how skilled, is not certain to make a balanced policy decision. Analysts are critical, and to minimize the subjectivity and ambiguity associated with their assessments, a precise, data-driven tool would be useful to provide objectivity to the significance of world events.

The EWM will seek to codify triggers in conjunction with the establishment of tension thresholds to identify the potential triggers of state failure. This will rely on some combination of methodological requirements of the Delphi or conjectural models. These ‘utilize a team of experts who identify key actors and estimate their future position on a given issue (regime stability, turmoil likelihood, investment restrictions and trade restrictions) with regards to their power to influence the outcome, the importance (salience) they attach to the issue, and the certainty or firmness of the actor's orientation.’¹³ This model implicitly accepts the concept of the leadership’s notion of what its responsibilities to the people are is significant in predicting the future of the state. This model is based on the notion of sequential behavioural events characterized as accelerators to instability at the micro level.¹⁴ The behaviours of the government and the governed will determine if state instability will occur, and how it will be handled.

3.2 Triggers

The definition of triggers of state failure represents a significant challenge in many areas. Distinguishing one event which can be isolated specifically as the trigger is often difficult, and can lead to significant discussion as to which incidence in a series served as the “tipping point”. Adding to the uncertainty are cases of state instability coded by PITF as complex; this means they display more than one type of instability (described below). Some indicators will almost always denote impending state failure, such as rapidly decreasing GDP per capita, or an even stronger indicator, a rapid rise in infant mortality rate.¹⁵ However, triggers as the specific event that tips a state from stability to instability have been insufficiently researched¹⁶, and thus is the purpose of this work.

For the purposes of this work, a trigger is defined as ‘a discrete event that represents culminating stimulus that may cause state instability leading to a high likelihood of state failure.’

3.3 PITF

As directed in the Statement of Work, the Political Instability Task Force (PITF) data were used as a departure point. Hence the work began with collecting data on triggers to supplement the PITF data set. Subsequently, existing models of conflict analysis were examined, followed by a cursory review of the available events monitoring tools. Ensuing analysis prompted development of a definitional framework and characterization of triggers.

¹³ Ibid. 20

¹⁴ Ibid.

¹⁵ Ibid. 21

¹⁶ Ibid.

The analysis in this work is based on the data set from the PITF. The PITF data set was developed originally in 1994 by researchers at the University of Maryland's Center for International Development and Conflict Management, and revised in 2001. It provides a comprehensive listing of "major political instability events" from 1955 onward reflecting the diverse concerns of the project's sponsors. Characterization includes four distinct types of political crises/state failure: Revolutionary War, Ethnic War, Adverse Regime Changes, and Genocides or Politicides.¹⁷

Case information includes coding of country, temporal (dates of onset and termination), type, scale and a brief narrative description of the state failure. Magnitude data incorporates considerations of the number of participants/fatalities and portion of the country affected. Although subject to criticism for focusing too heavily on conflict, the PITF describes itself as "the first comprehensive empirical effort to identify the correlates of state failure."¹⁸ It serves as a reasonable start point for developing an early warning model. The magnitude scales for Adverse Regime Change include three variables: Failure of State Authority, Collapse of Democratic Institutions and Violence Associated with Regime Change which may be useful in characterizing triggers. It is noteworthy that the PITF data set includes many cases where public authority and social norms remain generally intact, though violence and/or crisis are still present.

3.4 Other Models

Relying only on PITF is problematic; it presents a retrospective focus on root or proximate causes of state failure, with considerable overlap in characterizations. To balance the perspective at the outset other models were considered and assessed:

- Conflict Analysis Framework (CAF) – World Bank.
- Conflict Analysis for Project Planning and Management (GTZ)
- UNDP Conflict-Related Development Analysis
- Conflict Assessment System Tool (CAST) – Fund for Peace
- The Stability Assessment Framework: Designing Integrated Responses for Security, Governance and Development (Clingendael Institute)
- An Early Warning Approach to Conflict and Instability Approach: The Fuzzy Analysis of Statistical Evidence (FASE) model. (US Army Centre for Army Analysis)
- FAST Analytical Framework
- Conflict Indicators for Foreign Policy (CIFP) (Carleton University)

One of the more striking observations is the sense of convergence – although each model varies in terms of schema and indicators, all incorporate political, economic and social perspectives and many are based on the same source data, Polity IV.

¹⁷ Goldstone, Bates, Gurr, Lustik, Marshall, Ulfelder, Woodward. A Global Forecasting Model of Political Instability. (Political Instability Task Force: 2005) 2

¹⁸ State Failure Task Force Report 30 November 1995, iii

3.4.1 Conflict Analysis Framework (CAF) - Identifying Conflict-Related Obstacles to Development

The CAF model seeks to support country and regional efforts to analyze and address conflicts in the context of country assistance, poverty reduction and other development strategies. The model attempts to identify the sources of conflict in a state where the World Bank is facilitating development programs. While development is outside the purpose of this project, the model is still useful because it provides a framework in which root causes and proximate causes are used to denote a state's stability or instability, and the considerations for development projects germane to it. Regardless of the intended use of this model what it seeks to measure is relevant to this project.

A list of indicators denotes a state's eligibility for conflict analysis. History of armed conflict, income per capita, primary commodity exports, regional instability (transformation of state structure and political instability), militarization of the state, ethnic dominance, active regional conflicts, and youth unemployment are the indicators examined. The model rightly states that none of these conditions are necessary to indicate an outbreak, escalation or revival of violent conflict.

The indicators above are designed to indicate if a state requires further conflict analysis. It is not clear what, if any, metrics are applied to the indicators to decide what level of tension merits a full analysis. Except for the presence or absence of ongoing conflict, the model indicators are consistent with the initial analysis of root causes of conflict across the twenty-one county test group. The model lacks a threshold for defining when tension becomes conflict.

If a conflict analysis is deemed necessary from the indicators, there are six categories of additional variables assigned a level of intensity (warning, increasing intensity, de-escalation) reflecting the change in the level of conflict. The categories are: social and ethnic relations, government and political institutions, human rights and security, economic structure and performance, environment and natural resources, and external factors. Each variable is then analyzed along seven dimensions to determine how it related to conflict and poverty: history/changes, dynamics/trends, public perceptions, politicization, organization, link to conflict and intensity and link to poverty. These variables are consistent with those necessary to predict conflict (based on the other models in the remainder of this document), although they are analyzed to craft development.

The measure of each variable is based on a qualitative scale. This non-parametric scoring is a limitation for a predictive model. This model introduces the categories of variables for conflict analysis only after crossing the risk screening indicators. This is consistent with the notion of a minimum threshold that states must cross to be at risk of failure. Though still a qualitative analysis, the application of a threshold is useful for this project to identify which indicators or bundle of indicators are typically used to capture a state's level of threat for failure.

3.4.2 Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ): Conflict Analysis for Project Planning and Management

This analytical framework is intended for state analysis where development projects are going to take place. The goal is to understand the environment in which development leaders will deliver aid to create better, more informed, contextualized development policies in a particular state. The concept of conflict prevention in this model considers a long time frame and seeks to address structural/root sources of conflict.

The tasks this model seeks to complete tend toward an understanding of the wider conflict to focus local development program delivery. The report states clearly that indicators (such as accelerators and triggers) have limited usefulness for the purposes of this framework (guiding development projects), and thus is not deemed particularly useful to inform this project.

3.4.3 UNDP: Conflict-Related Development Analysis

This framework was developed to provide UNDP employees a tool to better understand the linkages between conflict and development, and how to craft development policy in such a way to effect conflict. The methodology involves three stages: analysis of conflict, analysis of current responses to a conflict, and identification of ways forward. Only the first stage, analysis of conflict, is useful for a predictive model.

Conflict analysis in this model involves five stages: identifying the background situation, the matrix of conflict causes, the actor analysis table, conflict dynamics, and conflict scenarios. The background situation is a simple table itemizing the history, economic, social, political, environmental and geographic factors separately. There is no analysis at this stage, only listing of information. The causes of conflict matrix has the cause as columns (security, political, economic and social), and the scope as rows – from international to local. This tool is meant to identify the structural, not the proximate causes of conflict. The actor analysis matrix shows the actors (subdivided by scope from local up to international) with their interests and capabilities listed. This is meant to show which actors are the greatest threat to the eruption or continuation of conflict. Next, conflict dynamics are depicted as a free diagram. This is effectively unstructured and should reflect the tensions involved in the conflict.

These tools support the development of conflict scenarios. At least three potential courses of action are drafted indicating the worst-case, status quo, and best-case scenarios. It also includes the features of each scenario and the benchmarks or indicators of courses of action. This tool is not particularly useful as a predictive model, as it was designed to provide insight into an ongoing conflict to guide informed policy decisions. It is consistent with all the other models in that its start-point is an analysis of the background situations to identify structural causes. It ceases to have predictive value when it moves to addressing conflict dynamics, as it is too late to identify states at risk for failure once conflict has erupted. By then the indicators have come and gone.

The strength of this model is that it introduces the idea of courses of action. No model will be able to perfectly predict the outbreak of armed conflict, but by analyzing all the data involved informed course of action can be drafted. If done well, courses of actions can lead into contingency plans if required.

3.4.4 Conflict Assessment System Tool (CAST)

CAST is typical of existing conflict and early warning models. It “incorporates a theoretical rationale, a conceptual framework, quantifiable and qualitative indicators, indicator measures, and a rating system for trend analysis”. The four-step analysis involves rating using 12 indicators, examination of 5 core institutions to assess institutional capacity, and identifying idiosyncratic factors. Outputs include the Failed State Index (based on the first step and published in Foreign Policy), country profiles and a conflict map.

The index scores are based on publicly available sources using Boolean logic and gathered electronically (Thomson Dialog). The methodology is copyrighted and the software patent approved. One of the strengths of CAST is its inclusion. The number of states ranks in order of vulnerability has steadily grown from 75 in 2005 to 148 in 2006 to 177 in 2007. The top (worst) 60 are arbitrarily assigned (20 each) Critical, In Danger, and Borderline status. These assessments are suitable for the structural factors component of a predictive model, except that no assessments are available for model development using historical data.

3.4.5 The Stability Assessment Framework (SAF)

The Stability Assessment Framework was developed by the Conflict Research Unit (CRU) of the Netherlands Institute of International Relations (Clingendael) at the request of the Netherlands Ministry of Foreign Affairs. The framework includes three major parts. Part One involves tailoring the framework to user’s needs, Part Two mapping and analysis and Part Three workshop activities to assist in interpreting and applying the analysis; i.e., developing a strategy. This framework represents an attempt to extend state vulnerability assessment into the policy realm – the SAF “is primarily a process-management tool: it helps to incorporate information management and analysis, policy identification, and prioritization into the development of an overall stability promotion strategy for a particular country or region”. Although SAF might provide insight into related processes it is Part 2 - the initial stages involving in mapping state failure – that is pertinent to developing an early warning model.

The SAF methodology for assessing state stability derives from CAST. SAF bases assessments on trend analysis i.e. the 12 CAST indicators are used and trend assessment generated based on direction and intensity of change. Assessment points (dates) are selected and a weighting factor applied to indicator trends. The reporting period/timeline is case specific, though monthly assessment is often depicted. Indicators are rated as to their importance at those times and using 0-10 scale relative importance used to create trend lines which, in turn, are plotted. Provision is made for inclusion of triggers as part of trend projection i.e. the model will accommodate accelerators and triggers linked to the indicators as trend drivers. As implied, these trend lines represent informed judgement rather than expressions of mathematical/statistical findings.

The SAF methodology provides for inclusion of an evaluation of institutional capacity and political actors. Guidance questions frame assessment (stable, improving, deteriorating) of the effectiveness and legitimacy of the military, police, judiciary, civil service and parliament. Consideration of political actors is geared more towards identifying engagement opportunities and entry points for establishing dialogue than for assessing state tension, but the SAF is one of the few models to concede the importance of leadership.

Though it lacks specific metrics the SAF provides, in a general sense, the basic components of a good predictive model. It considers the trends in tension within a state based on conventional indicators and then looks for accelerators or triggers to transform that tension into violence. The remainder of the model is geared toward development policy and thus not useful to this project at this stage.

3.4.6 An Early Warning Approach to Conflict and Instability Approach: The Fuzzy Analysis of Statistical Evidence (FASE) model. Sean O'Brien – Centre for Army Analysis. Department of the US Army.

The purpose of this model is to develop of predictive model based on the historical record of why and how conflict erupted. This model begins by breaking conflict into independent and dependent variables for analyzing the likelihood of conflict (FASE Model). The independent variables are the maximum level of intensity of conflict per country year, the percentage of history a country has spent in conflict, the infant mortality rate, trade openness, youth bulge, civil liberties, political rights, life expectancy, caloric intake, democracy, GDP per capita, religious diversity and ethnic diversity.

The dependent variable is the occurrence of conflict, defined on a four point scale including war, violent conflict, non-violent conflict, and no conflict (KOSIMO model to identify history of conflict). The predictive analysis was arrived at by dichotomizing the dependent variable (violence v. no violence) for each independent variable and country. From that analysis the correlates of instability are derived in a table. The table depicts the ratio of most stable to non stable countries resorting to violence for each variable. For example, a history of conflict makes a state 15 times more likely to return to conflict that a state with no history of conflict.

This model is heralded as providing 80% accuracy in showing state failure. Also included is a recall and precision figure defined, respectively, as the ability to predict the right type of conflict that will occur and the ability to predict state failure without delivering a false positive. The postdictive recall and precision values were 90% and 66%, respectively.

The strength of this model is its high postdictive predictive capability. Its weakness is its reliance on correlation vs. causation, and for the purpose of this work it does not consider triggers or accelerators of conflict.

3.4.7 Swisspeace: FAST Analytical Framework

The FAST framework is designed to be applied to each state deemed at risk of failure. The FAST model assumes states already at risk of failure have been identified. The analytical framework included the root causes, the proximate causes, and finally the intervening factors (positive or negative) to inform the likelihood of state failure.

The root causes typically listed are historic, political, social, economic and international. These categories are malleable as necessary to provide the most accurate reflection of the root causes of potential conflict for each at risk state. The proximate causes include political/governance, security, social, economic and international, and are also subject to changes, depending on the situation. Proximate causes date back approximately five years as a non rigid guideline. The

intervening factors are specific events that raise or lower the existing level of latent tension (a function of root and proximate causes) that exists in a state to provide an assessment of likelihood of armed conflict.

FAST uses the framework as the start point for other products, like its country updates and country risk profiles. These documents provide analysis and assessment of the current tension and likelihood of conflict for each country it studies. The update assesses the political, economic and security situation in a country, and finally an outlook assessment. The country profiles are larger, more cumbersome documents that analyze everything about a country at risk of failure and are quite comprehensive documents.

FAST hosts a reporter that graphically depicts where a state lies on the IDEA figures for conflict and cooperation. It shows in comparable terms where a state is cooperating more than it is in conflict, and vice versa. This can be used as a threshold indicator of risk. IDEA presents a loose ranking system in terms of severity of the event. For example, under 'force use' riot outranks peaceful demonstration, under 'demonstration' the show of armed force ranks above protests. In this manner IDEA codes its events according to severity. If this measure is accurate, we can surmise that the more severe an event, the greater the effect in narrowing the delta between the index of state tension and the threshold of instability. FAST also graphically represents where on a map incidents of conflict have occurred. This is useful to analyze if conflict is localized or widespread, and can provide a rough basis for analyzing identity groups' involvement in conflict if they are regionally concentrated.

The tools provided by FAST are very useful. The positive and negative intervening factors is the most effective method of examining triggers or accelerators to armed conflict of all the models examined. It allows for the de-escalation of conflict, indicating an elevation in tension is not deterministic of eventual state failure. The other models up to this point provide itemization of the root and proximate causes, but none have attempted to push the model into the shorter-term cause of state failure. There is no metric analysis represented in the model. It does deal with specific events as being positively or negatively contributing to an already tense situation. The concepts used by FAST are very effective and unique in this pool of models. In the time of this research FAST has discontinued its service due to budget constraints.

3.4.8 Carleton University: Country Indicators for Foreign Policy (CIFP)

The CIFP model developed by Carleton University is intended to provide the analyst with a comprehensive analytical tool kit to evaluate risk reports. It is perhaps ironic that its origins can be traced to a prototype geopolitical database developed by the Canadian Department of Defence in 1991. CIFP attempts to marry an assessment of structural risks and events monitoring to determine a state's risk of failure, to integrate both data and expert judgement.

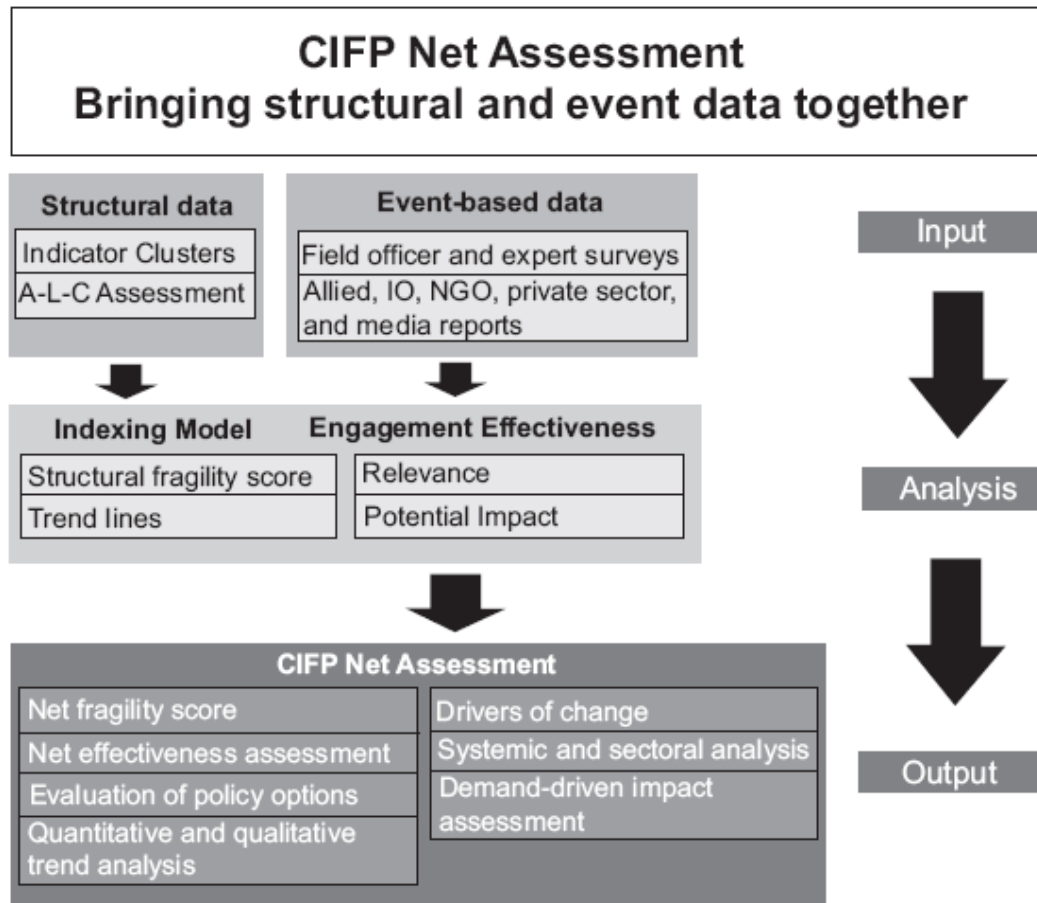


Figure 1: CIFP Net Assessment Methodology¹⁹

The indicators are measured temporally to denote changes in risk in a particular variable. The nine issue areas contained in the model are: the history of armed conflict, governance and political instability, militarization, population heterogeneity, demographic stress, economic performance, human development, environmental stress, and international linkages. Each issue area is then subdivided appropriately. For example, on the measure of militarization, the sub-categories are: military expenditure as % of GDP, fraction of regional military expenditure a state's expenditures comprise, and the total armed forces in a state per 1000 people.

The values assigned to each variable are done using externally controlled data. This is significant because the analyst and data set are separate. Any disputes on assessments must be addressed directly to the analyst, as that individual had no control over the collection and coding of the data used in the final product. A full list is available in the source documents. A partial list includes

¹⁹ Carment, David., El-Achkar, Souleima., Prest, Stewart., and Samy, Yiagadeesen .The 2006 Country Indicators for Foreign Policy: Opportunities and Challenges for Canada, Canadian Foreign Policy, Vol. 13, No. 1, p. 3.

Polity IV, SIPRI Military Expenditure Database, UNHCR, Annual Statistical Overview Reports, and World Development Indicators.

The strength of maintaining the data externally is there is no risk of accusations of bias in the analysis, because the analyst did not generate the data set. Having reputable third parties generate the data sets mitigates risk. Because the data are held consistently by one source the analyst can assess any potential bias in the data set, and can assess any unexpected deviations. This model does not provide an assessment of triggers, nor is it designed to. Its strength lies in multiple root cause categories that are controlled by independent data sources.

This model provides an excellent point to develop a threshold of state failure, and how a state approaches and falls away from threshold. Any model using triggers and accelerators to determine the likelihood of state failure requires identification of states more likely to fail, and the CIFP model provides the framework for the initial assessment of structural factors.

3.5 Model Assessment

The last two frameworks are the most relevant to this project, as they use a comprehensive approach to explaining state failure and instability. FAST approaches the current situation temporally, as a continuation of its history expressed in root and proximate causes, and an assessment of the probable effect of events in the future. This method is effective for early warning, and informs this work's attempt to codify a predictive model.

The work of the CIFP is also significant in its comprehensive approach to state failure beginning with a plethora of structural causes. The work built from there on historical events monitoring is significant for the same reason as FAST: the issue of future instability is expressed as temporally continuous. The additional reports, reviews and assessments provided by both FAST and CIFP deliver concise summations of the concerns in a given country, the regional influences, and very well informed expectations for the future.

The body of knowledge available on structural and proximate causes is vast, in-depth, established and maintained by many different organizations concerned with state instability and failure. To attempt to reproduce their results would be foolhardy, and an attempt to reinvent a very functional wheel. Structural analyses tend to be quantifiable as inputs to the models or frameworks. However, as Robert Rotberg, state failure scholar, points out, the same is not true for triggers or tipping points: "research on failed states is insufficiently advanced for precise tipping points to be provided."²⁰ The current project seeks to develop a model, based on the existing structural and proximate methodologies that will indicate a threshold within which triggers (or to use Rotberg's term in this instance, tipping points) are likely to manifest state instability, and possibly eventually state failure. The following sections elaborate further on this, and provide a graphical representation.

²⁰ Rotberg, Robert., Ch 1, *The Failure and Collapse of Nation-States: Breakdown, Prevention and Repair*, in *When States Fail: Causes and Consequences*. Princeton Press, 2007. 25.

4 The Conceptual Model

DRDC's Conceptual Model envisages accessing existing databases, exploiting regressive analysis to identify and validate a small set of indicators, and applying an integrative time series approach to maintain State Tension Situational Awareness.

4.1 Index of State Tension (IST)

A key hypothesis in the development and extension of time weighting will support creation of a predictive capability. The Conceptual Model includes generation of an Index of State Tension (IST) reflecting both long term and short term contributors. A numerical value is derived for each state on this index. That value will be an aggregate representation of the level of state tension comprising two main components – structural factors and events data. The first component, structural, is not subject to rapid changes and forms a baseline condition. GDP, infant mortality, trade imbalance and other similar variables are objective examples that comprise the structural factors. The proximate causes, and the value assigned them, will dictate rises or drops in the level of state tension, depending on how they are characterized. Proximate causes can be described as 'accelerators' that give rise to state tension over a longer period of time than events/triggers would. Famine/drought, arms movement, and escalating drug production are examples of proximate causes; they do not describe structural conditions and the timeline is too long for them to qualify as events. Proximate causes bridge the gap between structural factors and triggers.

Proximate causes can contribute to the baseline condition of state tension; however this will evolve over time. The timeline is not precise between when a proximate cause falls far enough into history to become a structural factor, or when a, potentially, trigger events becomes a proximate cause, and so forth. Suffice it to say, as time carries on, events can fall into obscurity in the public consciousness, or become hardened as proximate causes and eventually structural causes if sufficiently significant. Ethnic conflict is an example of a significant event that is never fully erased from the public consciousness, thus becoming a lasting structural factor. This is true in India/Pakistan, the Turkish purge of Armenians, the Former Yugoslavia, and many others.

Events monitoring represents the most time-sensitive data, raising or lowering IST quite frequently. The distinction between events and triggers will be addressed further on. The mathematical specifics of how aggregates of the model are combined fall outside the scope of this report.

4.2 Thresholds

A state will pass from stability into a state of vulnerability, and later state failure, if the value assigned in the IST crosses a pre-determined threshold. The threshold will be determined through historical regression analyses of threshold levels relating to state failure. Such a model would be useful in identifying when state tension is so high that a particular trigger is likely to become a catalyst for instability and/or failure. The Conceptual Model is illustrated below in Figure 2. The orange bars indicate the IST, and the thresholds are clearly marked. For state instability, the weighted index value must rise about the first threshold, and for state failure, the second

threshold. The threshold is the assessed probability of the point at which a state tips from relative stability to instability, and possibly eventually state failure. This model is still under development, and will be subject to peer review.

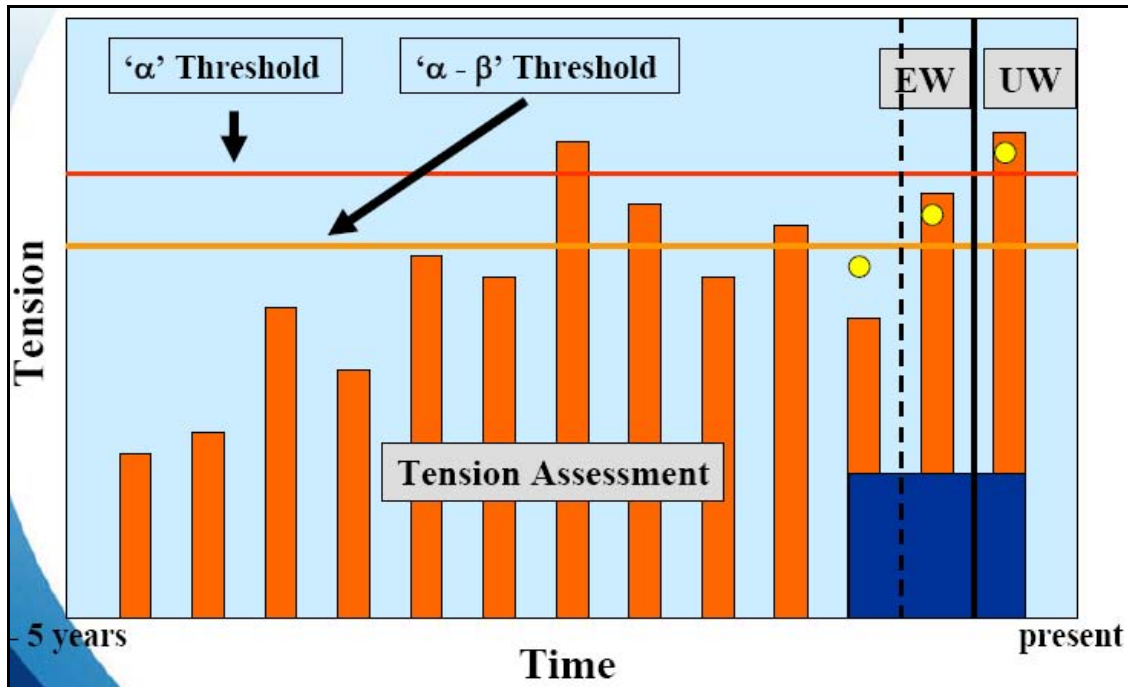


Figure 2: DRDC Conceptual Model

The model inputs will be based on a significant volume of validated data to determine the structural factors. The proximate causes and events/triggers will always involve a degree of subjectivity; the closer to instability a state closes the more subjective the classification of data will become. A subject matter expert will be required to code the significance or weighted impact of the proximate causes and events/triggers. This is less objective than the structural factors, but complete objectivity is untenable; the number of parameters required for a 'pure' objective model cannot be supported by the limited data available. A sampling of different modelling approaches is depicted in Figure 3.²¹ The models depicted will not be described individually here. The purpose of the figure is to denote the streams of analysis, and the methods that exist within each discipline to illustrate the number and type of tools available for early warning analysis if one is so inclined.

²¹Gupta, Dipak. 'An early warning about forecasts: oracle to academics', in Susanne Schmeidl & Howard Adelman (eds), *Synergy in Early Warning Conference Proceedings*, Toronto, 15–18 March 1997, pp 375–396.

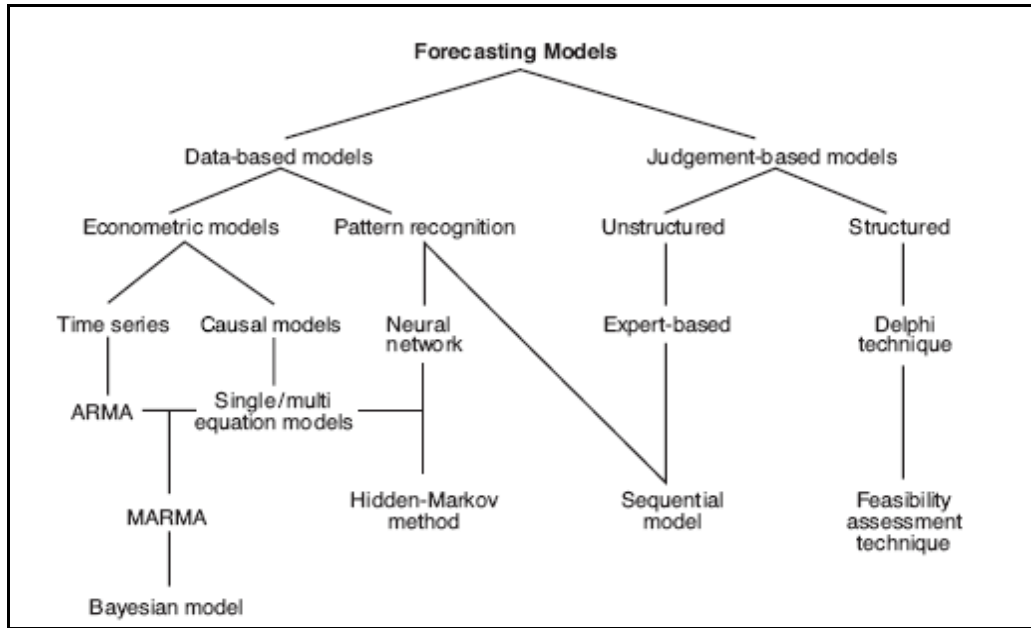


Figure 3: Forecasting Models

4.3 Establishing Thresholds

The threshold defines the point at which state tension is elevated to such a point that conflict is possible. It is envisaged these will be determined postdictive i.e. through a regressive analysis of data. Obviously, without reliable structural data for all the cases whose triggers were studied, it is impossible to know the threshold *a priori*. Hence, conceptually, the way ahead must provide for collection of illustrative if not actual supporting data. Determination of thresholds will be explored in the next phase as the methodology matures.

4.4 Early Warning

A state enters the Early Warning phase when its IST rises above the lower threshold $[(\alpha - \beta)$ in Figure 2] representing the point when state tension has been elevated to a point where the state is at risk/vulnerable to a triggering event. Consequently, triggers are especially important and warrant close attention when a state's IST lies between $(\alpha - \beta)$ and α (Figure 2), hence the rationale for differentiating Early Warning is to allow for policy makers to consider intervention options when there is still time to act prior to state failure. While the structural factors and proximate are important contributors, the IST is dynamically more sensitive to events in this zone.

4.5 Urgent Warning

Further rise in the IST above the lower, EW threshold $[\alpha$ in Figure 2] when state tension has been elevated to a point where the state is unstable such that the probability of state failure is close to

the value one (i.e. near certain) may also be discernable. This represents a 'final' alert above and beyond early warning and has been tentatively labelled 'Urgent Warning'. Urgent Warning represents the point at which just about any provocative event could serve as a trip wire and result in state failure. Conceptual differences with other forecasting approaches (e.g., FAST, CIFP) are in the degree of crisis and consequent foreign policy response. The appropriate response to an Urgent Warning could include a high alert or standby preparedness for the deployment, for example, of a Canadian Forces element equipped to address the particular crisis and/or evacuation of nations.

5 Triggers

To make proper predictive use of triggering events they must be situated in the context in which they occurred. If significant tension exists within a state, the triggering event could be diverse and something that might be incurred as another irritant under other circumstances. For example, the use of improvised explosive devices (IEDs) in Iraq and Afghanistan cannot be considered as significantly raising the level of state tension. However, if an IED was to detonate in a major Canadian city, the effect on state tension would probably be very significant, but absorbable given the stability of the country. This is an extreme juxtaposition, but it serves to illustrate the importance of context with respect to triggering events.

5.1 Trigger Characterization

The triggering event can be characterized in terms of type (nature vs. man) and origin (internal vs. external). This characterization also applies to proximate causes, or stimulus contributing to state instability prior to the discrete event described as the culminating stimulus. This is worth discussion, as the proximate causes can be intervention from a great power, former colonial power, or cross border incursion.

In the discussion of man vs. nature, the presence (or absence) of natural resources is not considered a trigger in and of itself. For example, Sierra Leone has an abundance of diamonds and they were used as means to sustain an insurgency throughout the 1990s. A natural resource cannot qualify as a trigger; the choice to continue or provoke conflict is a conscious human decision. Resources can be significant factor in determining the raising/lowering of state tension. The abundance of diamonds would qualify as a natural proximate cause. The diamonds did not cause instability but distribution manipulation contributed to state instability, given the appropriate trigger. Once the trigger was provided the presence of diamonds grew more significant. Similarly, state instability of 1989 in Papua New Guinea over mining rights and profit sharing was not inevitable, but attributed to the manner in which it was addressed by the mining company, the Australian government, and the local resistance.

A natural disaster exacerbates tension and can serve as a trigger under the appropriate conditions. There are no cases of natural disasters in the data set examined herein, but collateral information exists, and its results are ambiguous. Disasters can lead to public outcry for change and reconciliation, but can also lead to agreements signed in haste without addressing the underlying societal tension,²² as was the case between Greece and Turkey in the aftermath of earthquakes in either country. Conversely, they can lead to each side hoping to garner as much public support as possible. In Sri Lanka after the Tsunami of December 2004, the government and the LTTE both sought to distribute aid and relief independently to garner public and international support. Eight months later, in August 2005 the Sri Lankan foreign minister was assassinated, with the Tigers denying responsibility for the act²³. The effect is ambiguous, and is more a function of the tension within a state, and the characteristics of the long-standing conflict, and the parties to it. For a

²² Ker-Lindsay, James. Greek-Turkish Rapprochement: The Impact of 'Disaster Diplomacy'?, 227.

²³ BBC News. *Senior Sri Lanka Minister Killed*. 13 August 2005.

natural disaster to be a trigger there must be significant tension already at play. This applies for all triggers and is meant to show that triggers are not exclusively the work of humans.

State instability is a deficiency in the authority, legitimacy and/or capacity²⁴ of a state to administer the provision of public goods and services. It is significant to note that failing capacity is not typically sufficient to produce violent conflict. 'Lack of capacity is not the sort of state failure that is sufficient to produce a security dilemma. Only when poor performance causes individuals or groups to think that their potential rivals will not be restrained by state authority will the possibility of a security dilemma arise.'²⁵ Security dilemmas arise when one group (typically ethnic) fears its security will not be guaranteed, and takes collective responsibility by arming itself. The dilemma is created when the group purportedly arming for defence (security) is misinterpreted as arming for attack (offence), prompting that group to arm itself as well. The string of misinterpreted behaviour and motives causes neither side to be safer than when having not armed at all. A security dilemma differs from predation. Predation is when one group identifies weakness or absence in structural or organizational inhibitors to its dominance (writ large) and seeks to exploit another group for its benefit.²⁶ Both can occur in an unstable state, with or without state assistance (e.g., if the government sponsors a predatory movement, or is indifferent to a security dilemma forming).

²⁴ Gagne, Jean-Francois., Samy, Yiagadeesen., Carment, David., Prest, Stewart. *Small States, Resilience . and Governance*, July 2007. Presented at the May 2007 Small States and Governance Conference in Malta.

²⁵ Kasfir, Nelson. *Domestic Anarchy , Security Dilemmas and Violent Predation*, in: When States Fail: Causes and Consequences. Princeton, NJ et al: Princeton University Press. 2004. Pp53-76.

²⁶ Ibid.

6 Results/Analysis

6.1 Types of Variables

The following variables describe how each case of state instability was coded for this analysis.

6.1.1 PITF model

The data set used as the start point for this analysis defines conflicts, as follows.

- Ethnic
- Revolutionary
- Adverse Regime Change
- Genocide

They do not necessarily occur in isolation. They can be single, or grouped as ‘complex’ conflict. These are described in the PITF handbook, and will not be addressed further here.

6.1.2 Types of Triggers

The following is a list of the triggers identified in this work’s research:

- Arbitrary arrests
- Armed attack
- Assassination
- Coup
- Elections
- Killings
- Protests
- Secession

This is the final list, after a much more extensive list was abridged.

Some of the items in this list represent the amalgamation of a number of similar events grouped under common headings. While ‘coup’, ‘arbitrary arrests’ are self explanatory examples, incidents like ‘election’, ‘armed attack’ or ‘killings’ is not as clear. Due to the complexity and divergence within the data set things like a cancelled election, a portion of the population boycotting election, or election results being recalled, all issues related to electoral politics and events were labelled as ‘election’. To code the event otherwise (individual coding of ‘cancelled election’, ‘partial boycott’, etc) would create single entries for a number of incidents of state failure, and eliminate the possibility for further comparison. This amalgamation was necessary

and appropriate for the grouping of similar electoral event; however this amalgamation was not appropriate for every other triggering event.

In terms of violence, a differentiation was made in the level of organization in the application of violence. 'Armed attack' is different from 'killings' in terms of organization and intent. 'Armed attack' is meant to denote organized violence carried with the express intent of delivering a political message. 'Killings' is the disorganized use of violence at the individual level: a robbery gone wrong that is publicized, or police accidentally killing someone are examples of fatalities resulting from actions other than political, that if publicized can have a political effect. They both have the potential to trigger state instability, the difference lying in the ability of the society to absorb a potentially tension-causing event without violence. Events classified as protests are an amalgam of any significant street presence of displeased citizens. These are not differentiated in terms of organization or spontaneity, but rather as a measure of significant demonstration; exact numbers of protestors required to establish the threshold was not examined for this work. Whether peaceful or violent, or descending into a riot, all street demonstrations are classified as protests.

Assassination and coups covered both successful and attempted assassinations and coups, and succession covers every event in which a portion of an existing state declares its separation and independence. These events did not require amalgamation under a single heading.

6.1.3 Characterization of Triggers

Triggers are then coded in terms of motivation. Triggering events can be coded as:

- **Initiative:** these events are planned and calculated in advance. These are significant because they are impacted less by current events than opportunistic or reactive events.
- **Opportunity:** these events arise as a result of a political opportunity. These occur because the situation pervasive at that moment fostered the furthering of a political agenda.
- **Reaction:** these events are the after-shock of a preceding event. These are not pre-planned and are contingent on some sort of provocation.

The characterization distinction denotes some of the context of the triggering event. Reactions are an indication of provocation and opportunity is indicative of underlying tension of some kind. The coding of a trigger indicates something about the context within a state prior to instability. The motivation behind an event in many cases provides an indication of what the political goal of the action is, and what is the likely outcome, in terms of state tension.

Triggering events can be further coded dichotomously in terms of internal/external support for the triggering event. To illustrate the context in which triggering events occur we can consider if the state instability occurred in a region going through decolonization or secession. Secession is not necessarily a trigger because secession may happen without violence, therefore not be a triggering event. When secession is a triggering event it is coded and applied against the model accordingly.

The challenge is to identify what defines a triggering event. The research indicates that they can be vaguely categorized in most cases. However, the context within each society and the level of state tension will dictate if an event passes without incident or significant reaction, or if it serves as a trigger to state instability or failure. A state must be vulnerable when a trigger occurs to cause state failure; cases of failure and non-failure from the same type of event (assassination, coup attempt) is proof of this, and confirms the ambiguous nature of triggering events, especially in the

predictive sense. The context surrounding the triggering event will influence if it passes as an event, or triggers a new series of events of instability or failure.

6.2 Triggers as expressions against elements of state power.

DRDC Toronto has developed a model of command that may have import and application framing state instability. It is referred as the 'CAR' model; an acronym for competence, authority and responsibility. The model has been used in discussing command and control, described as 'the creative expression of human will necessary to accomplish the mission' and 'those structures and processes devised by command to enable it and to manage risk' respectively.²⁷ Pigeau and McCann postulate that command capability can be described as a function of these three dimensions. Sub elements include:

- Competency – Physical, Intellectual, Emotional and Interpersonal
- Authority – Legal and Personal
- Responsibility – Extrinsic and Intrinsic²⁸

A somewhat similar ACL (Authority, Legitimacy and Capacity model (*Figure 4*) is used by CIFP to depict and contrast state stability.

²⁷ Pigeau, Ross; McCann, Carol. *Re-Conceptualizing Command and Control*, in Canadian Military Journal: Spring 2002. pgs 53-64.

²⁸ McCann, Carol, Ross Pigeau and Allan English. Analyzing command challenges using the command and control framework, Defence Research & Development Canada (Toronto), TR 2003-034, February 2003, p.2 .

**Comparison of Guyana and Cameroon
ALC scores to the OECD average**

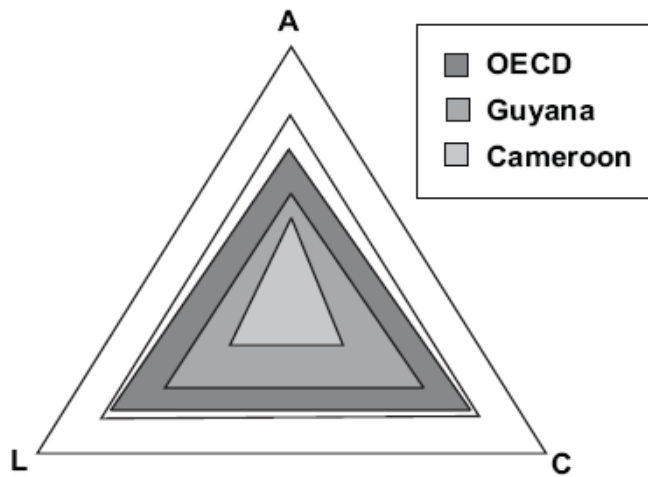


Figure 4: Authority, Legitimacy & Capacity Triangle²⁹

A merger - extrapolation of the CAR model and adaptation of the ACL model - might be considered. Although common to both models, Authority in the CAR model subsumes elements of legitimacy i.e. Authority refers to the authority delegated to a commander to exercise command and control, and the authority vested by peers and subordinates to be commanded. Broadly applied to a state this would include the power constitutionally endowed upon leadership, and, more crucially, the will of the people to be governed on a day-to-day basis. Conversely the ACL model distinguishes between an ability to enact binding legislation and an ability to command public loyalty. Both models acknowledge the importance of the social contract between governing and governed. The CAR model's responsibility offers an additional dimension/lens with which to evaluate statehood. As extended from the CAR model, Responsibility encompasses an assessment of the ruling elite's sense of commitment and accountability. As was noted in the initial project kick-off meeting, leadership and attitude of the governing class can play a significant role in raising or lowering tension and may be a determinant in state failure. Competence refers broadly to know-how and means. Applied to a state this would include institutional and infrastructural effectiveness, the equivalent of CIFP's Capacity which is defined as the power of the state to mobilize resources towards productive ends i.e. political and administrative competence.

Road and rail, electricity and communications networks are elements impacting on a state's Capacity or Competence. Competence is rarely a trigger. The cause of state instability will more likely stem from failures in Authority or Responsibility, and far less frequently, certainly less directly, from failures in Competence. A failure of Competence is less likely to cause state instability for the simple reason that by the time a state is incapable of (as opposed to unwilling

²⁹ Carment, David, Souleima El-Achkar, Stewart Prest and Yiagadeesen Samy, The 2006 Country Indicators for Foreign Policy: Opportunities and Challenges for Canada, Canadian Foreign Policy, Vol. 13, No. 1, p. 6.

to) delivering public goods, they have most likely also lost the will of the people to be governed, lost the will themselves to govern, or both. The only cases of a lack of Capacity or Competence causing state instability identified in the data set to occurring since 1990 was Sierra Leone and Guinea, in 1991 and 2000; these states border each other. The prevailing source was an insufficiently strong security mechanism in both cases and consequential failure to secure the borders against incursions. The task of border security is made more complex in this environment (coastal West Africa) due to the mountainous jungle terrain that is almost impossible to maintain consistent security over. Even then there is a debatable point that the state could provide security of the borders if it deemed it a top priority.

More typically, the critical breakdown in states occurs when the people are governed against their will, but for what ever reason (fear of arrest, torture, imprisonment, execution, etc), are incapable of overcoming the competence, or capacity, of the state to enforce their decrees. Authority presumes a two was street: the government to enact policy, and the will of the people to accept those policies in the short and medium term. Lastly is responsibility, defined as ‘a person’s willingness to be held accountable for resources — that is, their willingness to take responsibility for the legal authority that comes with the position.’³⁰ Applied to states, this means the willingness of the leadership to ensure the control mechanisms are properly equipped to provide delivery of public good and services to the vast majority of society, the vast majority of the time. Put differently, responsibility in this context is the government’s vision of itself as to its responsibilities to the population. If state has the competence and authority to lead, but does not see its responsibilities for service provision as the people understand the services they require, there is a disjuncture that can set the conditions for a triggering event.

If the governed do not consent to being governed one can expect events like protests, the organization of militias to defend common interests, up to assassination of public figures. These events represent a challenge to the authority of the state, and all these events appear in the data set. If the governing elite do not take the view that it is their responsibility to provide certain public goods and services to the vast majority of society, despite the broader consent of society to be governed in most other respect, and the capacity provide those services, there is a risk of state instability.

If there is insufficient capacity to provide services, even if regionally contained to an enclave within the state, it is likely that grassroots movements will organize to deliver goods and services locally. This can include religious groups, community groups, or more threatening to stability, organized criminal organization or militias.

6.3 Analysis of Conflict as the independent variable

This section presents an analysis of the data sets where the type of conflict is treated as the independent variable. The purpose is to identify any trends or similarities in the triggers that cause certain types of conflict.

The most important thing to note about the analysis of triggers: they indicate the demarcation between vulnerability and instability. Triggers are events that vulnerable states are particularly

³⁰ Carment, David. *Assessing state failure: implications for theory and policy*. in Third World Quarterly. Vol 24, no 3. pp 407-427.

sensitive to that can lead to instability. The PITF data set assigns values based on the number of annual fatalities over a given year. The values used in the data set for this work are an average for the duration of the period of conflict or instability based on PITF's research methodology.

The data do not suggest that there is any linkage between ethnic conflict and any type of trigger. The types of triggers in cases of ethnic conflict (stand-alone, or as part of a complex conflict) vary immensely. There are cases of ethnic conflict where it is the single type, although the majority of cases of ethnic conflict are complex (more than one type of conflict). It is more likely that ethnicity is something that is manipulated to ensure maximum participation in one's party to a conflict. Leaders will seek to generate ethnic conflict in order to increase cohesion among the group and bring themselves more power and influence.³¹ Ethnicity is therefore more likely reflective of a conflict in an area with clearly divisible ethnic lines, not necessarily an indicator of stagnant bloodlust between opposing groups. A number of studies have shown that ethnic identities are much less fixed over time and that frequency and intensity of ethnic conflict vary more than primordialist theory would have it.³²

In two thirds of the cases of revolution (regardless if coded complex), the trigger was political in nature. Events such as assassinations, coups, elections are political in nature representing an assault on power, or on the government's attempt to quash dissent. Most cases of revolution are complex cases coded as other conflict. It is an ambiguous indicator due to the mix of types of conflict and triggers; though suffice it to say the triggers will probably be political in nature. We can reasonably say that revolutionary conflict is possible when there is significant opportunity for a politically charged triggering event.

Regime change is coded as complex in the majority of instances it is observed. The most striking thing is the most serious cases (in terms of violence) of regime change are not the result of initiative: they are exclusively the result of opportunity or reaction. This could indicate uncertainty about plans for the future if regime change causes more violence; if true this could help explain the security dilemma, because many of the cases exhibiting a high score in regime change, and the result of opportunity or reaction also have ethnic violence scores. The ethnic violence score tends to be far lower (about half in most cases) than the regime change score in these cases.

The cases of genocide in the data set always coincide with ethnic violence, with the exception of Syria and China. However, those cases are described as politicides in the PITF guidebook, or the wholesale assassinations of political opponents based only on their political beliefs, affiliation or intent. All cases of true genocide co-occur with ethnicity, not surprisingly. Genocide and politicide differ only in terms of who is targeted by violence. An individual can change their political affiliation and cease challenging the authority of the leadership in the case of Syria and China, presumably excluding themselves as targets of intimidation. In the case of genocide it is through ethnic identification. This is significant to note, as it is possible to fight an enemy on their ethnicity, but have no desire to exterminate that race as part of your political goals. There is

³¹ Carment, David. *Exploiting Ethnicity: Political Elites and Domestic Conflict*. In *Ethnic Conflict*. Vol 28 (4) – Winter 2007.

³² Jentleson, Bruce W. *The Defining Challenge for Global Community*. In *Ethnic Conflict*. Vol 28 (4) – Winter 2007.

considerable overlap between the two; ethnicity does not necessarily entail genocide, though genocide always entails ethnic conflict.

The aggregate score for each case of state instability was calculated adding all the average scores. At this stage no patterns are identified between the aggregate severity of a conflict as its triggers or motivation for those triggers.

6.4 Analysis of Triggers as the independent variable.

This section presents an analysis of the data set as in section 6.3, but relying on the triggers as the independent variable, not the type of conflict. The numerical figures in the tables below are averages of the PITF data. The year indicated is the year PITF coded as the start year of the conflict. Each year the conflict continued, it was assigned a value for any of the four types of conflict observed. For simplicity, the values are the average value, derived by adding all the assigned values, and divided by the number of years the conflict lasted; this explains the decimals, as PITF only codes whole numbers. The figures chosen were those that applied to level of violence in terms of fatalities where applicable. This method was applied to derive all the figures displayed in this section's tables. All the results are presented alphabetically by country

Arbitrary Arrests

Arbitrary Arrests are unlikely to lead to genocide or regime change. Extending even a modicum of due process to a group slated for extermination is illogical when the group will be killed regardless of the procedural underpinnings. During the Holocaust of WWII and more recently in Rwanda, and to a lesser extent Bosnia, there was hasty, ill-planned effort put toward hiding the truth, indicating a willingness to hide the problem quickly rather than completely. Engaging in arbitrary arrest tends to be a systemic practice, most notably in Guatemala in 1966, and recently in Thailand in 2004, used by the state to intimidate potential rivals to its power. Based on the trigger data campaigns of arbitrary arrest lead to ethnic violence and revolution. In both Guatemala and Thailand the arrests were based on ethnic lines, possibly resulting in retribution based along those lines. This is not to identify arbitrary arrests as the cause, but the public knowledge of the abuse of state power causes a reaction from the people. Because of the significant capacity of state required to implement a regime of arbitrary arrest, execute people and make them disappear, a counter-attack from the disenfranchised group to the magnitude of genocide is unlikely. There is also no guarantee that all the perpetrators within the apparatus of state are from a single ethnic group to be targeted. Politicide is feasible, though there is no evidence of such in the data set. Revolution is also a logical goal, to establish a new type of government where arbitrary arrest is not allowed to happen again. The data are presented in Table 2.

Table 2: Arbitrary Arrest

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Guatemala	1966	Arbitrary Arrests			X	Revolution	0	1.86	0	0
Thailand	2004	Arbitrary Arrests		X		Ethnic	1	0	0	0
United Kingdom	1971	Arbitrary Arrests			X	Ethnic	0.75	0	0	0

Armed Attack

Armed attack is very difficult to identify any trends or patterns for. It is the triggering event for all types of conflict individually, and complex conflict. The only clear tendency is for armed attacks to be initiative or opportunity attacks rather than reactive. Maintaining the element of surprise or uncertainty is a possible motivator; if your enemy is disoriented or off-balance he/she would therefore be less likely to muster an effective response. The less effective the predicted response, the greater the incentive to strike while the opportunity for success is perceived to be greater. For an attack to succeed, weapons, soldiers, intelligence and a good plan are required: that does not happen accidentally. It is possible that the difference in coding represents only timing; an opportunity that presents itself could be fleeting and encourages launching an attack that was vaguely planned. The cases of decolonization as a contributing factor are about 50/50. The mix across the type of conflict is inconclusive as well. As the vaguest trigger, it is not surprising that its tendencies lack precision. The data are presented in Table 3.

Table 3: Armed Attack

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Angola	1975	Armed Attack		X		Complex	1.75	1.9	1	3.19
China	1956	Armed Attack		X		Complex	1.75	0	4	0
Congo Kinshasa	1977	Armed Attack		X		Complex	1	0	1.75	0
Egypt	1992	Armed Attack	X			Revolution	0	0.5	0	
Ethiopia	1999	Armed Attack		X		Ethnic	1.5	0	0	0
Guinea	2000	Armed Attack	X			Revolution	0	1	0	0
Haiti	1999	Armed Attack			X	Regime	0	0	0	1
India	1967	Armed Attack	X			Ethnic	2.5	0	0	0
India	1983	Armed Attack	X			Ethnic	1.75	0	0	0
Kenya	1991	Armed Attack	X			Ethnic	1	0	0	0
Mali	1990	Armed Attack	X			Ethnic	0.5	0	0	0
Moldova	1992	Armed Attack	X			Ethnic	2	0	0	0
Nepal	1996	Armed Attack	X			Complex	0	1.5	0	2
Papua New Guinea	1989	Armed Attack			X	Ethnic	0.66	0	0	0
Rwanda	1963	Armed Attack			X	Complex	2.4	0	5	4
Rwanda	1990	Armed Attack	X			Complex	3	0	1.13	0
Senegal	1992	Armed Attack	X			Ethnic	0.88	0	0	0
Sierra Leone	1991	Armed Attack		X		Revolution	0	1.72	0	0
Solomon Islands	2000	Armed Attack			X	Regime	0	0	0	3
Somalia	1988	Armed Attack			X	Complex	1.5	2.6	1.5	3.2
Yemen	2004	Armed Attack		X		Revolution	0	1	0	0

Assassination

The political killing of one person, typically in public, is a decidedly symbolic act. The killing of one individual is often not as important as a successful attack on that individual's office or position in society. The death of one person leading to violence and state failure suggests that in cases where assassination was the trigger the society was rife with tension and potential for conflict before the event occurred. Given the small data set, no definitive conclusions can be

drawn from the data, aside from a very even distribution across motivation and type of conflict. The reaction case is not strictly applicable, as it was a state reaction to an attempted assassination on the President. All this to suggest assassination can occur regardless of the structural factors present in a state, and the specific intentions of the perpetrators. The data is show in and Table 4.

Table 4: Assassination

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Bangladesh	1974	Assassination		X		Complex	1.13	0	0	4
Burundi	1963	Assassination		X		Regime	0	0	0	2.75
Colombia	1984	Assassination		X		Revolution	0	1.86	0	0
Peru	1982	Assassination	X			Revolution	0	1.68	0	0
Romania	1989	Assassination	X			Revolution	0	4	0	0
Syria	1981	Assassination			X	Genocide	0	0	2.75	0

There are also plenty of examples of assassinations that did not cause state failure: in fact, many more than did cause state failure. The important thing to note is the national importance or scope of many of the assassinations in Table 5: many are local (the data is coded chronologically). Presumably the failure would be locally contained if the attack was directed at someone of mostly local celebrity and importance to the political process. We can reasonably conclude that there must be a certain level of tension present within a state before state failure is the result, and that the meaning of the event needs to be exportable across a state, not regionally contained. In the cases of heads of state being killed, it is possible that the excess competence/capacity of the central state is such that the leader's death can be accounted for with military/police presence, or other emergency measures to control the escalation of tension on behalf of non-state groups. The events below most likely raised state tension, though due to their inclusion on the non-failure list, insufficient to provoke state failure.

Table 5: Assassinations, no failure

Country	Date	Event
El Salvador	1980	Chechen President Akhmat Abdulkhamidovich Kadyrov killed by a bomb during a WWII commemorative parade.
United States	1981	Attempted assassination of Ronald Reagan.
Bangladesh	1981	Ziaur Rahman, failed coup attempt
Egypt	1981	President Anwar Sadat is assassinated during a military parade.
Philippines	1983	Assassination of Benigno Servillano "Ninoy" Aquino, Jr, opponent of Marcos
India	1984	Prime Minister Indira Ghandi assassinated by he Sikh bodyguards
Sweden	1986	Swedish PM Olof Palme shot in the back while walking home.
Pakistan	1988	President of Pakistan, Gen. M. Zia ul Haq is killed in an aircraft bombing
India	1989	Prime Minster Rajiv Gandhi assassinated by LTTE.
Israel	1995	Israeli PM Yitzhak Rabin shot after a peace rally. The peace process broke down as a result.
Albania	1998	Opposition leader Azem Hajdari shot dead.
Albania (Kosovo)	1998	Leader of ethnic Albanian government in Kosovo Ahmet Krasniqi killed outside his home
Russia	1998	State Duma deputy Galina Starovoitova shot in her apartment building in St. Petersburg by two unknown attackers
Armenia	1999	Deputy Defence Minister Vagram Khorkhoruni shot dead outside his home in capital Yerevan.
Corsica (France)	1998	The French government's most Senior Rep, Prefect Claude Erignac was killed by two gunmen
Kosovo	1999	Enver Maloku, head of ethnic Albanian information centre in Kosovo, shot near his Pristina home.
Slovakia	1999	Former head of gas industry and economy minister, Jan Ducky, shot dead outside his home in Bratislava
Niger	1999	Niger's president, Ibrahim Bare Mainassar ambushed and killed by dissident soldiers at the airport in the capital
Italy	1999	Massimo D'Antona, adviser to Labour Minister, shot in Rome. Red Brigades allegedly claimed responsibility.

Country	Date	Event
Turkey	1999	Former culture minister/prominent secularist academic Ahmet Taner Kislali killed in bomb attack.
Armenia	1999	Artsun Margaryan, cmdr of Interior Ministry forces/deputy interior & security minister, shot dead: body dumped.
Paraguay	1999	Vice President Luis Maria Argana was gunned down as he drove to work in the capital, Asuncion
Northern Ireland	1999	Rosemary Nelson, an attorney who represented Catholic in volatile cases killed by car bomb leaving home.
Armenia	1999	Gunmen storm parliament and kill PM Vazgen Sarkisian, Speaker, Deputy Speak, and Finance Minister
Yugoslavia	2000	Yugoslav Defence Minister Pavle Bulatovic shot dead by unidentified attacker in a Belgrade restaurant
Montenegro	2000	Goran Zugic, security advisor/close ally of President Milo Djukanovic, shot in courtyard of his apartment block
Spain	2000	Gunman shoots city councilor Jesus Maria Pedrosa in the city of Durango, near Bilbao.
Spain	2000	Former Health Minister Ernest Lluch shot dead in Barcelona. Police blamed ETA.
Poland	2001	Jacek Debski, former sports minister has been killed in the Polish capital by a gunmen.
Russia (Chechnya)	2001	Adam Deniyev, pro-Moscow Chechen official, killed by bomb blast at private TV studio south of Grozny
Spain	2001	Manuel Gimenez Abad, President of ruling Popular Party (PP) in the NE Aragon region, gunned down in Zaragoza
France (Corsica)	2001	Prominent nationalist Francois Santoni shot leaving wedding reception in the southern village of Monacia d'Aullene
Spain	2002	Juan Priede, local Socialist party politician, gunned down in the northern Spanish town of Orio by two assailants.
Italy	2002	Government adviser Marco Biagi, strong proponent and author of labor reform shot by 2 gunmen outside his home
Holland	2002	Dr Wilhelmus Simon Petrus Fortuijn (gay, charismatic opposition leader) was killed during the elections in 2002.
Holland	2002	Dutch anti-immigrant politician Pim Fortuyn, expected to win big share of the vote in May 15 elections, shot and killed
Serbia	2003	PM Zoran Dindic shot while descending staircase. Emergency power declared, and instability ensued.
Russia (Chechnya)	2004	Chechen President Akhmat Abdulkhmidovich Kadyrov killed by a bomb during a WWII commemorative parade.
Ukraine	2004	Kethesh Loganathan, human rights advocate/deputy head of the government peace secretariat killed by gunmen
Venezuela	2004	State Prosecutor Danilo Anderson killed by radio controlled bomb while driving to a post-grad lecture.
Kyrgystan	2005	Parliamentary leader Bayaman Erkinbayev was shot. Played a key role in overthrow of the previous govt.
Dagestan	2005	Deputy Minister of the Interior Magomed Omarov shot. His ministry allegedly prevented another Beslan.
Lebanon	2005	Billionaire Former PM (two stints) of Lebanon Rafik Bahaa Edine Hariri killed when his motorcade was attacked.
Lebanon	2006	Pierre Gemaye, a scion of a Christian political dynasty was shot in his car.
Israel	2006	Leader of Palestinian intelligence was badly wounded in bombing at his heavily guarded HQ in Gaza.
Russia	2006	Mayor of the Dzerzhinsky region of Moscow, Viktor Ivanovich Dorkin, shot walking home.
Japan	2007	Itcho Ito mayor of Nagasaki was killed by a member of an organized crime group.
Afghanistan	2006	Hakim Taniwal, Paktia Province governor, the highest-ranking official to be killed since the 2005 insurgency began
Afghanistan	2006	Safia Ama Jan, director of Afghanistan's Ministry of Women's Affairs for the Kandahar Province.
Nigeria	2006	Ayodeji Daramola, leading candidate for governor in the southwestern state of Ekiti
Nigeria	2006	Funsho Williams, a candidate for governor of Lagos was found strangled
Russia	2006	Andrei Kozlov and driver gunned down in an apparent contract hit outside a Moscow soccer stadium
Russia	2006	Anna Politkovskaya: critical journalist (Chechnya, Putin's increasing power Russia) found shot.
Sri Lanka	2006	Gen. Kulatunga: COS, Sri Lankan Army. A motorcycle suicide bombed killed Kulatunga en route to a camp.
Sri Lanka	2006	Kethesh Loganathan, human rights advocate/deputy head of the government peace secretariat killed by gunmen
Pakistan	2007	Attempted assassination of Benazir Bhutto
Pakistan	2007	Successful assassination of Benazir Bhutto

Coups

Coups, or attempted coups, represent a rival faction, often with support of the military or elements of the military, trying to wrest power from the government in place. Using the PITF classification, all fall under regime change except one (Iraq 1959), and even this case involved the military falling under one characterisation. China (1966) is not purely a coup, but is coded as one because it was Mao's effort to reconsolidate his power. Doing so from within the establishment puts it into a grey area, and is closer to coup than any of the types. This is not simply a restatement of the PITF classification. Government leadership works to maintain the authority

over the apparatus of government, and seek to maintain as sustainable a system of government as possible. A coup is a failure in governance and when successful a replacement of government. Coups are not necessarily a failure of the state in terms of service delivery however. Despite the violent toppling of one set of elites in favour of another, it is possible for service delivery to continue during that time. This could be the result of a very fast change of power such that by the time the announcement is made the coup is over, with life continuing more or less as normal. It could also be that the people's will is more or less represented by the usurpers' actions.

Just over half of the cases of coups observed are opportunities, the other half split almost equally between reaction and initiative. This is similar to armed attack, in that opportunity is prevalent. They all involve disenfranchised parts of the military, or leaders who have significant ties or access to military power. None were the result of secessionist movements. This is logical because a coup is an attempt to take control of the state that presently exists, not declare independence for a portion of it. Presumably if that were the goal, potential coup leaders would secede: there is no shortage of examples of this. Over half of the coups had external support. This does not necessarily indicate the attempt of one state to dominate the other. More likely it indicates a safe haven across borders where supplies and men can be laid in wait. This seems plausibly characteristic of coups because two cases of internally led coups were islands, where cross-border assistance is impossible. The data are show in Table 6, and are coded alphabetically.

Table 6: Coups

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Algeria	1992	Coup			X	Revolution	0	2.07	0	3
Cambodia	1997	Coup	X			Regime	0	0	0	3
Central African Rep	2003	Coup	X			Genocide	0	0	0	3
Chile	1973	Coup		X		Complex	0	0	1.75	3
China	1966	Coup	X			Complex	0	4	3.5	0
Comoros	1995	Coup		X		Regime	0	0	0	2
Congo Brazzaville	1997	Coup		X		Complex	0	2.3	0	4
Congo Kinshasa	1960	Coup		X		Complex	3.83	2.33	1	2.33
Cuba	1952	Coup		X		Regime	0	0	0	1.33
Cyprus	1974	Coup		X		Complex	2	0	0	4
Dominican Rep	1963	Coup		X		Complex	0	2	0	1.75
Equatorial Guinea	1969	Coup	X			Complex	0	0	1.27	3
Fiji	1987	Coup		X		Regime	0	0	0	1
France	1958	Coup		X		Regime	0	0	0	2
Guinea-Bissau	1998	Coup		X		Complex	0	2	0	4
Haiti	1991	Coup			X	Regime	0	0	0	3
Iraq	1959	Coup		X		Revolution	0	2	0	0
Ivory Coast	2002	Coup			X	Complex	1.25	1	0	3.25
Niger	1996	Coup	X			Regime	0	0	0	3
Panama	1968	Coup		X		Regime	0	0	0	3

There are also many cases where coups (attempted or successful) did not cause state failure. It is not a simple case of successful coups causing state instability, while failed coups do not. Success

of the coup is not a guarantor or detractor of instability on its own. This is significant because it indicates that coups can happen without causing violent conflict of a sufficiently high volume to make the PITF list. There are far more cases of coups that didn't cause state failure, than cases that did manifest state failure. The table below (

Table 7: Coup, *no failure*.) indicates coups/attempted coups that did not lead to state failure, and is presented chronologically.

Table 7: Coup, no failure.

Country	Year	Event	Successful?
Bolivia	1980	Coup launched with help of mercenaries. Led to very brutal chapter in history	yes
Turkey	1980	Military Coup: intervention during instability and demonstrations	yes
Liberia	1980	Military Coup: opposition legalized, and then launched coup and killed the President	yes
Guinea Bissau	1980	Military Coup: accused leader of corruption and mismanagement	yes
Suriname	1980	Military Coup: group of army NCOs seized control of the government	yes
Bangladesh	1981	Military rebels storm and kill president: put down by rest of army	no
Spain	1981	Rogue National Guard elements storm Parliament. Take 350 MPs hostage	no
Ghana	1981	Military coup: air force officer overthrows constitutional government	yes
Seychelles	1981	Group of mercenaries botched attempt to overthrow government	no
Poland	1981	Military coup: martial law, army and special police to seize the country	yes
Kenya	1982	Air force officers launch coup.	no
Nigeria	1983	Second republic president overthrown by military	yes
Grenada	1983	Marxists kill PM, take government. US invades	Initially, then not
Cameroon	1984	Palace Guard Revolt: fought back by elms still loyal to the government	no
Mauritania	1984	Bloodless coup led by Army COS	yes
Uganda	1985	Army did not take well at attempt to arrest them. Launched coup	yes
Nigeria	1985	Leader who took power by coup in 1983 deposed by coup. Ironic, no?	yes
Philippines	1987	Midnight raid on President's residence.	no
Burma	1988	Coup crushes Four Eights	yes
Philippines	1989	Another failed coup by same leader as 1987. Bigger, air support, US help: still failed	no
Trinidad & Tobago	1990	Jamaat Al Muslimeen attempts coup. Raids police station, storms parliament.	no
Nigeria	1990	Failed military coup attempts to break unitary control	no
Thailand	1991	Military coup: bloodless coup.	yes
Venezuela	1992	Hugo Chavez leads BMR200 to abortive coup in Caracas	no
Turkey	1997	Military uneasy about Islamic direction Turkey was taking	yes
Pakistan	1999	Refuses to be cowed, takes power, exiles PM to Saudi Arabia	yes
Ivory Coast	1999	Coup leader capitalized on sentiments of mutinying soldiers	yes
Fiji	2000	Protest led to the gates of parliament, and deposing the government	yes
Ecuador	2000	Pres Jamil Mahuad overthrown by group with strong indigenous support	yes
Venezuela	2002	Coup against Chavez. Pedro Carmona installed for 48hrs. Chavez reinstalled	Initially, then not
Mauritania	2003	Attempted coup launched: fails	no
Sao Tome & Principe	2003	Military launched coup while President is in Nigeria	yes
Philippines	2003	Right Wing Jr.Officers known as Magdalo Group botch coup	no
DRC	2004	Seized communications towers, a radio station, and failed to consolidate.	no
Chad	2004	Element of military began protesting, with intent of killing President	no
DRC	2004	Second attempt that year.	no
Equatorial Guinea	2004	Mercenary looking to launch coup in recently rich oil state	no
Togo	2005	Coup legalized by parliament, but not international community	yes

Country	Year	Event	Successful?
Nepal	2005	Government overthrown, parliament dismissed, heavy media censorship	yes
Ecuador	2005	VP took power from President amid protest and internal dissent	yes
Mauritania	2005	Maaouya Sid'Ahmed Taya overthrown by military officers.	yes
Philippines	2006	President Macpagal-Arroyo targeted for removal. Led to state of emergency.	yes
Chad	2006	United Front for Democratic Changes tries to overthrow Idriss Deby	no
Thailand	2006	Army orchestrates coup while PM Thaksin Shinawatra out of country	yes
Madagascar	2006	Militants alleged to launch coup against Pres. Marc Ravalomanana	no
Cote D'Ivoire	2006	Army claims to have foiled a coup targeting President Laurent Gbagbo	no
Fiji	2006	Military overthrows Pres Josefa Iloilo and PM Laisenia Qarase	yes
Laos	2007	Alleged attempt at government foiled	no
Philippines	2007	Rebels storm hotel in attempted coup. Army intervenes.	no

Elections

The 'elections' trigger provides reasonably clear results of what happens when elections are promised and cancelled, boycotted, the results cancelled, manipulated, etc. The only case of decolonization associated with elections resulted in cancellation and ethnic violence. The promise of reform that is revoked produces the reaction category below. The data are presented below in Table 8, and coded alphabetically. The counter-factual to elections is difficult to compare, as every election or controversial electoral event would qualify as a case of non-failure. The absence of violence after a disputed election, or during the lead up will not present as a trigger, and these events are so frequent as to be meaningless for comparison.

Table 8: Elections

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Albania	1996	Elections			X	Regime	0	2	0	1
Angola	1992	Elections			X	Complex	2.75	2.66	2.95	1
Armenia	1995	Elections		X		Genocide	0	0	2	0
Bosnia	1992	Elections			X	Complex	3	0	3.4	3.25
El Salvador	1977	Elections			X	Regime	0	0	0	1
Iran	2004	Elections			X	Complex	1.85	1.16	0.7	4
Morocco	1975	Elections			X	Ethnic	2	0	0	0
Nigeria	1964	Elections		X		Regime	0	0	0	3.33
Zambia	1996	Elections	X			Regime	0	0	0	1

Killings

Killings in this case are unpremeditated, and have little certainty. These seem to be the outlier in the data set, as there is no common vein. There cannot be: these actions are taken at the individual level, such as the killing of two Turks by police on Cyprus that set off ethnic conflict. Without structural data it is impossible to know, but these are likely the result of community outrage and interpretation of a broader intention stemming from a more or less random act. The conflict that results is complex and all magnitudes but one are equal to or exceed 2.5. The data set however is

too small to say anything conclusively. The current evidence suggests a political rallying behind non-political fatalities. The data are presented below in Table 9, and coded alphabetically.

Table 9: Killings

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Burundi	1988	Killings		X		Complex	1.75	0	2.5	4
Cyprus	1963	Killings			X	Complex	2	0	0	2.33
Dem Rep Congo	1992	Killings		X		Complex	2.3	2.6	0	3

Protests

Protests are always coded as reactions. This should not be surprising as protests by their very nature are a response to a perceived injustice. Riots can be planned, but they are in an essence a response to government policy: mustering the population support for a riot would be difficult if the people did not have a grievance or feeling of being hard-done-by, or a single event around which to rally. Protests are included in the data set so frequently because of the potential escalation involved in demonstrations. Confrontations can easily provoke security forces to use excessive force, giving protestors propaganda by deed to garner additional support for future protests. The data are shown below in Table 10, and are coded alphabetically. Like elections, the occurrence of a protest that does not manifest as a triggering event are so common they lack the discretion required of a triggering event.

Table 10: Protests

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Afghanistan	1978	Protests			X	Complex	2.2	2.5	3.7	3.75
Belarus	1995	Protests			X	Regime	0	0	0	1
Cambodia	1970	Protests			X	Complex	0	2.2	0	0
Chad	1965	Protests			X	Complex	1.76	0	0	3.3
China	1988	Protests			X	Ethnic	1.63	0	0	0
Hungary	1956	Protests			X	Complex	0	2	0	3
Iran	1977	Protests			X	Regime	0	0	0	1
Israel	1987	Protests			X	Ethnic	1.05	0	0	0
Lesotho	1998	Protests			X	Complex	0	1	0	3

Secession

Secession movements are active choices for a group to separate from the state of origin. They are an assertion that a group would be better served as the custodian of its own responsibility and authority than another power. They are difficult because an open statement of willingness for secession is not likely to be the first event on the road to secession. There may be riots, violence, etc in the lead up, though according to the data set not sufficient to push a state into failure.

Not surprisingly they are coded as initiative or opportunity (with one exception and it is open to debate). The case of Croatia in 1991 is coded as reactive because it was part of the secession of two republics, Croatia and Slovenia, in a very narrow time frame. It is also coded as reactive

because it appears the violence was the result of a diaspora who wanted Croatia to remain part of the former Yugoslavia. The diaspora reacted to the declaration of secession, and prepared for violence. The instability stemmed from the opportunity of the end of the cold war as the weakening of the Yugoslav state. The data are shown in Table 11, in alphabetical order.

Table 11: Secession

Country	Date	Trigger	Initiative	Opportunity	Reaction	Type	Ethnic	Revolution	Genocide	Reg Chng
Azerbaijan	1991	Secession		X		Complex	1.42	0	0	4
Croatia	1991	Secession			X	Ethnic	1.4	0	0	0
Ethiopia	1961	Secession	X			Ethnic	2.25	0	0	0
Georgia	1991	Secession		X		Complex	1	1	0	0
Indonesia	1949	Secession	X			Revolution	0	1.3	0	0
Tajikistan	1992	Secession	X			Revolution	0	1.85	0	0
Yugoslavia	1991	Secession		X		Complex	1.5	0	0	2

6.4.1 Similarities

There are certain commonalities among triggers, either in terms of their characterization or type of conflict they lead to individually, and between multiple triggers

- In terms of responsibility, coups are instituted by the military or rival government factions with their own armed faction. Protests are organized by the people, and are always a reaction to something. Revolutions are typically the work of rival government factions/military, but people have risen up before. Ukraine and Romania are good examples of the people taking power into their own hands to foment political change. This was undoubtedly influenced by the desire for Ukrainians to stake their formative independence from Russia, and Romanians wanting their independence as the Soviet Union loosened its grip on its client states.
- Elections and protests are difficult to compare. Cases where neither resulted in state instability nor failure are too numerous to compare to cases where failure did occur. The most likely correlation is the low IST as indicative of a society being able to absorb these events. The disputed US election of 2000 is an example of election, and the multiple G8/G20/SPP/WTO protests in the west over the past ten years or so are examples of elections and protests that did not lead to state failure in countries with low IST that could have been serious with a higher IST.
- The conditions under which triggering events produce similar results are unclear, as is the context leading to the triggering event. This work did not include a sufficiently thorough analysis of the histories of failed state, and no structural or proximate data were available to measure in levels of tension prior to triggers. Context plays an important role in the qualifying of triggers. We can reasonably conclude that triggers occur as the result of the context in which they occur, and influence the future context: for this reason further research is critical to understanding how and why these events shape the IST.

6.4.2 Differences

Without structural data to examine it is impossible to know for certain what effect on trajectories structural factors have, though general tendencies can be drawn. The baseline value assigned by the structural factors will determine the 'distance' in the model that instability must raise before instability is met. The higher or lower the value of tension assigned by the structural factors the shorter or longer distances respectively state tension is required to rise to constitute instability. Whether certain structural factors are more like to result in one kind of trigger or not is still unclear, and cannot be known for certain until structural data are analyzed.

The availability of means to wage conflict, or a sudden increase in availability will likely be a significant structural or proximate indicator as to the likelihood of state instability. The index of militarization used by CIFP is a probable factor to consider. Fluctuations in the militarization of society are also significant in denoting upcoming instability. The mass importation of machetes into Rwanda in 1993 is an example of the availability of arms feeding instability. The traffic of small arms into Africa to places like Somalia, Sierra Leone, Liberia, etc, is also consistent with the notion that the availability of weaponry contributes to state instability. The transfer of arms across a state is probably significant as well: the looting of the former Soviet armories after the dissolution of the Soviet Union, and the Serb purge of non-Serb personnel and weapons from the Former Yugoslav series of decentralized armouries in Bosnia are also significant examples.

Triggering events can occur as a result of a stunted political process. 'Elections' is the coded trigger for Albania, Armenia and Bosnia, while 'secession' is the trigger for Azerbaijan, Croatia, Georgia, Tajikistan, Yugoslavia. All of these places experienced ethnic conflict as a result of their old power structures decaying and being replaced with new, nationalistic structures at the end of the Cold War. The attempted transition from authoritarian governments to more democratic institutions led to violence, and is a consistent theme with all these states, yet are coded differently. To make any conclusions with certainly more research into the context is necessary. Regionalism is a possible consequence of context: the breakup of the Soviet Union and African Decolonization allowed a great deal of state instability to occur without the previous colonial governments. Does this mean it is a function of the intrinsic geography, or merely the political context of who occupies it? This can quickly become a debate about resource distribution as a function of geography, and what impact that has on the economic and political context of state.

It is difficult to tell for sure, though models that include structural factors analysis in their predictive models tend to enjoy reasonable post-dictive accuracy. Structural factors are basically context writ large, and will likely become focused within proximate causes. The consistent theme with respect to trigger differences is that context will dictate the significance of the event. The likelihood of conflict and state failure resulting from triggers is suspected to be linked directly to the IST. The issue should be revisited when more data is available to determine possible causes of difference in the consequences of triggering events. It is difficult to identify the source of differences without additional data.

6.4.3 Trends

The future cannot be conclusively predicted using this model, nor can triggers indicate the type of conflict that will occur with any great certainty at this stage. If taken in conjunction with structural factors and root causes the missing element of context can be highlighted.

Of all the cases of coups or attempted coups, 28.9% of cases state failure resulted. For assassination or attempted assassination, 9.5% of cases ended in state failure. These numbers can be somewhat misleading however. The importance or prominence of individuals on the national stage is not weighted for the assassination figures. The cases where assassination did lead to state failure tended toward very prominent people, such as the Justice Minister of Colombia or the attempt on the President of Syria. To be sure, there were attempted assassinations on people like the President of the United States, the President of Pakistan, and a successful attempt on the PM of Serbia, and a long list of Eastern European opposition leaders. There were also assassinations of local elders, tribal leaders and single issue advocates, whose deaths while tragic are highly unlikely to focus the attention of the whole state. These assassinations did not appear on the state instability of failure data from PITF, yet state leader's assassinations appeared on the 'did not fail' data. From this we can safely conclude the assassination of locally prominent people is insufficient to cause state failure, and national status is not sufficient, though it is necessary to cause state failure.

The cases of complex failure are particularly difficult to unwind. There are 7 cases of complex state failure scoring above 8 out of a maximum possible 16. They are Afghanistan – 1978, Rwanda – 1963, Bosnia – 1992, Congo Kinshasa – 1960, Angola – 1992, Somalia – 1988, Burundi – 1988. Among the triggers are two elections, two armed attacks, one protest, one 'killings', and one coup. The countries triggered by elections have higher values individually for genocide than any of the other conflicts. It is by no means conclusive given the sample, and possibly an area for further research: how much state instability does electoral mismanagement cause? And moreover, what social conditions lead to electoral mismanagement?

However, the vast majority of cases of state instability do not result in this level of state failure on the order of Rwanda or Bosnia, shown in Figure 5.

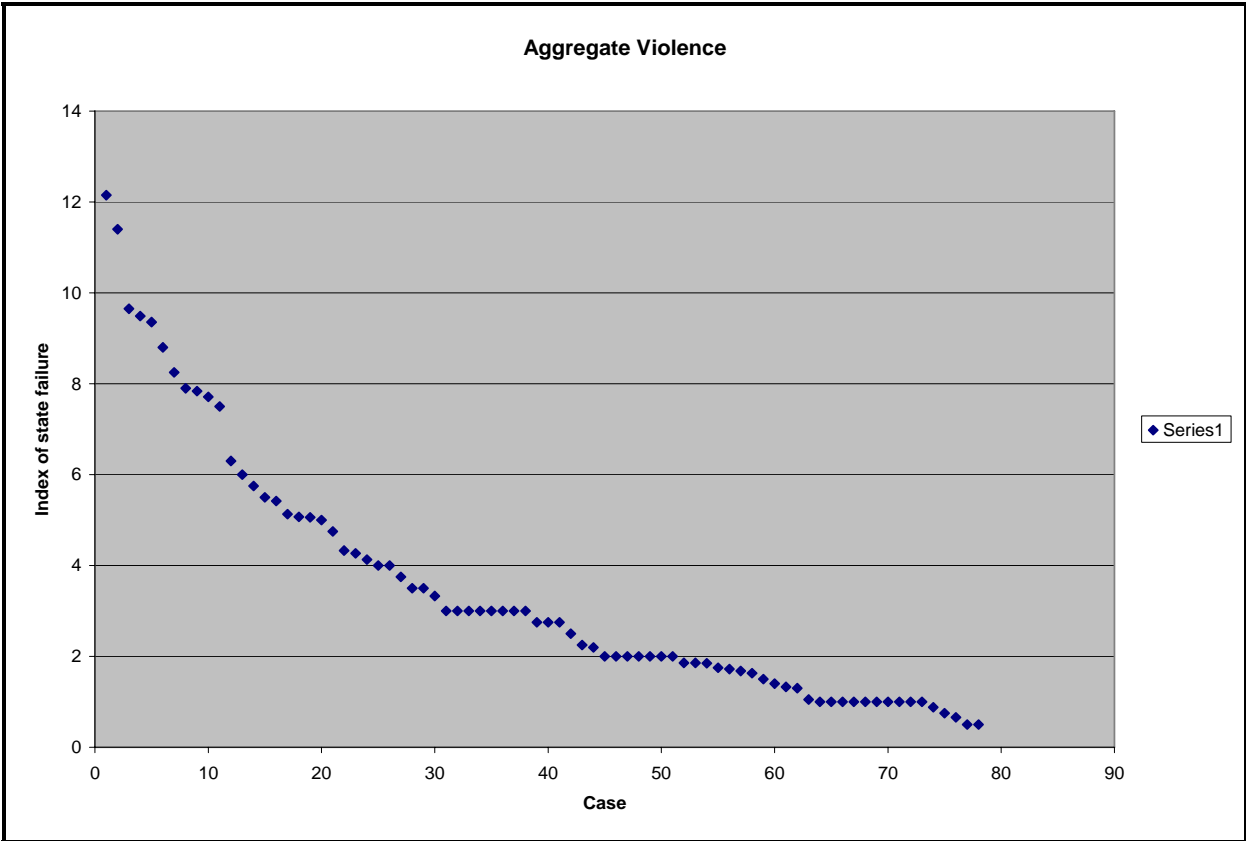


Figure 5: Aggregate Violence in Cases of State Failure

The scale used to measure violence at each interval is based on a four point scale (with the single exception of the magnitude of Genocide in Rwanda in 1963). Based on this table approximately 75% of cases of state instability, *measured in aggregate terms*, in this data set fall below 4, the maximum value a single variable can be assigned. This is encouraging when we consider the number of cases. It in no way minimizes less violent cases of state failure, but shows that the tendency is not toward massive bloodshed. If we accept five as the maximum possible value a variable can have, the portion of states below the maximum value for one variable increases to approximately 85%. To more accurately assess trends, comprehensive structural data is needed.

7 Conclusions

This project should be as part of a continuum - an on going effort to exploit statistical information (capturing key features of a state's political, economic, social and cultural environment) in order to understand and predict state failure. As a number of distinguished authors have observed, while structural and proximate factors have been studied, triggers have been largely neglected. A systematic analysis is overdue. This study represents a start.

Estimations of state vulnerability based on analysis of structural conditions are useful; however, an early warning model which integrates skilled interpretation of events into the risk assessment would likely prove more policy relevant. An appreciation of triggers might serve two purposes. It could provide insight to event monitors in determining the import of incidents and, secondly, it might inform intervention and de-escalation. Beyond this general observation, a number of other, more specific, findings were reached:

1. To effectively understand what effect a triggering event will have on a state it must be analyzed within the context of the state in which it occurs. Its history, ethnic tensions, economy, history of violence and other factors will all dictate how triggering events affect the index of state tension, and consequently the possibility of state failure. The weighting of the magnitude of events will be the subjective assignment of the analyst. A subjective assessment does not necessarily limit the effectiveness of the model. As the index of state tension closes on the instability or state failure thresholds the more reliance will be placed on the expertise of the analyst, and less of objectively quantifiable data.
2. The index of state tension can be defined, and it will rely on structural data. Defining the threshold of state instability and failure will be difficult. Assigning a single threshold for all states presumes there is a natural level of tension that is unsustainable in all states, when stability appears to be a function of robust institutions and accountable, responsible leadership. It is unclear what data, if any, can be used to derive the threshold at which a state fails. The threshold may be assigned arbitrarily at the onset, then test with different data sets to refine a tendency. It is also unclear if the threshold will be subject to change, like the lines in economic models. Without a validated method for determining the threshold, tension will be monitored with no reference to a tipping point, eroding the precision in the timing of beginning early and urgent warning.

The model is not deterministic; structural factors and proximate causes are subject to change. The level of state tension will decrease proportionally to increases in positive structural factors and proximate causes. The nature of political apparatus will likely indicate the rate at which those structural factors can change. In mature western democracies change tends to be slow, and the leadership personality less important than the office of the head of state and the accountability of the social institutions to that office. In developing democracies leaders are often personally the guarantors of state stability. Changes in the values assigned to structural factors affect the index of state tension and renders the model dynamic and devoid of deterministic bias.

8 Recommendations

The recommendations fall into three categories: general, model refinement and way ahead:

1. Research should continue to develop an integrated model. This work is the first, to the authors' knowledge, that attempts to integrate structural factors, proximate causes and triggers into a single product. Research on triggers is almost non-existent, let alone the integration of all three levels. Due to its unprecedented nature, the development of a functional integrated model is important to further the discussion on predicting state failure.
2. More structural data are required to definitively confirm many of the relationships described in this document and to validate and calibrate the model. The data available for this project allowed for assessment of tendencies and some relationships. For a more thorough predictive model the structural data (and proximate causes if possible) for each case selected should be located to identify the trajectory from structural baseline of tension, through to the triggering event. The intent is to more authoritatively draw conclusions about the behaviour of unstable states.
3. Liaison with Carleton University and further investigation is warranted into the proposal to merge ACL and CAR models.
4. Regression analysis will be used to identify thresholds. In addition, the issue of slope has yet to be addressed. The pace at which instability increases may affect the continuation of instability. Many crises in the data set appear to culminate very quickly, implying that the rate of increase in state tension is significant. The data set constructed from the collateral research for this work coded to time from trigger to state failure in terms of days, weeks, and months. The time elapsed may have an impact on the severity of state failure, but nothing is certain without more research on the slope of tension. More research is required to draw any conclusion.
5. Before evaluating how the data sets will influence the model, a normalized data set is something worth examining. Specifically, to express GDP as a percentage of population, and not as an absolute value. Whether this will change the data in a greatly significant way is unknown, but it will likely provide a nuanced analysis in terms of ranking. This method could be explored for any of the objective measures of structural factors.
6. More events data and research is required to identify and characterize proximate causes, and to consider how to assign appropriate quantitative values to (inherently qualitative) incidents and how to integrate them into the model. This amalgamation of data driven complex system realism and nuanced interpretation of individual incidents and human motivation may require significant effort. This is an area in which encyclopaedism will require supplementation.
7. In due course, the model should allow for the integration of classified material for multiple users in the national security/defence communities. Operational users deal with classified information, and should be able to integrate their own sources into the model so the tool can provide timely, useful, relevant information for their specific needs.

8. The stakeholder community should be engaged more actively to determine the specific needs of prospective users once the model is refined. Once the model is functional and can compute data from multiple sources it should be presented to the user community to assess its usefulness. Potential options for customization can be considered at this time.

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This work examines the nature of triggering events culminating in state failure, and analyzes characteristics in an attempt to determine tendencies and linkages between triggering events and types of conflict. Terms like state, state failure, and trigger are defined for use within the project scope. Existing analytical models are summarized to situate the requirement for a comprehensive model accommodating a consideration of triggers. Conclusions and recommendations provide summations of the project findings and identify options for a way ahead.

A more time-sensitive predictive tool for state failure requires incorporation of proximate causes as a precursor to triggering events. This work provides an analysis of the triggers to state failure since 1955 using data from the Political Instability Task Force (PITF), with a specific focus on post-1990 events as a contribution to development of DRDC's predictive model for state failure. This work is not a manual or authoritative guide. It presents an initial analysis of how structural factors, proximate causes and triggering events could be sewn into a single iterative model for the prediction of state instability and state failure and characterization of triggering events. The overwhelming focus is on the latter.

Ce document examine la nature des événements qui aboutissent à la défaillance d'un État, et il analyse les caractéristiques de ce processus, afin de déterminer les tendances et les liens entre les événements déclencheurs et les différents types de conflits. Les termes comme « État », « défaillance étatique » et « événement déclencheur » sont définis pour les besoins du projet. Les modèles analytiques existants sont décrits brièvement pour souligner la nécessité d'un modèle plus complet qui tient compte des événements déclencheurs. Les conclusions et les recommandations résument les résultats du projet et indiquent les options en ce qui concerne la voie à suivre.

Un outil plus efficace de prévision de la défaillance d'un État doit tenir compte des causes immédiates qui sont les précurseurs des événements déclencheurs. Ce document contient une analyse des événements déclencheurs qui ont mené à la défaillance de divers États depuis 1955. Il utilise les données du Groupe de travail sur l'instabilité politique (GTIP), et il met l'accent en particulier sur les événements postérieurs à l'année 1990, afin de contribuer au développement par RDDC d'un modèle de prévision de la défaillance d'un État. Ce document n'est pas un manuel ni un guide qui fait autorité. Il présente une analyse initiale des facteurs structurels, des causes immédiates et des événements déclencheurs qui pourraient être incorporés à un modèle itératif unique pour la prévision de l'instabilité et de la défaillance d'un État, et il décrit les événements déclencheurs. Il met surtout l'accent sur les événements déclencheurs.

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Weak, fragile, failing and failing states; destabilizing events, proximate causes