

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

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