

Jumping on the Bandwagon. The Promise of Pork-Barrel Politics and the Formation of Consensus for Political Regime Switches

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Abstract

When political regime switches happen, the public opinion seems to widely support the switch. This consensus appears to be hidden or non-existing until the regime switch happens. This paper presents a possible explanation of this puzzle based on the (implicit) promise of the alternative regime to reward its own supporters at the moment of the switch. Some normative conclusions are presented.

1 Introduction

One of the most interesting aspect of the rise of dictatorships and democracies is their ability to often create consensus towards them before capturing power. Many of the most violent and repressing dictatorships— notably the fascists dictatorships of Hitler and Mussolini— managed to seize power by means of mostly democratic elections, and though cases of frauds have been proved, a large part of the population was indeed supporting the Fascist Party and the Nazi Party before they seized the power. The same might be said about the consensus towards the ending of such regimes or others in more recent history, notably the communist regimes in Eastern Europe (Kuran 1995). It appears therefore that at the time of a regime switch there exists consensus towards it. On the other side it has been often noticed (Kuran 1987, 1995) that the consensus for the new alternative regime is formed in a relatively short amount of time apparently independently of the occurrence of any particular event. The causes of the fall of the Soviet regimes in Eastern Europe, for example, have

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most commonly been linked to some systemic problem within the Soviet system itself, while the events of 1989-1994 do not appear to have been a response to an event occurring in the 80's that revealed these problems.

Similarly, in democratic elections, a consensus switch can occur from one candidate to another not as the effect of new proposals or a *faux pas* by one of the candidates, but also because of a perception by the general public that one of the candidates is gaining "momentum" (Riambau-Armet 2008).

On a different note, the narrative evidence on gang wars in criminal organizations is that secessionist groups are formed in a relatively short amount of time and the reaction of the incumbent leadership appears to be directed indiscriminately against most of the members of the organization. Saviano (2006) reports a wire tapped phone call between two members of the Di Lauro clan when in 2004 the clan started a war against a secessionist group known as "the Spaniards". Although the declaration of independence of this small group has just been received, the strategy appears to be to kill indiscriminately the members of the organization who are not part of the incumbent leadership, "even if there is doubt... all of them" (p. 93).

On a different kind of social interaction, trends and fashion establish status symbols that everybody must have in order to be considered a member of some specific part of the society. These signalling objects, often regarded as a typical Veblen (1899) good, can change in a relatively short amount of time, and what is fashionable or trendy now can be replaced by the new trend in a few months or less.

What is common in all these phenomena is that the possibility of an exogenous switch in the future is often known by all the agents, but the switch itself happens as a contemporaneous switch of all single individuals. This not only arises a general problem of coordination in the sense of whether or not to switch, but also in the sense of *when* to switch. Switching too early generates for the agent the loss of the rent associated with supporting the incumbent regime (whether this is a political regime, a fashion or the local boss). Switching too late implies being on the attacked side at the moment of the switch.

The support towards autocratic regimes is very often regarded as the fruit of either the politics of repression towards opponents or pork-barrel politics and redistribution of resources towards loyal subjects¹. This paper analyzes the possible effect of the promise of future pork-barrel politics in the process of creation of consensus before the autocratic regime seizes power. The model presented in the remaining of this paper predicts the formation of consensus towards the new alternative regime abruptly at the moment of the regime switch. The change in the support for one or the other regime happens in a discrete way causing the overthrow of the incumbent regime without any explicit coordination among the agents. The model presented in this paper differs from the related one by Chamley (1999) in the motivations for the agents to support a particular regime, namely repression and redistribution of resources.

The fundamental idea of this paper is that the alternative regime implicitly

¹For a complete review of the literature see int. Al. Wintrobe (1998)

or explicitly promises a reward for its supporters, a reward that will be paid at the time of the switch to any citizen that in that moment is supporting the new regime. Notice that it is not necessary for the new regime to be able to commit to any promise. The promised reward might simply rely on the opportunity for the supporters of being on the side of the winners. On the other side, the incumbent regime has two instruments of defence: its own resources (institutional or physical) and the return associated with being loyal to the current regime. The assumption of the model presented in section 2 is that these resources are partially dependent on the support of the citizens and partially exogenously determined by the events of history not controlled by the citizens (foreign relations, natural disasters etc.) In particular, the necessary condition for the regime switch to happen is the existence of an exogenous process of deterioration of the defence resources of the incumbent regime. The regime is therefore known to fall exogenously when the resources will reach the critical level, but (1) in equilibrium the regime switch happens endogenously before the resources reach the critical level and (2) even when the time necessary for the the exogenous switch to happen tends to infinity, the switch happens endogenously in a finite time.

The parallel with the war between different leaderships in a criminal organization is straightforward: a leadership is — almost always — destined to leave space to a new one, but the succession happens abruptly with most of the members switching their support in favour of the incumbent boss in a short amount of time, giving reason to the strategy of the Di Lauro clan to kill the members of the organization even when the single individual has not still declared his adherence to the secessionist group.

The question of what makes a regime fall with the sole intervention of internal forces is of current interest in the analysis of the political situation in — among other countries — Iraq and Myanmar. Section 4 discusses the results and presents some normative suggestions for a third party, say a foreign country or the UN, interested in the fall of the incumbent regime.

2 The model

The model presented in this section is a readaptation of the model by Rochon (2006)².

A political regime A is in power and faces the opposition of an alternative regime B . At time θ an event occurs which causes the current regime to deteriorate its capacity R to effectively defend its position. The value of θ is determined by an exponential distribution with parameter λ per unit of time. λ is the probability of the occurrence of the event per unit of time conditional on no previous occurrence.

²Rochon's (2006) article describes a delay strategy equilibrium on speculative attacks. The sequential arrival of information is modeled after Abreu and Brunnermeier's (2003) model on speculative bubbles.

A mass 1 of citizens can either support the current regime A or the alternative regime B . At time θ , when the adverse event for the current regime takes place, the totality of the citizens support the current regime. The deterioration of the level of defense resources of the current regime is not observable by the agents. However, the agents know the structure of this deployment. I assume that the defense resources R of the current regime follow a linear process starting at time θ and reach a critical level (for simplicity 0) at time T starting from a level \bar{R} . At time $\theta + s$ the level of defence resources $R(s)$ is given by

$$R(s) = \bar{R} \left(1 - \frac{s}{T}\right). \quad (1)$$

When defence resources reach the critical value 0 the alternative regime B seizes power exogenously and each agent supporting the regime B receives an award β .

Once the adverse event has occurred at time θ , agents become gradually informed about its existence. The flow of newly informed citizens is uniform with the mass of informed agents at time $\theta + s$ equal to σs , for some parameter $\sigma > 0$. A citizen informed at time $t > \theta$ knows only that $\theta < t$. The support of a mass of agents ρ for the regime B enters equation 1 as

$$R(s) = \bar{R} \left(1 - \frac{s}{T}\right) - \rho. \quad (2)$$

To conclude, a regime switch can happen either exogenously at time $\theta + T$ or endogenously before time $\theta + T$ if enough citizens decide to support the alternative regime B . In particular, the regime switch happens at time $\theta + s$ if

$$\rho(s) = \bar{R} \left(1 - \frac{s}{T}\right) \quad (3)$$

where $\rho(s)$ is the mass of citizens supporting the alternative regime at time $\theta + s$.

With t denoting the time when an agent becomes informed about the shock, a delay strategy y corresponds to supporting the current regime A before time $t+y$, and if no regime switch has occurred at time $t + y$, supporting the alternative regime B thereafter.

The return of supporting the regime currently in power is fixed at r per unit of time. If at the time of the regime switch an agent is supporting the new regime, the agent receives an award β .

3 Equilibrium

A symmetric delay strategy equilibrium of the model in section 2 is a delay strategy y such that the optimal response function to a delay strategy x followed by all agents is $y(x) = x$. The symmetric equilibrium will be shown in the appendix to be the unique strongly rational expectations equilibrium of the model.

Given that an adverse event for the current regime occurred at time θ , let τ denote the time elapsed between θ and the regime switch. Assume first that all agents follow the delay strategy x . $\sigma(\tau - x)$ is therefore the amount of individuals deciding to support the alternative regime between time $\theta + x$ and $\theta + \tau$ and $\bar{R}\tau/T$ is the exogenous loss of defense resources of the current regime. The equation

$$\sigma(\tau - x) + \bar{R}\frac{\tau}{T} = \bar{R} \quad (4)$$

defines the time τ elapsed between the adverse event and the regime switch as a function of the delay strategy x of the agents.

Consider now the choice of a strategy y of an individual receiving a signal about θ at time t while all other agents follow the delay strategy x . If no regime switch has occurred after our agent delayed for y , while other agents delay for x , the defense resources of the current regime are still above the critical level at time $t + y$. What information this agent can infer about θ ? The earliest possible θ is such that the regime switch is happening immediately after $t + y$. Given the strategy x followed by all other agents, θ must therefore lie between $t - l$ and t , where l is some function $\phi(y; x)$ of y and x with

$$\sigma(l + y - x) + \bar{R}\frac{l + y}{T} = \bar{R} \quad (5)$$

where $\sigma(l + y - x)$ is the mass of citizens deciding to support the alternative regime B between $\theta + x$ and $\theta + l + y$ and $\bar{R}(l + y)/T$ is the exogenous loss of defense resources between θ and $\theta + l + y$. Equation 5 can be rewritten to find the function

$$l = \phi(y; x) = \frac{x + \frac{\bar{R}}{\sigma} - y \left(1 + \frac{\bar{R}}{\sigma T}\right)}{1 + \frac{\bar{R}}{\sigma T}}. \quad (6)$$

For an agent informed at time t which delays for y and does not see a regime switch up to that moment, θ is distributed according to the exponential distribution with parameter λ truncated on the support $[t - \phi(y; x), t]$ with density

$$f(\theta; x, y) = \frac{\lambda e^{-\lambda(\theta - t)}}{e^{\lambda\phi(y; x)} - 1}. \quad (7)$$

From the perspective of the agent waiting for time y while all the other agents are waiting for time x , the instantaneous probability of a regime switch $\pi(y; x)$ is equal to the probability that the adverse event for the current regime has happened at time $t - \phi(y; x)$

$$\pi(y; x) = \frac{\lambda}{1 - e^{-\lambda\phi(y; x)}}. \quad (8)$$

Since $\phi_y(y; x) < 0$, $\pi_y(y; x) > 0$. Furthermore, the largest delay y_0 between the time he gets the information and the time the regime switch occurs is given by

$$\bar{R} = \frac{\bar{R}y_0}{T} + \sigma(y_0 - x) \quad (9)$$

$$\Rightarrow y_0 = \frac{x + \frac{\bar{R}}{\sigma}}{1 + \frac{\bar{R}}{\sigma T}} \quad (10)$$

with

$$\lim_{y \rightarrow y_0} \pi(y; x) = \infty. \quad (11)$$

Assuming that $\beta\pi(0; x) < r$, an agent receiving the signal at time t will therefore delay up to the point at which the return r for supporting the current regime is equal to the expected return of supporting the alternative regime

$$\beta\pi(y; x) = r \quad (12)$$

or

$$y(x) = \frac{x + \frac{\bar{R}}{\sigma}}{1 + \frac{\bar{R}}{\sigma T}} - \frac{1}{\lambda} \log\left(\frac{r}{r - \beta\lambda}\right). \quad (13)$$

The slope of the reaction function $y(x)$ is smaller than one. For this result it is crucial the assumption that there exists an exogenous process of deterioration of the defense resources of the current regime. If indeed the regime was simply destined to be overthrown at time T without a process of deployment of its resources, the reaction function would have been

$$y^A(x) = \frac{\bar{R}}{\sigma} + x - \frac{1}{\lambda} \log\left(\frac{r}{r - \beta\lambda}\right) \quad (14)$$

with slope equal to 1. The existence of such a process is therefore critical for the existence of a defined equilibrium.

I assume now that $r > \beta\pi(0; 0)$. This assumption guarantees that $y(0) > 0$: the return for supporting the current regime is sufficiently high to induce our agent to delay even if other agents do not delay.

Under these two assumptions on the model, the Kakutani's fixed point theorem guarantees the existence of a unique symmetric equilibrium with

$$y^* = T - \left(1 + \frac{\sigma T}{\bar{R}}\right) \frac{1}{\lambda} \log\left(\frac{r}{r - \beta\lambda}\right). \quad (15)$$

The equilibrium strategy is therefore increasing in the amount of defence resources of the current regime and its ability to reward its own supporters (or equivalently, to punish its opponents). It is decreasing on the promised award given by the incumbent alternative regime. Furthermore, in equilibrium, the time τ elapsing between the adverse event and the regime switch is given by

$$\tau = T \frac{\bar{R} + \sigma y^*}{\bar{R} + \sigma T} \quad (16)$$

with $\tau < T$ and τ/T tending to a constant as T tends to infinity.

4 Conclusions

Regime switches are often supported by a large part of the population, but the consensus towards them is usually revealed only at the time of the switch. This paper explores this topic allowing the newly settled regime to reward its supporters at the time of the regime switch. The conclusion of the model is that the consensus towards the regime switch is generated in a discrete way at the time of the regime switch without any explicit coordination among the agents.

A key assumption required for the regime switch is the existence of a process of deterioration of the defence resources of the incumbent regime. This suggests some normative thoughts about the better strategy for a third subject, say a foreign country or the United Nations, interested in the regime switch to happen. The threat of an attack does not provide a signal of a deterioration of the defence resources of the regime. On the opposite, the political agenda of the third party should be to slowly start to reduce the defence resources of the regime and to signal this to the internal opponents. Notice that for the deterioration of the resources to lead to the regime switch endogenously, the exogenous process should be capable of eventually determine the fall of the regime. An embargo surely reduces the capacity of a government to face internal pressures for a regime switch, but it is not per se capable to cause the fall of the regime. The correct signal the agents should receive is therefore that the incumbent regime is actually losing its ability to respond to an internal attack and that the policy of the foreign power is destined to eventually succeed without the help of internal agents. This was probably the case in Eastern Europe in the '80s, when the action of the western powers was since long time committed to the final fall of the communist regime, but might have been not the case in Myanmar.

Another not surprising result is that the speed with which information reaches the agents reduces the time elapsing between the adverse event and the regime switch³. A slow and uninformative press, indeed, adds effectiveness to the internal defence resources of a regime. This suggests an explanation for limiting informational channels to the vertical dimension only in criminal organizations.

APPENDIX

The symmetric equilibrium in section 3 is the unique rational expectation equilibrium of the model presented in this paper, i.e. any strategy y either larger or smaller than y^* is iteratively dominated. In this appendix I prove that any strategy $y > y^*$ is iteratively dominated. A similar argument applies for all strategies $y < y^*$.

³Substituting equation 15 in 16 and deriving with respect to σ leads to

$$\frac{\partial \tau}{\partial \sigma} = -\frac{(T\sigma)^2 + 1}{\bar{R}} < 0. \quad (17)$$

An agent informed at time t knows that the regime switch will occur for certain no later than time $t + T$. Any strategy for which $y > T$ is therefore dominated by all strategies $y < T$.

Assume that agents delay no longer than x_k , with $x_1 = T$. The time elapsing between θ and the regime switch is therefore no longer than the one for the symmetric case in which all agents wait x_k . Therefore, for an agent informed at time t who has delayed until $t + y$ without observing a regime switch, the lower bound on the distribution of θ is $t - \phi(y; x_k)$, which in turn implies that the subjective instantaneous probability of a regime switch is $\tilde{\pi}(y) \geq \pi(y; x_k)$ for any belief about the strategy of all other agents constrained on $x \leq x_k$.

Let x_{k+1} be defined by $\beta\pi(x_{k+1}; x_k) = r$. We know that $\pi(y; x_k)$ is strictly increasing in y . Therefore for any $y > x_{k+1}$, and for any strategy of the other agents that do not delay longer than x_k , $\tilde{\pi}(y) \geq \pi(y; x_k) > \tilde{\pi}(y) \geq \pi(x_{k+1}; x_k) = r/\beta$. Deciding to support the alternative regime at time $y > x_{k+1}$ is a strategy dominated by any strategy $y < x_{k+1}$.

The sequence $\{x_k\}$ is generated by the reaction function in equation 13: $x_{k+1} = y(x_k)$. This sequence is monotonically converging to y^* defined in equation 15. Therefore any strategy with a delay $y > y^*$ is iteratively dominated.

References

- Abreu, Dilip and Markus K. Brunnermeier**, “Bubbles and crashes,” *Econometrica*, 2003, 71, 173–204.
- Chamley, Christophe**, “Coordinating Regime Switches,” *The Quarterly Journal of Economics*, Aug. 1999, 114, 869–905.
- Kuran, Timur**, “Preference Falsification, Policy Continuity and Collective Conservatism,” *Economic Journal*, 1987, 97, 642–665.
- , “The Inevitability of Future Revolutionary Surprises,” *American Journal of Sociology*, May 1995, 100 (6), 1528–51.
- Riambau-Armet, Guillem**, “Momentum and Voting Behavior,” *Mimeo*, 2008.
- Rochon, Céline**, “Devaluation without common knowledge,” *Journal of International Economics*, 2006, 70, 470–489.
- Saviano, Roberto**, *Gomorra. Viaggio nell'impero economico e nel sogno di dominio della camorra*, Arnoldo Mondadori Editori, Milano, 2006.
- Veblen, Thorstein B.**, *The Theory of the Leisure Class. An Economic Study of Institutions*, Macmillan Publishers, London, 1899.

Wintrobe, Ronald, *Political Economy of Dictatorship*, Cambridge University Press, Cambridge, New York., 1998.