

A MACHIAVELLIAN INTERPRETATION OF POLITICAL DYNAMICS

by

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ABSTRACT

A mathematical model of the political and economic interactions of a generic Renaissance Italian city-state was constructed. The modeling methodology was system dynamics and the simulation software utilized was STELLA™. The substantive material focused on Machiavelli's *Discourses*. Machiavelli's writings have proven to be very rich in their description of general system theory and thus are readily modeled.

First, a brief overview of pertinent political philosophy and system theory is presented. This is followed by a discussion of Machiavelli's political philosophy in particular. Next the model structure is presented in a moderately detailed form.

Findings include a discussion of executive policies, effects of exogenous supply shocks on political stability, analysis of policy prospects for executives of varying competence, and discussion of the implications of corruption for the policy maker. Certain unexpected behavior modes are explained and supported with empirical evidence.

Thesis Tutor: John D. Sterman
Associate Professor of Management

Dedication

to my parents, William J. and Phyllis A. Saylor

to Professor John D. Sterman

to the brothers of Theta Deuteron of Theta Delta Chi

to Dr. Michael Seewer

"...an infinite number of people read them (histories) and take pleasure in hearing about the variety of incidents which are contained in them without thinking to imitate them, for they consider imitation not only difficult but impossible... I wish to write...so that those who read these statements of mine can more easily draw from them that practical knowledge one should seek from an acquaintance with history books. "

-Machiavelli

Table of Contents

Abstract	2
Dedication	3
Table of Contents	4
List of Figures	5
Chapter I: Introduction: Political Theory and System Theory	8
1.0 Early Political Philosophers	8
1.1 The First System Theorists	10
1.2 System Dynamics	12
1.3 System Dynamics Insights and Machiavelli's Perceptions	13
Chapter II: Machiavelli's Conception of the State	15
2.0 Machiavelli's Assumptions	15
2.1 Overview of the Model	18
2.2 Modes of Behavior	19
Chapter III: Model Description	21
3.0 Model Scope	21
3.1 Class Conflict and Social Norms	22
3.2 The Legislative Sector	26
3.3 The Role of the Executive	28
3.4 Economic Considerations	30
3.5 Resistance and Rebellion	32
Chapter IV: Findings	39
4.0 The Equilibrium Case	39
4.1 Attempts to Affect State Affairs Through Executive Action	40
4.2 Production Shocks	42
4.3 Analysis of Executive Policy Effects for an Extremely Competent Executive	45
4.4 Corruption and Reform	46
Chapter V: Conclusion	51
5.0 General System Tendencies	51
5.1 Areas for Further Study	52
Bibliography	54
Appendices	55
Appendix A: Graphic Output from Scenarios	55
Appendix B: Detailed Description of Model Structure	104
Appendix C: Listing of Model Equations	135