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By Invitation (for something a bit different!):

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What can game theory tell us about the cabinet formation? The answer is that the process of cabinet formation can be described by the resolution of two separate games in political economy. The first game is played by foreigners, outsiders, and some if not all economists, and seeks to confront the abyss that we are in, and to walk the economy back to a healthy recovery, and hence to substantially ameliorate the plight of the people of Lebanon. This game explains why it is in the interest of the nation to have a government of experts, not affiliated to any political party, but that has the backing of all parties. This so-called 'efficiency' option is found to be a non-cooperative Nash equilibrium whereby no party will benefit from not adhering to it. It is also a Pareto-optimal equilibrium as total welfare is maximized and no party can make changes and benefit at the expense of the other party. A cabinet of experts should be the rational outcome of the bargaining between parties. Some may consider that such an outcome denotes irrationality on the part of the extant political parties, because a government has not been materialized yet, and is not expected to be materialized in the near future. It seems that the actual equilibrium, or status quo, is driven by the tacit agreement by all parties to postpone any positive cooperative action. Unfortunately, the status quo is also a stable state of nature.

This note will show that the decision of keeping the stalemate by politicians is not only a reasonable but is also a perfectly predictable policy. This is true because politicians are playing another game, which is the second game in this note, in which the popularity of the ruling party is at stake.

The model is simple. There are two opposing political parties or players, party A and party B. They are to decide on whether the cabinet is to be formed or not. There are three possible outcomes: no government, a lame duck government, and an appropriately competent, non-corrupt, and efficient government of specialists. A lame duck government is one that is selected by politicians and will be composed of non-specialist politicians. A lame duck government occurs when one party rules at the expense and to the detriment of the other party. Such a government will have the backing of only one party, and will carry out an agenda favorable to the party that gives it its backing.

The size of the economy is the sum of the two party pay-offs under each alternative. In case of 'no government' the 'economic cake' is the abyss, the sum of two zeroes, a zero for each party. In case of an efficient government, that has the support of both parties, the cake is 2, i.e. 1 for each party with its incumbents. This is the highest pay-off. In case of a lame duck cabinet the payoff of the 'winner' and its incumbents is 2, and the payoff of the 'loser' and its incumbents is -1, for a total of 1 ($=2-1$). This means that the economy is bankrupt under the current conditions, is lavish with a cabinet of specialists, and is way below potential in the remaining two situations. The matrix of outcomes can be schematized as follows:

		Player A	
		Decision is not to form a government	Decision is to form a government
Player B	Decision is not to form a government	<i>No government</i>	<i>Lame duck government</i>
	Decision is to form a government	<i>Lame duck government</i>	<i>Efficient government</i>

The matrix of pay-offs features the following:

Player A		Player B
<i>No government</i> (0,0) Total: 0	<i>Lame duck government</i> (-1,2) Total: 1	
<i>Lame duck government</i> (2,-1) Total: 1	<i>Efficient government</i> (1,1) Total 2	

In case both parties decide not to form a government, they earn nothing, and this is the status quo. In case one party succeeds in forming a government, and the other party remains in the opposition, the 'winner' takes 2 and the 'loser' has a haircut of 1. It is assumed that the winner will enact policies that favor its own party and its adherents, and that are damaging to the other party and its adherents. The total gain for the economy is 1. In case both parties agree to cooperate and to form an efficient government, which is beneficial to all, both parties earn 1, and the well-being of the economy is thus maximized at a total level of 2, which is Pareto-optimal.

What action should player B decide to take if player A decides not to cooperate, i.e. not to form a government? Player B can either decide also not to cooperate, and hence no government is formed, or a lame duck government is formed, and player B is the winner and the ruler. Player B gets a zero payoff in the first instance, and a positive payoff in the second. Hence player B will decide to opt to form a lame duck government. Therefore, if player A refuses the deal the optimal action for player B is to decide in favor of forming a partisan government.

What option should player B decide to take if player A decides to cooperate, or to form a government? Player B can either decide to refuse the offer and earns a -1, and a lame duck government is formed, ruled by party A, or to choose an efficient government and earn a +1. Obviously player B will decide to collaborate and to form a government, and earn the higher pay-off of +1. Therefore, if player A acquiesces, the optimal action for player B is to acquiesce too, and they both decide to form a government. It turns out that this is the most efficient outcome.

The same analysis can be performed for player A by symmetry. As a conclusion the optimal policy is for the two parties to cooperate in forming an efficient government, and achieve the maximum welfare for the nation. In academic parlance this is a dominant strategy.

The above illustration is robust to changes in the pay-offs. For example, and as long as the payoff of a lame duck cabinet to the winner is strictly higher than zero, then the optimum will not vary. Moreover, the analysis can accommodate the event when the payoffs are not symmetric, one party being more efficient in governing than the other.

The demonstration so far has reached the conclusion that the wise decision for the parties in Lebanon is to form the efficient government that is expected from them. International and Arab actors are perfectly right and commendable in demanding insistently an efficient government, in the interest of the people of Lebanon, especially since these actors are independent and unmotivated observers. Nonetheless the actual outlook on the ground is for a negative stalemate, i.e. the common refusal to form a government. How can such a surprising outcome be produced, and is it stable?

To understand what is in the mind of the politicians it is necessary to model their behavior with another game that they play, which is similar to the above. The fundamental proposition is that the required economic policies for a recovery are undeniably and highly unpopular, and may impact adversely the results of the parliamentary elections scheduled next year. Hence the construction of the cabinet will determine who is to carry the blame and subsequently lose at the ballots. If the decision is not to form any government, the electoral repercussions are small, and the costs are low. If the decision is to form an efficient government both parties will be blamed for the hardship and these parties might lose their political clout, and hence the costs are elevated. In case of a lame duck government the unpopularity costs fall on the 'winner' party. The reader might have noticed that the pay-offs of this second game are a mirror image of the pay-offs of the first game. In the second game, a positive figure means a cost, and a negative figure a gain. The optimal Nash equilibrium is for the political parties to

refuse to form a government, which explains the current reluctance of the parties to come to an agreement to alter the status quo. And since it is a Nash equilibrium, it is undoubtedly stable. While this reasoning is unpleasant and astonishing to outsiders who cannot understand why Lebanese politicians fail in their mandate, the behavior of all actors are nevertheless consistent with theory. It seems that the way out of this intricate dilemma awaits the parliamentary elections. In brief, no politician is willing to puncture the abscess, and be made accountable for the negative economic and social consequences, although it is clear to all participants that only an efficient cabinet can guide us out of the deep hole inside which we reside. Do you believe in miracles?

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