The Golden Hello and Political Transitions[*]

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Abstract

We analyze the influence of IMF and World Bank programs on political regime transitions. We develop an extended version of Acemoglu and Robinson's [American Economic Review 91, 2001] model of political transitions to show how the anticipation of new loans from international financial institutions can trigger political transitions which would not otherwise have taken place. We test this unexplored implication of the theory empirically. We find in a world sample from 1970 to 2002 that the anticipation of receiving new programs immediately after a political regime transition increases the probability of a transition from autocracy to democracy and reduces the probability of democratic survival.

JEL classification: O19, D72, F59, F53.

Keywords: Political transitions; democracy; autocracy; financial institutions.

1 Introduction

The establishment of a new political regime is often followed by new loan agreements with international financial institutions such as the World Bank and the International Monetary Fund (the IMF). This is true for newly established democracies as well as for newly established autocracies or dictatorships. IMF agreements with newly established democracies include Spain in 1978 and Turkey in 1979, while agreements with newly established dictatorships include Chile in 1974 and Argentina in 1976. Along similar lines, Alesina and Dollar (2000) document that countries that democratize commonly experience a surge in foreign development aid immediately after the transition. In fact, this is true for 44 of the 59 episodes of democratization they study.[1] We refer to these capital inflows to a newly established political regime as a "golden hello" and investigate the effect of such "welcome gifts" on political regime stability.

[1]Kalyvitis and Vlachaki (2012) find that aid reduces the prevalence of democracy but stress that the effect depends on underlying economic factors.

This investigation allows us to conduct a novel empirical test of Acemoglu and Robinson's (2001) theory of political transitions. In a series of papers and a subsequent book[2], Acemoglu and Robinson have developed a powerful framework in which to analyze the economic origins of dictatorship and democracy. This work has became a major reference point in the field of political economics. Criticisms have mainly focussed on the difficulty of testing the theory systematically. Among other things, one of its central features is that the political regime type emerging in equilibrium depends of how costly it is for the powerful elites to mount a coup and for ordinary citizens to organize a revolution. Obviously, these variables are difficult to quantify and this makes formal testing of the theory hard.[3]

Our test of the theory explores that (exogenous) variation across time and space in the anticipation of receiving a golden hello after a successful transition affects the likelihood of political transitions. To make the logic behind the proposed test clear, we extend Acemoglu and Robinson's (2001) theory of political transitions to take into account that after a transition to either democracy (after a process of democratization) or to autocracy (after a coup), a newly established political regime *may* receive a temporary transfer (a loan) from an international donor (a golden hello). We show that the anticipation of a golden hello *causes* regime instability. The reason is that the golden hello, on the one hand, increases the value of a transition to democracy. This makes a governing elite, faced with a real and serious threat of revolution, more willing to extend voting rights and introduce some form of democracy. On the other hand, once democracy is established, the anticipation of a golden hello enhances the incentive of the elite, now in opposition, to mount a coup to get back to autocracy. Laying this bare logic is important because one of the stated intentions behind IMF and World Bank agreements with newly established political regimes is to foster political stability, not to cause instability. Of course, the golden hello could play a more benign role if it was used selectively through appropriate conditionality on regime type (rather than on policy) to induce democratization. But before we can draw such policy conclusions, the consequences and the importance of the golden hello must be established empirically.

To this end, we use a world sample covering the period from 1970 to 2002 to quantify the effect of the golden hello on the probability of political regime transitions forth and back between democracy and autocracy. We define a golden hello as either a new Structural Adjustment and

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[2]See, e.g., Acemoglu and Robinson (2000, 2001, 2006).

[3]Aidt and Jensen (2011) and Przeworski (2009) are two recent attempts at overcoming this difficulty. They do so by constructing direct measures of the threat of revolution that can be used to test whether this threat was a major course of transitions from autocracy to democracy and both studies find that it was. Burke and Leigh (2010) and Brückner and Ciccone (2011) establishes a link between (negative) rainfall shock and democratic change which is consistent with the Acemoglu and Robinson's (2001) theory. Aidt and Leon (2012) using a similar design establish that the mechanism linking negative rain shocks to democratic change is a surge in riots following droughts.

Growth Facility or Poverty Reduction and Growth Facility agreements with the IMF or a new structural adjustment loan from the World Bank within two years after a regime transition. These programs are important examples of golden hellos because they involve significant new resources made available to a new political regime. Theoretically, however, what matters for the incentive to overthrow or reform an existing political regime is the *expectation* that a golden hello will be triggered by the regime transition, not the golden hello itself. We use three different methods to quantify these expectations. The first method builds on the assumption of rational expectations and captures the effect of a fully anticipated golden hello. In practice, we proxy the rational expectation of a golden hello simply by recording whether a golden hello was received by the country after a transition or not. The second method builds on the assumption of adaptive expectations. Here, we build indicators based on a country's own past record of golden hellos as well as indicators based on the past experience of a country's neighbors. Arguably, neighbor effects are exogenous to the political process of a particular country and, therefore, they reduce the risk of endogeneity bias. To gain further confidence about our results, we also implement an IV approach for which we instrument a perfectly anticipated golden hello using the past voting behavior in the UN General Assembly in accordance with the USA. Importantly, the instrumented golden hellos are significantly associated with both transitions to democracy and autocracy.

Our analysis is related to multiple strands of the literature and several open questions. In addition to the work by Acemoglu and Robinson discussed above, this paper contributes to the broader literature on the origins of political institutions (e.g., Boix, 2003; Lizzeri and Persico, 2004; Gradstein, 2007; Congleton, 2007; 2011, Ellis and Fender, 2011).[4] This literature mainly focuses on domestic factors such as inequality, growth volatility, and economic development and see internal rivalry or constitutional change (and not the threat of revolutions and coups) as the main drivers of political transitions. Some authors have put some emphasis on international factors and the role of the international community. Acemoglu and Robinson (2006, chapter 10) and Meissner and Lopez Cordova (2008), for example, argue that international trade and globalization can be a cause of regime transitions, in particular towards democracy. Boix (2003, chapter 1) argues that international capital mobility reduces the scope for redistribution under democracy which in turn facilitates democratization. Aidt and Albornoz (2011) argue that foreign countries may have an economic interest in sponsoring coups, stabilizing dictatorships and facilitating constrained

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[4]The paper is also related to a literature on foreign influence on domestic policy choices (Antras and Padro i Miquel, 2011; Aidt and Hwang, 2008). While this literature takes the political regime as given, we are interested in foreign influences on the regime choice itself.

democratization abroad in order to protect their foreign direct investment.[5] This paper contributes to this research agenda by showing that international financial institutions by "rewarding" newly established political regimes with a golden hello also plays a role in the regime dynamics observed around the world.

The empirical literature on the origins of democracy and autocracy is large and varied. In an extreme bounds analysis, Gassebner et al. (2009) find that, of among 59 factors considered in the literature to explain political regime transitions, past transition is the most robust determinant of the establishment and consolidation of democracy. Notably, GDP per capita only influences the survival probability of democracy but not its emergence. To our knowledge, no previous study has investigated theoretically or empirically the effects of transfers to newly established political regimes from international financial institutions. We complement the previous research effort by showing that the "golden hello effect" is real and important.

Our analysis is also related to a vast literature on the influence of international financial institutions on a range of economic and political outcomes. Of particular relevance is the literature on the influence of the IMF and the World Bank on political outcomes.[6] Barro and Lee (2005) argue that IMF loans have a negative effect on the development of democratic institutions in the recipient countries. This "anti-democratic" effect is consistent with the golden hello. Here, we provide a theoretical reason why IMF loans can have this (unintended) effect and a refined test that focuses on the effect of *new* IMF loans on regime instability within a well-defined time window. As such, our work is directly related to the fact that IMF programs affect the "survival rates" of political leaders (Smith and Vreeland, 2003).[7] We show that IMF programs increases the probability of a transition from autocracy to democracy and reduces the survival probability of democracies.

Vreeland (1999) documents one possible channel through which the political effect of international financial institutions may operate: the "scape goat effect" whereby unpopular policies can be blamed on the conditionality imposed by the international financial institutions (e.g., the

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[5]Bonfatti (2011) emphasizes the strength of economic ties between domestic and foreign groups in a related theory of foreign intervention. Berger, Corvalan, Easterly, Satyanath (2010) provide evidence of US and Soviet interventions abroad. They estimate the impact of this as a decline in democracy across the world of about 33 percent. Berger, Easterly, Nunn, and Satyanath (2011) show that CIA operations abroad help US exporters. Dube et al. (2011) show how (secret) CIA operations are reflected in the share value of US companies operating in countries in the relevant countries.

[6]The influence of the IMF and the World Bank on economic outcomes has also attracted attention but is less relevant for the point we want to stress here. Vreeland (2003), for example, finds that IMF agreements reduce economic growth and increase inequality. Barro and Lee (2005) also find a negative effect on economic growth, but add that IMF loans increase trade openness. See also Stone (2002).

[7]Related to this, Killick (1995) as well as Dreher (2004) document that the re-election probability of democratically elected leaders is affected by the presence or absence of an IMF program.

IMF). Another channel, documented by Dreher and Vaubel (2004), is that the monies obtained from international financial institutions are sometimes abused by governments to secure and maintain power. We add a third channel: the "golden hello effect" whereby expectations about new loan agreements with an international financial institution immediately after a regime transition can induce regime instability. Related to this, Dreher and Gassebner (2011) show that *remaining* under an IMF or World Bank program following an economic crisis increases the likelihood of a political crisis. We complement this finding by showing that the anticipation of *new* programs – with or without an underlying economic crisis – is in itself a source of political instability.

The rest of the paper is organized as follows. In section 2, we present the model and derive the new testable implications of Acemoglu and Robinson's (2001) theory of political transitions. In section 3, we lay out our estimation strategy and discuss the data material. In section 4, we present the results. In section 5, we conclude and discuss some policy implications.

2   The Model

In this section, we outline and extend the theory of political transitions proposed by Acemoglu and Robinson (2001). We have simplified the theory in several dimensions. These simplifications facilitate the exposition but are not critical for the point we want to make.

2.1   Assumptions

We consider a society with infinite time horizon, $t = 0, 1, ...\infty$. Incomes are discounted by the factor β. The society is populated by two groups of individuals, which we call the rich and poor for concreteness. The total size of the population is normalized to 1 and the fraction of poor is $\lambda > \frac{1}{2}$; i.e., the poor are the majority. The *political state* is $S_t^{Pol} \in \{\mathcal{D}, \mathcal{A}, \mathcal{S}\}$; that is, the political regime (S_t^{Pol}) of the society can be either democracy ($\mathcal{D}$), autocracy ($\mathcal{A}$) or socialism ($\mathcal{S}$).[8] Regime transitions happen through coups, revolutions, or democratization. The opportunities for coups and revolutions depend on many different political, technological and economic factors. To capture this, we assume that the costs of coups and revolutions are stochastic and depend on the *social*

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[8] We use these names to describe the regimes for concreteness, but it should be stressed that the model is not restricted to the types of regimes suggested by those names. The key features represented by the three regimes are as follows: (i) the minority (the rich in the model) prefer autocracy to democracy, but a transition to socialism is even worse and (ii) the majority (the poor in the model) prefer socialism to democracy if a transition to socialism could be effected costlessly (which it cannot, as we shall see). Accordingly, many other interpretations of the three regimes are possible. For example regime $\mathcal{A}$ could be restricted democracy with a wealth-qualification on the right to vote; regime $\mathcal{D}$ could be liberal democracy with universal suffrage and regime $\mathcal{S}$ could be an anti-rich populist democracy.

state ($S_t^s \in \{G, B\}$). When the social state is G, conditions for either a coup or a revolution are favorable and the costs are relatively low (see below). When the social state is B, a coup or a revolution is prohibitively costly. The probability that the social state is G (B) is denoted by ψ $(1 - \psi)$.[9]

We specify the per-period incomes of the members of the two groups directly as functions of the political states. We denote per capita income by $y_i\left(S_t^{Pol}\right)$ for $i \in \{R, P\}$.[10] Utility is linear in incomes. Under autocracy, the rich control the government and no redistribution takes place. The income of each rich person is $y_R(\mathcal{A})$, while that of a poor person is $y_P\left(\mathcal{A}\right) < y_R(\mathcal{A})$. Under democracy, the poor hold the majority and may use the state to redistribute income from the rich. As a consequence, $y_R(\mathcal{A}) > y_R(\mathcal{D}) > 0$ and $y_P(\mathcal{A}) < y_P(\mathcal{D})$. Finally, under socialism wholesale expropriation of the rich takes place and we assume that $y_R(\mathcal{S}) = 0$ and $y_P(\mathcal{S}) > y_P(\mathcal{D})$.[11]

The poor might initiate a revolution to change the political state from autocracy to socialism.[12] We assume that socialism is an absorbing state.[13] During a revolution, however, each poor person loses welfare, $\mu_{S_t^s}$. How much depends on the social state. If $S_t^s = B$, then $\mu_B = \infty$ and the poor never attempt a revolution. If, on the other hand, $S_t^s = G$, then $\mu_G = \mu < \infty$ and they might be willing to pay the price of a revolution.

Clearly, the rich have a strong incentive to avoid a revolution. The only way (in our formulation of the model) to prevent the emergence of a revolution is to give the poor the right to vote.[14] Provided a revolution is sufficiently costly, a transition to democracy takes place. A sufficient

[9]Acemoglu and Robinson (2001) link, for concreteness, the conditions for social unrest directly to the business cycle. In fact, they assume that coups and revolutions can only take place during recessions. The work by Brückner and Ciccone (2011) provides empirical justification for this assumption. Economic shocks are, however, one factor amongst many which make revolutions and coups possible (war and shifts in the international balance of power are two other factors one could mention). We prefer for that reason to make cost of coups and revolutions directly stochastic. We stress, however, that it would be a simply matter to reformulate the model to make the cost of coups and revolutions a function of the business cycle and doing so would not affect the logic regarding the golden hello which the model is designed to illuminate.

[10]These incomes can be derived from more fundamental assumptions about endowments, production technologies and tax instruments as in Acemoglu and Robinson (2001). Doing so complicates the analysis without affecting our main results.

[11]As stressed by Tullock (1971) and Kuran (1989), it is the private returns, not the public good of regime change, that matter for an individual's incentive to participate in a revolution. We follow Acemoglu and Robinson (2000, p. 1172) and assume that each poor can be excluded from the benefit of a revolution if he does not participate. The eliminates any free rider problem, but there could still be a coordination problem. Ellis and Fender (2010) show how one can integrate this aspect into the model. Doing so is not essential for our purposes.

[12]The term revolution should be understood to mean an un-orderly and forced transition from autocracy to socialism.

[13]This is a simplifying assumption that could be relaxed to engage with the break-up of socialism. However, doing so would distract from the main message we want to convey through the model without affecting it substantially. We may, however, note that the logic underlying the golden hello as a regime destabilizing factor could potentially help explain the cascade of events that unfolded in eastern Europe in the late 1980s and throughout the 1990s.

[14]In reality, the rich also got the option of investing resources in repression, e.g., in a police or defense force. Rosendorff (2001), for example, in his theory of democratization stresses this as one of the main coping strategies other than suffrage reform that an elite can employ to hold on to power. Acemoglu and Robinson (2000, 2001) emphasize transfers or other policy concession as yet another alternative and point to the commitment value of democracy. For the argument that we want to make here, it is not important that we, for simplicity, exclude these possibilities.

condition for the poor to prefer democracy to socialism is $\mu > \underline{\mu}$,[15] where

$$\underline{\mu} \equiv \frac{y_P(\mathcal{S}) - y_P(\mathcal{D})}{1 - \beta} + \frac{\beta \psi \left(y_P(\mathcal{D}) - y_P(\mathcal{A}) \right)}{\left(1 - \beta(1 - 2\psi) \right) \left(1 - \beta \right)}. \tag{1}$$

Such a transition may, however, be temporary only: the rich can namely mount a coup to reinstate autocracy. A coup is costly because of the turmoil it creates and the risks it involves. As a consequence, each rich suffers a welfare loss, $\phi_{S_t^s}$, during a coup. How big this loss is, again, depends on the social state. If $S_t^s = B$, then $\phi_B = \infty$ and the rich never attempt a coup. If, on the other hand, $S_t^s = G$, then $\phi_G = \phi < \infty$ and the rich might be willing to pay the price of a coup.

The new feature of the model is the "golden hello" – the welcome gift to a new regime. Specifically, we assume that a newly established political regime after a transition to either democracy (after a process of democratization) or autocracy (after a coup) *may* receive a one-off gift or transfer from abroad.[16] The leading example that we have in mind is new loan agreements with the IMF or the World Bank, but bilateral development aid can also serve our purpose. For simplicity, we assume that the transfer is distributed equally across the population and denote the per-capita transfer by $\widehat{\sigma}_j \geq 0$ with $j \in \{\mathcal{A}, \mathcal{D}\}$. We stress that our results hold as long as the rich benefit from the golden hello.[17] The size of the golden hello is unknown before the transition. We assume that it is drawn from a stationary distribution with mean σ_j and variance υ_j. The draw takes place immediately after each transition and is independent of past draws.[18] The timing of events within each period is as follows:

1. The social state $S_t^s \in \{G, B\}$ is revealed.

2. If a revolution has happened in the past, then the political regime is socialism and the period ends and incomes are $y_i(\mathcal{S})$ for $i \in \{R, P\}$.

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[15] We derive this condition in the Appendix.

[16] Logically, there is a third possibility, namely that a socialistic regime (after a revolution) receives a transfer. Although this might have been important during the Cold War, we do not consider this in the present paper. We believe that the analysis of transitions to and from socialism is an important topic that deserves attention, but it goes beyond the scope of the present paper to provide a proper analysis.

[17] This is uncontroversial in transitions to autocracy. In transitions to democracy, the rich could, in principle, be excluded from the benefits by the majority of poor if we interpret the value of the golden hello literally as a monetary transfer that the rulers of a country can split in any way they like. However, new agreements with the international financial organizations do not offer that sort of flexibility and they often help alleviate underlying economic problems and the rich will, at least partly, benefit from that.

[18] We assume that both the rich and the poor posse the ability to predict that a golden hello will be triggered (albeit not its size) by a regime transition. Ordinary workers may not be able to do this, but it is reasonable to presume that vanguard – the leaders of any attempt of revolution – do understand the logic of the golden hello. The same is true for the rich and what is really important for the logic of our argument is that the rich – the autocratic elites – understand what a regime transition triggers a golden hello.

3. If $S_t^{Pol} = \mathcal{A}$, the rich may democratize. If $S_t^{Pol} = \mathcal{D}$, the rich may initiate a coup that leads to autocracy. If a political transition takes place, incomes are determined by the new regime; otherwise they are determined by the old regime. Another regime transition cannot happen within that period.

4. If $S_t^{Pol} = \mathcal{A}$, the poor can initiate a revolution which leads to socialism. If no revolution takes place, incomes are realized as described by stage 2 or 3.

5. Incomes are consumed and the period ends. If a political transition to either $\mathcal{A}$ or $\mathcal{D}$ happened within the period, the size of the golden hello is realized and the transfer is distributed among the population.

We treat the members of the two groups as two players of a dynamic game. We restrict attention to pure strategy Markov perfect equilibria (MPEs) which we define in the Appendix.

2.2 Analysis and Results

We assume that the initial political state is autocracy. The effect of a golden hello on regime dynamics and stability depends on whether the poor can credibly threaten to organize a revolution or not. The decision to organize a revolution is made at stage 4 of the game. It is based on the following considerations. If a revolution is organized, the outcome is socialism for ever and each poor get $\frac{y_P(\mathcal{S})}{1-\beta} - \mu_{S_t^s}$. It is clear that they have no incentive to organize a revolution in social state B (as $\mu_B = \infty$). In social state G, on the other hand, they might organize a revolution, but it depends on how badly the poor fare under autocracy. Under (perpetual) autocracy, each poor gets $\frac{y_P(\mathcal{A})}{1-\beta}$. Therefore, the poor never organize a revolution in state $(G, \mathcal{A})$ when

$$\mu \geq \mu^* \equiv \frac{y_P(\mathcal{S}) - y_P(\mathcal{A})}{1 - \beta}. \tag{2}$$

When this so-called "revolution constraint" is binding, i.e., $\mu < \mu^*$, the rich must democratize to avoid socialism.[19] This leads to democracy. The golden hello, however, opens another path to democracy that applies even if the cost of revolution in state G is so large that the poor never attempt a revolution (i.e., if $\mu > \mu^*$). The rich might hand over power to the poor just to trigger the golden hello. This makes democratization voluntary rather than preemptive. While this is an interesting theoretical possibility, its empirical relevance is questionable. For this reason, we refer

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[19]Note that $\mu^* > \underline{\mu}$.

the interested reader to the Appendix where we study the scenario in detail.[20] To rule out that the rich will share power in the absence of a threat (i.e., in social state B or if $\mu > \mu^*$) just to trigger a golden hello, we assume that the rich prefer perpetual autocracy to perpetual democracy (where the rich never attempt a coup) and to unstable democracy (where the rich attempt a coup each time the state is $(G, \mathcal{D})$ and democratize in the very next period). In the Appendix, we show that this requires that

$$\sigma_\mathcal{D} < \min \left\{ \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{1 - \beta}, \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{1 - (1 - \psi)\beta} + \frac{\psi\beta(\phi - \sigma_A)}{1 - (1 - \psi)\beta} \right\} \tag{3}$$

Let us suppose that the revolution constraint binds ($\mu < \mu^*$), that is, the poor organize a revolution in social state G and that assumption (3) holds so that the rich will not democratize just to trigger the golden hello. With these assumptions in place, the transition to democracy happens because the rich grant voting rights to avoid socialism and this is independent of the presence of the golden hello.

We make a distinction between two types of democracy that might emerge: *consolidated democracy* emerges when the transition is permanent. In contrast, *unconsolidated democracy* emerges when the transition is only temporary because the rich mount a coup at the next opportunity (i.e., the next time the state is $(G, \mathcal{D})$), for again to issue voting rights when the situation requires it (in state $(G, \mathcal{A})$).[21] Whether the democracy consolidates or not depends on the incentives of the rich to mount coups and this *is* affected by the golden hello. This incentive is controlled by the so-called "coup constraint". To derive this constraint suppose that the political state is democracy and let $W_i(S_t^{Pol})$ be the continuation value for group i when the political state is S_t^{Pol}. Clearly, in social state B, the rich will not mount a coup because $\phi_B = \infty$. In social state G, the situation is different. If they do not mount a coup, they get $y_R(\mathcal{D}) + \beta W_R(\mathcal{D})$, and if they do, the coup triggers a golden hello to the new autocracy and they expect to get $y_R(\mathcal{A}) - \phi + \sigma_D + \beta W_R(\mathcal{A})$. The rich will never mount a coup if

$$\phi > y_R(\mathcal{A}) - y_R(\mathcal{D}) + \beta(W_R(\mathcal{A}) - W_R(\mathcal{D})) + \sigma_\mathcal{A}. \tag{4}$$

Since, by assumption, the current political state is democracy, it must be true that the rich were

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[20]We stress that the golden hello increases regime volatility whether the revolution constraint is binding or not, i.e., our empirical test applies to both cases.

[21]Notice that consolidated democracy differs from perpetual democracy because autocracy may persist for some periods (until the first time the social state is G). Unconsolidated democracy differs from unstable democracy because a coup is followed by a period of autocracy (until the next time the social state is G) rather than by an immediate transition back to democracy.

forced to democratize the last time the state was $(G, \mathcal{A})$ and that they will have to do so again next time the state is $(G, \mathcal{A})$. This implies that the value of autocracy is

$$W_R(\mathcal{A}) = \psi \left(y_R(\mathcal{D}) + \sigma_{\mathcal{D}} + \beta W_R(\mathcal{D}) \right) + (1 - \psi) \left(y_R(\mathcal{A}) + \beta W_R(\mathcal{A}) \right), \tag{5}$$

where we notice that the transition back to democracy if the social state is G in the next period triggers another golden hello with expected value $\sigma_{\mathcal{D}}$, this time granted to the new democracy. Combining this with the observation that $W_R(\mathcal{D}) = y_R(\mathcal{D}) + \beta W_R(\mathcal{D})$ under condition (4), we can write the coup constraint as

$$\sigma_{\mathcal{D}} < \frac{(\phi - \sigma_{\mathcal{A}})(1 - (1 - \psi)\beta)}{\psi\beta} - \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{\beta\psi} \equiv \sigma_{\mathcal{D}}^0(\phi, \sigma_{\mathcal{A}}). \tag{6}$$

The cut-off $\sigma_{\mathcal{D}}^0$ has a natural interpretation. The rich are only willing to mount a coup if it pays off. This is less likely to be case if the net expected cost of a coup $(\phi - \sigma_{\mathcal{A}})$ is high or when the payoff differential between democracy and autocracy, $y_R(\mathcal{A}) - y_R(\mathcal{D})$, is small. The following proposition characterizes equilibrium outcomes.

Proposition 1 *Suppose the initial political state is autocracy. Furthermore, assume that $\mu < \mu^*$ and assumption (3) holds. Then for all $\sigma_{\mathcal{D}} \neq \sigma_{\mathcal{D}}^0$ there exists a unique pure strategy MPE such that*

1. *If $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^0$, then the economy becomes a consolidated democracy. The rich democratize the first time the social state is G and never attempts a coups after that.*

2. *If $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^0$, then the economy becomes an unconsolidated democracy. The rich democratize each time the state is $(G, \mathcal{A})$ and mount a coup each time the state is $(G, \mathcal{D})$.*

Proof. The initial political state is $\mathcal{A}$. In autocracy, the poor moves after the rich. In state $(B, \mathcal{A})$, the best response of the poor no matter what the rich do is not to organize a revolution. Anticipating that, the elite does not democratize (as assumption (3) holds). In state $(G, \mathcal{A})$, the poor will organize a revolution if the rich do not democratize. Anticipating this, the best response of the rich is to democratize. In state $(B, \mathcal{D})$, the poor do to not make any choice. The rich will not mount a coup because the cost of doing so is infinite. In state $(G, \mathcal{D})$, the poor do not make any choice. The rich will mount a coup if $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^0$ and not mount one otherwise. To complete the proof, we need to show that both cases are consistent with assumption (3). Define

$\sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}}) = \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{1 - (1-\psi)\beta} + \frac{\psi\beta(\phi - \sigma_A)}{1 - (1-\psi)\beta}$. We notice that there exist a unique $\widetilde{\phi} = \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{1 - \beta} + \sigma_A$ such that

$$\frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{1 - \beta} = \sigma_{\mathcal{D}}^2(\widetilde{\phi}, \sigma_{\mathcal{A}}) = \sigma_{\mathcal{D}}^0(\widetilde{\phi}, \sigma_{\mathcal{A}}).$$

Moreover, at $\phi = 0$, $\sigma_{\mathcal{D}}^0(0, \sigma_{\mathcal{A}}) < \sigma_{\mathcal{D}}^2(0, \sigma_{\mathcal{A}})$. This implies that for $\phi \in [0, \widetilde{\phi})$ there exist values of $\sigma_{\mathcal{D}}$ such that $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}})$ and $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^0(\phi, \sigma_{\mathcal{A}})$ and that there exist values $\sigma_{\mathcal{D}}$ such that $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^0(\phi, \sigma_{\mathcal{A}}) < \sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}})$ ∎

Intuitively, the proposition shows that consolidated democracy emerges when the cost of a coup is high, while unconsolidated democracy with frequent regime transitions arises when the cost is sufficiently low. Importantly, regime dynamics is affected directly be the presence of the golden hello. In particular, we have the following prediction:

Proposition 2 *(Golden hello) An increase in the expected value of the golden hello increases regime instability by making a transition to unconsolidated democracy more likely.*

Proof. The proposition follows from the fact that unconsolidated democracy is more likely when $\sigma_{\mathcal{D}}$ is large and that $\frac{\partial \sigma_{\mathcal{D}}^0}{\partial \sigma_{\mathcal{A}}} = \frac{1 - \beta(1-\psi)}{\beta\psi} > 0$ ∎

This proposition shows that the expectation of a golden hello may cause what would otherwise have become a stable consolidated democracy to become unconsolidated and thus induce regime volatility. The intuition for this result is straightforward: regime volatility triggers frequent golden hellos. The extended version of Acemoglu and Robinson's (2001) theory of political transitions therefore has a clear-cut testable implication: expectations of a golden hello increase the probability of regime transitions.

3 Empirical Specification

We write the regime transition probability as

$$\Pr(RT_{it} = 1) = F(GH_{it-1}^e; X_{it-1}), \tag{7}$$

where RT_{it} is an indicator variable equal to 1 if and only if a regime transition takes place at time t in country i, and X_{it-1} is a vector of observable factors that affect the probability of such a transition. The key variable of interest is GH_{it-1}^e. It represents the expectation at time $t-1$ held by political decision makers within country i that the country will receive a golden hello at

time t *if* a political transition takes place. The theoretical prediction, represented by Proposition 2, is that $\frac{\partial F}{\partial GH^e_{it-1}} > 0$.

To test this prediction, we need to specify precisely what we mean by a golden hello. We are particularly interested in golden hellos originating from the two major international financial institutions: the IMF and the World Bank. We, therefore, define a golden hello as a *new* Structural Adjustment and Growth Facility or a *new* Poverty Reduction and Growth Facility from the IMF or as a *new* structural adjustment loan from the World Bank within a two-year window after a regime transition.[22].We have singled these particular programs out because they involve concessional loans and, as such, represent the most benefits for the recipient. For the IMF programs, we code a dummy variable equal to 1 if a new IMF program starts within the time window (as, in general, a country can only be under one IMF program at any given point in time). For the World Bank programs, we count all new structural adjustment loans started within the time window (as at any given point in time more than one program can start). We stress that we want to distinguish golden hellos originating from the World Bank from those originating from the IMF. The reason is that they could have different effects.[23]

Recording the golden hellos is not sufficient for our test. We need to quantify the *expectation* – denoted GH^e_{it-1} – held at any given point in time by the decision makers in each country i regarding the likelihood of receiving a golden hello if a political transition were to take place. We do so in two alternative ways. Firstly, we suppose that the political decision makers form rational expectations, such that, given the available information, on average, they get it right. Empirically, we approximate the rational expectation by the contemporaneous value and the two first leads of an indicator variable that takes the value 1 if a golden hello was, in fact, received from either the IMF or the World Bank after a transition and 0 otherwise. In other words, we ask if a country that perfectly anticipates getting a golden hello is more likely to undergo a transition than a country that (correctly) anticipates not getting one. We call these variables *New IMF program* and *New World Bank program*, respectively. Secondly, we suppose that the political decision makers form adaptive expectations. They, therefore, base their estimate of the likelihood that a regime transition will trigger a golden hello on golden hellos granted to their own country and/or to neighboring countries in the past. In practise, we define a neighborhood N and calculate

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[22]The source for IMF loan facilities is Dreher (2006), while data on World Bank loans are obtained directly from the webpage of the World Bank (https://finances.worldbank.org/).

[23]In fact, Dreher and Gassebner (2011), for example, show that World Bank programs started in the absence of an economic crisis tend to cause political instability; the same is not true for new IMF programs.

GH_{it-1}^{e} for each year as the sum of all past golden hellos in that neighborhood:

$$GH_{it-1}^{e} = \sum_{j=1}^{N} \sum_{\tau=0}^{t-1} (x_{j,t-1-\tau}), \tag{8}$$

where x_{jt} is 1 if country $j \in N$ in year $\tau \leq t-1$ got a golden hello and 0 otherwise.[24] We make use of three special cases of equation (8) in the estimations.

Own history of golden hellos Firstly, in one specification, we restrict the neighborhood to the country itself. In doing so, we effectively ask if a country that in the past got one or more golden hellos is more likely to experience a political transition than a country that did not. One problem with this specification is that it is possible that golden hellos granted to a given country in the past are correlated with unobserved factors that affect the likelihood of political transitions in that country in the present. If so, this will bias the inference. To minimize the risk of this, we exclude the most recent golden hello granted to a country in the construction.

World and regional history of golden hellos Another and more convincing way to overcome this problem is to exclude a country's own history of golden hellos and focus on the social learning that might come from observing other countries getting golden hellos. Since it is reasonable to presume that golden hellos received by other countries in the past are unrelated to unobserved political and economic factors triggering regime transitions within a particular country in the present this measure is, we argue, exogenous. The downside is that it will only be informative about the expectations held by the political decision makers within a given country if they, in fact, base their inference on what has happened in other countries in the past. To implement this, we consider two neighborhoods: the whole world and the region in which a country is located.[25] We refers to these two measures as the *world history of golden hellos* and the *regional history of golden hellos*, respectively. With these two measures, we effectively ask if a country that is located in a neighborhood in which, based on past experience, it is common that the neighbors receive golden hellos are more likely to undergo a political transition than a country located in a neighborhood in which golden hellos are less common.

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[24]We have explored the possibility that golden hellos in the more distant past might carry less weight. We did that by conducting a grid search and choose the discount factor that maximizes the log-likelihood. It turns out that this value is one, i.e. no discounting of the past. As consequence, we do not explicitly add a discount factor to equation (8).

[25]We use the World Bank's definition of world regions and consider the following five regions as separate neighborhoods: Europe, the Americas, Asia, Africa and the Middle East.

We also need to define what we mean by a regime transition. Here, our starting point is the dichotomous regime indicator developed by Przeworski et al. (2000). They define a democracy as a political system in which key government offices are filled through contested elections. "Key government office" refers to the executive and the legislature while "contested elections" refers to situations in which more than one party has a chance of winning office. Thus, elections must be associated with some *ex ante* uncertainty, and be subject to *ex post* irreversibility, or put succinctly, "democracy is a system in which incumbents lose elections and leave office when the rules so dictate" (Przeworski et al. 2000, p. 54). A regime change is therefore defined as a switch from autocracy to democracy or vice versa.

Before turning to the econometric analysis and results, it is useful to look at the raw data. This allows us to gauge the importance of the golden hello and its geographical and temporal spread. Table 1 lists the golden hellos recorded in our sample of 108 countries between 1970 and 2002. It includes 16 instances in which the IMF gave a golden hello to a newly established democracy and 4 instances in which a newly established autocracy received one. The corresponding numbers for the World Bank are 49 "democratic" and 13 "autocratic" golden hellos. These numbers, of course, have to be compared to the total number of political regime transitions. In the sample, there is a total of 72 transitions from autocracy to democracy and 29 transitions from democracy to autocracy. Thus, regime transitions are themselves infrequent events, but they are often accompanied by a golden hello.

This suggests that the golden hello could play a role, but regime transitions are obviously affected by many other factors as well. The theoretical literature points to a large number of economic and political factors that could potentially cause regime transitions and many of these have been investigated by a large empirical literature on the subject. Przeworski et al. (2000) stress that it is important to distinguish transitions from autocracy to democracy from transitions from democracy to autocracy. The two phenomena could have different determinants. In fact, this is precisely what Acemoglu and Robinson's (2001) theory of political transitions suggests. Consequently, we want to study the two types of transitions separately in order to allow the determinants to depend on the direction of the transition.

As in Przeworski et al. (2000), we model the probability of observing democracy in country i in year t as a first order Markov process. Let D_{it} be a dummy variable coded 1 if country i is a democracy at time t, and 0 otherwise. Then, the probability that the country is in state D_{it} at

Table 1: Overview of the Golden Hellos

	Golden Hallos			
Country	IMF		World Bank	
	Democratic	Autocratic	Democratic	Autocratic
Albania	1993		1993,1994	
Bangladesh			1991,1992	
Benin	1993		1991	
Bolivia			1980	1980
Bulgaria			1991	
Comoros	1991		1991	
Congo, Rep.			1994	
Cote d'Ivoire	2002			
Ghana	1995		1994,1995	1983
Guinea-Bissau	2000		2002	
Guyana	1994		1992,1994	
Haiti	1996			
Indonesia			1999,2000	
Kenya	2000			
Lebanon				1977
Malawi	1995		1994,1996	
Mali	1992		1994	
Mexico			2001,2002	
Moldova			1997	
Mongolia	1993			
Nepal	1992	2003		
Niger	2000	1996	1994, 2001 2001	1997,1998
Nigeria				1983
Pakistan	1988	2001	1972, 1973, 1974 1988, 1989	1999,2001
Peru			2001	1992
Philippines			1987,1988	
Poland			1990,1991	
Romania			1992	
Senegal			2002	
Sierra Leone			1996	
Sri Lanka	1991		1990,1991	
Thailand			1983	
Turkey			1983, 1983 1985	1981, 1982 1983
Uganda		1987	1982	1987
Uruguay			1987	
Zambia			1991, 1992 1993	
Total	16	4	49	13

Dreher (2006) and World Bank.

time t conditional on being in state D_{it-1} at time $t-1$ can be written as

$$\Pr\left(D_{it}|D_{it-1}\right) = (1 - D_{it-1}) \cdot \Pr\left(D_{it}|D_{it-1} = 0\right) + D_{it-1} \cdot \Pr\left(D_{it}|D_{it-1} = 1\right) \qquad (9)$$

Since the corresponding likelihood function is additively separable, this Markov process can be estimated as two logistic functions with transition probabilities defined as follows

$$\Pr\left(D_{it}|D_{it-1} = 0\right) = \Lambda\left(\alpha^{AD}GH_{it-1}^{e}, X_{it-1}^{AD}\beta^{AD}\right) \qquad (10)$$

$$\Pr\left(D_{it}|D_{it-1} = 1\right) = \Lambda\left(\alpha^{DD}GH_{it-1}^{e}, X_{it-1}^{DD}\beta^{DD}\right), \qquad (11)$$

where Λ is the cumulative distribution function of the logistic distribution, superscript AD denotes transitions from autocracy to democracy, and superscript DD denotes the survival of democracy, i.e., the flip side of transitions from democracy to autocracy.[26] The theoretical prediction is that $\alpha^{AD} > 0$ and $\alpha^{DD} < 0$.

In choosing the set of control variables to include in the two vectors X_{it-1}^{AD} and X_{it-1}^{DD}, we build on recent work by Gassebner et al. (2009). They undertake an extreme bounds analysis (EBA) to establish which of the 59 potential determinants of regime transitions proposed in the vast empirical literature on the subject are robust.[27] They confirm that the determinants of the two types of regime transitions are different. For transitions to democracy, they find that the growth rate of purchasing power parity adjusted GDP per capita (*growth of GDP p.c. PPP*), previous regime transitions (*previous transitions*), the share of fuel exports in merchandise exports (*share of fuel exports*), a dummy variable for OECD membership (*OECD*), and the share of Muslims in the population (*muslim*) are robust, while for democratic survival, they find that the level of GDP per capita (*GDP p.c. PPP*), previous regime transitions, a dummy variable indicating whether the head of state is a (former) military officer (*military leader*), and the level of democracy in neighboring countries (*neighboring democracies*) are robust.[28] We use these variables (lagged by one year) as the base line and add the golden hello variables to this specification. Of course, one could choose other control variables than these, but our approach, based on the extreme bounds methodology, has the advantage of being objective, data-driven, and systematic.

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[26]The choice of modelling the probability of democratic survival instead of the transition from democracy to autocracy is common in the literature.

[27]Extreme bounds analysis involves a systematic evaluation of all possible (regression) models with regime type as the dependent variable and a fixed number of potential determinants (typically 3 to 5) from the target list of the explanatory variables. Sala-i-Martin (1997)'s criterion for robustness is that 95 percent of the cumulated density associated with the estimated coefficients on the variable of interest (e.g., GDP per capita) across all the models considered should be on one side of zero.

[28]For the sources of these variables and details on their construction, see Gassebner, Lamla and Vreeland (2009).

4   Results

The results are presented in Tables 2, 3 and 4. The estimated probability of a transition from autocracy to democracy is reported in Table 2. Specification (1) shows the estimation based on the measure of a perfectly anticipated golden hello and include the contemporaneous value and two leads of *new IMF program* and *new World Bank program*. We see that the second lead of a golden hello from the IMF exhibits a statistically significant and positive influence on the transition probability from autocracy to democracy. This effect is not only relevant in statistical terms. The corresponding marginal effect indicates that (at the mean of all the other variables), a perfectly anticipated IMF golden hello two years hence increases the likelihood of a democratic transition by six percent. This is very large, given that the unconditional probability of a transition to democracy is only two percent in our sample.[29] We also observe that the first lead of a golden hello from the World Bank is statistically significant, albeit only at the 10 percent level and the magnitude of the effect is considerably smaller than for the golden hello from the IMF.

In specification (2), we include the measure of the golden hello based on each country's own history of golden hellos. We only count golden hellos that were given at previous transitions from autocracy to democracy. Due to the fact that we exclude the current spell and we only count previous golden hellos that occurred during a democratic transition, we have insufficient information to construct this variable for golden hellos originating from the IMF. We see that having received one or more golden hellos from the World Bank in the past increases the likelihood of a democratic transition by 0.8 percent. While this is not as large as the estimated effect from the perfectly anticipated golden hello from the IMF, it is still sizable when measured against the two percent unconditional probability of a democratic transition. Since we exclude the most recent golden hello from the history, the last golden hello recorded is, by construction, at least three years in the past. This reduces the risk of omitted variables bias.

In specifications (3) and (4), we proxy the anticipation of a golden hello with the history of golden hellos bestowed on other countries in the region within which a country is located. This further reduces the risk of omitted variables bias. From specification (3), we see that the world history of golden hellos does not seem to play a major role in determining democratic transitions. This may be due to the fact that this "neighborhood" simply is too large to make political decision makers within a particular country pay much attention. This suspicion is confirmed by specification (4). Here, we defined the neighborhood as the region in which a country is located (Europe, the

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[29]We get the same results if we enter each of the variables individually.

Americas, Asia, Africa, or the Middle East). We see that the regional golden hellos, both from the IMF and the World Bank, are statistically significant at the five percent level. The magnitude is larger than for the history of own golden hellos but smaller than for the perfectly anticipated golden hello.

No surprises arise with regard to the control variables. In line with Przeworski et al. (2000) and Gassebner et al. (2009), we find that GDP per capita does not facilitate democratic transitions. However, previous regime transitions do. Moreover, becoming a member of the OECD also stimulates a democratic transition.[30] Muslim countries are less likely to become democracies.[31] As Gassebner et al. (2009) show, this effect is driven by the oil rich Arab countries. This is also the likely reason that the coefficient on fuel exports is statistical insignificance: the two variables are highly collinear. The final control variable, growth rate of GDP per capita, is statistically insignificant as well.

In Table 3, we report the results with regard to the probability of democratic survival, the flip side of a transition from democracy to autocracy. From specification (1), we see that a perfectly anticipated golden hello from the World Bank (as measured by the second lead) exhibits a statistically significant and negative effect on the survival probability. Again, this is a sizable effect. A perfectly anticipated golden hello from the World Bank two years hence decreases the survival probability by 0.5 percent. We note that the unconditional probability of democratic survival is 98 percent. Perfectly anticipated golden hellos from the IMF do not exhibit a similar destabilizing effect. Unfortunately, we cannot construct the golden hello variable based on a country's own history because no country in our sample experienced two transitions from democracy to autocracy. As in the case with transitions from autocracy to democracy, the world history of golden hellos does not seem to play a major role for democratic survival. Importantly, the regional history does matter. Both for the IMF and the World Bank, the history of regional golden hellos exhibits a negative and significant effect on democratic survival at the five percent level.

With regard to the control variables, we partly conform the findings of Przeworski et al. (2000) and Gassebner et al. (2009): rich democracies are more likely to remain democracies and previous regime transitions decrease the probability of democratic survival. We do not, however, find a statistically significance effect of either political leaders who are or were military officers or the effect of being surrounded by democracies.

Before we conclude, we want to address the concern that the perfectly anticipated golden hello

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[30]This finding may seem trivial or tautological. It is not, however. Greece, Portugal, Spain, Turkey, and Mexico entered the OECD as autocratic countries and transformed into democracies only after being a member.

[31]We note that our sample period does not cover the Arabic Spring.

Table 2: Transitions to democracy, 1970 -2002

	(1)	(2)	(3)	(4)
log GDP p.c. PPP, t-1	0.00995	-0.0452	-0.182	-0.0931
	(0.230)	(0.219)	(0.229)	(0.119)
Previous transitions, t-1	0.472***	0.437***	0.508***	0.545***
	(0.135)	(0.133)	(0.131)	(0.188)
OECD	2.431**	2.536***	2.727***	2.839***
	(0.979)	(0.706)	(0.716)	(0.649)
Muslim	-1.434**	-1.829**	-1.518**	-1.382*
	(0.678)	(0.755)	(0.673)	(0.745)
Share of fuel exports, t-1	-0.00630	-0.00650	-0.00849	-0.00761
	(0.00821)	(0.00815)	(0.00808)	(0.00925)
Growth of GDP p.c. PPP, t-1	-0.0481	-0.0473	-0.0467	-0.0526**
	(0.0317)	(0.0301)	(0.0315)	(0.0238)
New IMF program	0.403			
	(1.122)			
New IMF program, t+1	-0.150			
	(1.098)			
New IMF program, t+2	1.429**			
	(0.697)			
New World Bank program	-0.505			
	(0.434)			
New World Bank program, t+1	0.527*			
	(0.276)			
New World Bank program, t+2	-0.345			
	(0.393)			
Own history of World Bank Hellos		0.388*		
		(0.214)		
World History of IMF Hellos			-0.201	
			(0.146)	
World History of World Bank Hellos			0.0802	
			(0.0523)	
Regional History of IMF Hellos				0.467**
				(0.238)
Regional History of World Bank Hellos				0.498**
				(0.205)
Observations	939	942	942	942
R-sq	0.149	0.145	0.148	0.176

Notes: The table reports logit regressions conditional on being autocratic in $t-1$. Standard errors are given in parentheses below coefficient. */**/*** indicate significance at the 10/5/1 %-level.

Table 3: Democratic survival, 1970 - 2002

	(1)	(2)	(3)
log GDP p.c. PPP, t-1	1.988***	1.806***	1.634***
	(0.526)	(0.484)	(0.261)
Military leader, t-1	-0.946	-0.766	-0.633
	(0.799)	(0.810)	(0.591)
Neighboring democracies	1.388	1.223	1.304**
	(1.258)	(1.201)	(0.568)
Previous transitions, t-1	-0.648**	-0.701**	-0.694***
	(0.310)	(0.312)	(0.169)
New IMF program	-0.148		
	(1.121)		
New IMF program, t+2	0.393		
	(1.121)		
New World Bank program	0.506		
	(0.501)		
New World Bank program, t+1	0.881		
	(0.710)		
New World Bank program, t+2	-0.959**		
	(0.395)		
World History of IMF Hellos		-0.276	
		(0.613)	
World History of World Bank Hellos		0.107	
		(0.130)	
Regional History of IMF Hellos			-0.921***
			(0.0968)
Regional History World Bank Hellos			-1.152**
			(0.448)
Observations	549	966	966
R-sq	0.281	0.311	0.335

Notes: The table reports logit regressions conditional on being democratic in $t-1$. Standard errors are given in parentheses below coefficient. */**/*** indicate significance at the 10/5/1 %-level.

may not in actual fact measure an anticipation effect and be subject to a simultaneity bias. The issue is that new programs could be assigned in the aftermath of a regime transition rather than being a pre-determined golden hello causing the transition. To address this concern, we take an instrumental variables approach. We estimate an IV probit model in which we instrument the perfectly anticipated golden hello.[32] We conjecture that a country's past voting behavior in the UN General Assembly can be used as an instrument for whether a golden hello will be forthcoming or not. In particular, we focus on votes cast in line with the USA. Previous research has shown that voting in line with the USA significantly increases the probability of receiving an IMF or a World Bank program.[33] We follow the rule propose by Thacker (1999) and code votes in accordance with the USA as a 1, abstentions or absences as a 0.5 and votes opposite to the USA as a 0. We then sum up all the values for all votes in a given year and divide by the total number of votes cast in that year. This way, we obtain a variable ranging from 0 to 1, with 1 representing total agreement with the USA and 0 representing total disagreement. Using this variable (lagged one period relative the variable we want to instrument), we conduct a Wald test of exogeneity. The p-value on this test range from 0.16 to 0.62. This suggests that we are not facing a problem of endogeneity and goes a long way in dispelling the concern about simultaneity bias. Nevertheless, we report the second stage IV results in Table 4. We observe that the instrumented perfectly anticipated golden hellos are significant at the one percent level in all cases.

5 Conclusion

This paper contributes to an extensive theoretical and empirical literature on the causes of political transitions. Theoretically, we demonstrate within the framework of Acemoglu and Robinson's (2001) model of political transitions how expectations about transfers (concessional) from international financial institutions to newly established political regimes – golden hellos – cause political instability. Empirically, we find that golden hellos from the IMF or the World Bank increase the probability of a transition to democracy but decreases the probability democratic survival. This finding is new to the literature on the political economy of international organization. Equally importantly, we provide a new test of Acemoglu and Robinson's (2001) theory of political transitions and interpret our evidence as being consistent with this theory.

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[32]We only got one instrument, so we cannot instrument all the leads. As a consequence, we only instrument one at the time for the significant leads from specification (1) in Table 2 and Table 3, respectively.

[33]See Thacker (1999), Stone (2002), Vreeland (2005), Barro and Lee (2005), Dreher and Jensen (2007) and Kilby (2009).

Table 4: IV Probit Estimations, 1970 - 2002

	(1) Transitions to democracy	(2) Transitions to democracy	(2) Democratic survival
log GDP p.c. PPP, t-1	0.137***	0.095	0.208
	(0.058)	(0.109)	(0.104)
IV New IMF program, t+2	0.508***		
	(0.070)		
IV New World Bank program, t+1		0.115***	
		(0.067)	
Previous transitions, t-1	0.122	0.147	
	(0.098)	(0.096)	
OECD	0.583	0.136	
	(0.568)	(0.850)	
Muslim	-0.317	-0.767***	
	(0.314)	(0.288)	
Share of fuel exports, t-1	-0.001	0.001	
	(0.002)	(0.002)	
Growth of GDP p.c. PPP, t-1	-0.012	-0.018	
	(0.015)	(0.016)	
IV New World Bank program, t+2			-0.139***
			(0.049)
Military leader, t-1			-0.283
			(0.571))
Neighboring democracies			0.572
			(0.815)
Previous transitions, t-1			0.078
			(0.461)
Observations	849	849	572
Wald test	1.98	1.16	0.24
	[0.159]	[0.281]	[0.624]

Notes: The table reports the maximum likelihood estimations of the Probit models with continuous endogenous regressors. Standard errors are given in parentheses below coefficient. */**/*** indicate significance at the 10/5/1 %-level. Instrument in IV New IMF program$_t + 2$ and IV New World Bank program$_t + 2$ is country j's voting behavior in the UN General Assembly. p-values for the Wald test are between square brackets.

We show that the golden hello is a source of political instability. In general, this is an undesirable side-effect of providing newly established political regimes with additional finance. Importantly, however, an obvious and easy-to-implement policy conclusion flows directly from the analysis: golden hellos should only be granted to newly established democracies. The effect of this would be encourage transitions to democracy while minimizing subsequent incentives for political reversals. Fostering democracy, accountability and the rule of law – good governance – is on the agenda of all the major international financial institutions. Selective use of golden hellos could be a useful tool (but clearly not the only one) in pushing this agenda forward.

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6 Appendix

Deriving condition (1) The poor benefit from a transition to democracy for two reasons. Firstly, their income is higher than under autocracy (but lower than under socialism). Secondly, they share in the golden hello or hellos if multiple transitions take place. We are seeking a condition that ensures that the poor will "cancel" the revolution if the rich grant them voting rights. In the absence of the golden hello, unconsolidated democracy, understood as a situation in which the rich grant voting rights when the state is $(G, \mathcal{A})$ and mount a coup when the state is $(G, \mathcal{D})$, defines a lower bound on the welfare of the poor under democracy. Thus, if this can prevent a revolution by dominating a transition to socialism for $\sigma_{\mathcal{D}} = \sigma_{\mathcal{A}} = 0$, so can any other type of democracy with or without a golden hello. Formally, we seek a condition that ensures

$$\frac{y_P(\mathcal{S})}{1 - \beta} - \mu \leq y_P(\mathcal{D}) + \sigma_{\mathcal{D}} + \beta W_P(\mathcal{D}) \tag{12}$$

where

$$W_P(\mathcal{D}) = \psi \left(y_P(\mathcal{A}) + \sigma_{\mathcal{A}} + \beta W_P(\mathcal{A}) \right) + (1 - \psi) \left(y_P(\mathcal{D}) + \beta W_P(\mathcal{D}) \right)) \tag{13}$$

and

$$W_P(\mathcal{A}) = \psi \left(y_P(\mathcal{D}) + \sigma_{\mathcal{D}} + \beta W_P(\mathcal{D}) \right) + (1 - \psi) \left(y_P(\mathcal{A}) + \beta W_P(\mathcal{A}) \right). \tag{14}$$

This yields two equations in two unknown, which we can solve to get

$$W_P\left(\mathcal{D}\right) = \frac{\psi y_P(\mathcal{A}) + (1 - \beta(1-2\psi) - \psi)y_P(\mathcal{D}) + \beta\psi^2\sigma_\mathcal{D} + (1 - \beta(1-\psi))\psi\sigma_\mathcal{A}}{(1 - \beta\left(1 - 2\psi\right))\left(1 - \beta\right)} \quad (15)$$

$$W_P\left(\mathcal{A}\right) = \frac{\psi y_P(\mathcal{D}) + (1 - \beta(1-2\psi) - \psi)y_P(\mathcal{A}) + \beta\psi^2\sigma_\mathcal{A} + (1 - \beta(1-\psi))\psi\sigma_\mathcal{D}}{(1 - \beta\left(1 - 2\psi\right))\left(1 - \beta\right)}. \quad (16)$$

For $\sigma_\mathcal{D} = \sigma_\mathcal{A} = 0$, substitution of this into equation (12) and rearrange gives

$$\mu \geq \frac{y_P(\mathcal{S}) - y_P(\mathcal{D})}{1 - \beta} - \frac{\beta\psi\left(y_P(\mathcal{A}) - y_P(\mathcal{D})\right)}{(1 - \beta\left(1 - 2\psi\right))\left(1 - \beta\right)} \equiv \underline{\mu}. \quad (17)$$

This is a condition that only depends on the parameters of the model, not on the strategies of the rich and poor, and it is sufficient, not necessary, to prevent a revolution.

Defining equilibrium   A Markov perfect strategy determines for each player the appropriate action as a function of the current state of the world only, i.e., $\left(S^S, \mathcal{A}\right)$, $\left(S^S, \mathcal{D}\right)$ or $\mathcal{S}$, where $S^S \in \{G, B\}$. In state $\left(S^S, \mathcal{A}\right)$, the action space of the rich consists of a decision to democratize or not, while in state $\left(S^S, \mathcal{D}\right)$, the action space of the elite is to mount a coup or not. Since state $\mathcal{S}$ is absorbing, we need not specify the strategy of the rich in this state. When the state is $\left(S^S, \mathcal{A}\right)$, a strategy of the poor is a function of the state of the world and the rich's decision to democratize or not. When the state is $\left(S^S, \mathcal{D}\right)$, poor's strategy is simply a function of the state. The strategy determines the appropriate action of the poor. In state $\left(S^S, \mathcal{A}\right)$, their action space is a decision to mount a revolution or not, while in state $\left(S^S, \mathcal{D}\right)$, they are not required to take any actions. A pure strategy Markov perfect equilibrium is then defined as a set of strategies for rich and the poor that are best responses to each other for all possible states.

Equilibrium when the revolution constraint not binding   Consider the case in which the revolution constraint is never binding $\left(\mu > \mu^*\right)$. The poor find it too expensive to organize a revolution whatever the social conditions are: they prefer perpetual autocracy to a revolutionary transition to socialism. In this case, any transition to democracy is voluntary but the transition is not inevitable and may not last. When the transition to democracy is for good, we say that the economy transits to *perpetual democracy.* On the other hand, when the transition to democracy is only temporary, we say that the economy transits to *unstable democracy.* In the latter case, the rich grant voting rights to the poor in the very first period, but mount a coup against the democracy at the next opportunity, for again to grant voting rights after just one period of autocracy. Finally,

if no political transitions ever take place, we say that the economy is a *perpetual autocracy*.

Since by assumption $\mu > \mu^*$, the poor never attempt a revolution at stage 4. Anticipating that at stage 3, the rich effectively face the choice between three strategies:

1. Perpetual autocracy: Irrespective of the social state, the rich never democratize. The economy continues to be autocratic and each rich gets $\frac{y_R(\mathcal{A})}{1-\beta}$.

2. Perpetual democracy: Irrespective of the social state, the rich democratize in the first period and never attempt a coup in subsequent periods. The economy is a democracy for ever and each rich expect to gets $\frac{y_R(\mathcal{D})}{1-\beta} + \sigma_\mathcal{D}$, where $\sigma_\mathcal{D}$ is the expected value of the golden hello triggered by a democratization.

3. Unstable democracy: Irrespective of the social state, the rich democratize each time the political state is $\mathcal{A}$ and initiate a coup each time the state is $(G, \mathcal{D})$.[34] Each rich expects to get

$$\frac{y_R(\mathcal{D}) + \psi \beta y_R(\mathcal{A}) + (1 - (1 - \psi)\beta)\sigma_\mathcal{D} + \psi\beta(\sigma_\mathcal{A} - \phi)}{(1 - \beta)(1 + \psi\beta)} \tag{18}$$

where $\sigma_\mathcal{D}$ and $\sigma_\mathcal{A}$ are the expected values of the golden hello after a transition to democracy and autocracy, respectively. To derive condition (18), we calculate the value of following strategy 3 starting from $S_t^{Pol} = \mathcal{A}$. Since the rich democratize no matter what the social state is, the value is

$$W_R(\mathcal{A}) = y_R(\mathcal{D}) + \sigma_\mathcal{D} + \beta W_R(\mathcal{D}). \tag{19}$$

To evaluate this, we need to calculate the continuation value starting from $S_t^{Pol} = \mathcal{D}$, i.e., $W_R(\mathcal{D})$. If the social state is G, then the rich mount a coup and there is a transition to autocracy. If the social state is B, then the rich does nothing and the democracy persists for another period. We can, therefore, write

$$W_R(\mathcal{D}) = \psi(y_R(\mathcal{A}) - \phi + \sigma_\mathcal{A} + \beta W_R(\mathcal{A})) + (1 - \psi)(y_R(\mathcal{D}) + \beta W_R(\mathcal{D})). \tag{20}$$

Solving this equation for $W_R(\mathcal{D})$ gives

$$W_R(\mathcal{D}) = \frac{\psi(y_R(\mathcal{A}) - \phi + \sigma_\mathcal{A} + \beta W_R(\mathcal{A})) + (1 - \psi)y_R(\mathcal{D})}{1 - \beta(1 - \psi)} \tag{21}$$

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[34]If democratization, by construction, is followed by a coup, it is never optimal for the elite to democratize and then not to initiate a coup the first time after that when $S_t^S = G$. Thus, we can focus on the comparison of strategy 2 and strategy 3.

Substituting this back into equation (19) and rearranging gives equation (18).

The equilibrium strategy of the rich depends on the values of $\sigma_{\mathcal{D}}$, $\sigma_{\mathcal{A}}$ and ϕ. We can defined the following three thresholds. Firstly, a direct comparison between strategy 1 and 2 shows that the rich prefer perpetual democracy to perpetual autocracy if and only if $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^1$ where

$$\sigma_{\mathcal{D}}^1 = \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{1 - \beta}. \tag{22}$$

Secondly, a comparison between strategy 1 and 3 shows that the rich prefer unstable democracy to perpetual autocracy if and only if $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}})$, where

$$\sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}}) = \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{1 - (1 - \psi)\beta} + \frac{\psi\beta(\phi - \sigma_A)}{1 - (1 - \psi)\beta}. \tag{23}$$

Thirdly, comparing strategies 2 and 3, we see that the rich prefer unstable democracy to perpetual democracy if and only if $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^3(\phi, \sigma_{\mathcal{A}})$ where

$$\sigma_{\mathcal{D}}^3(\phi, \sigma_{\mathcal{A}}) = -\frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{\beta} + \frac{(\phi - \sigma_A)}{\beta}. \tag{24}$$

Given these thresholds, we can state the following result.

Proposition 3 *Suppose the initial political state is autocracy and that $\mu > \mu^*$. Then for all $\sigma_{\mathcal{D}} \neq \left\{\sigma_{\mathcal{D}}^1, \sigma_{\mathcal{D}}^2, \sigma_{\mathcal{D}}^3\right\}$ there exists a unique pure strategy MPE such that*

1. *If $\sigma_{\mathcal{D}} > \max\left\{\sigma_{\mathcal{D}}^2, \sigma_{\mathcal{D}}^3\right\}$, then the economy becomes an unstable democracy. The rich democratize each time the political state is $\mathcal{A}$ and mount a coup each time the state is $(G, \mathcal{D})$.*

2. *If $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^1$ and $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^3$, then the economy becomes a perpetual democracy. The rich democratize in the first period and never attempt a coups after that.*

3. *Otherwise, the economy is a perpetual autocracy.*

Proof. Begin by noting the following facts about the three thresholds defined in the text above. There exists a value of the cost of a coup, $\widetilde{\phi}$, such that i) $\sigma_{\mathcal{D}}^2(\widetilde{\phi}, \sigma_{\mathcal{A}}) = \sigma_{\mathcal{D}}^3(\widetilde{\phi}, \sigma_{\mathcal{A}}) = \sigma_{\mathcal{D}}^1$, ii) $\sigma_{\mathcal{D}}^1 \geq \sigma_{\mathcal{D}}^2(\widetilde{\phi}, \sigma_{\mathcal{A}}) \geq \sigma_{\mathcal{D}}^3(\widetilde{\phi}, \sigma_{\mathcal{A}})$ for $\phi \leq \widetilde{\phi}$ and iii) $\sigma_{\mathcal{D}}^3(\widetilde{\phi}, \sigma_{\mathcal{A}}) > \sigma_{\mathcal{D}}^2(\widetilde{\phi}, \sigma_{\mathcal{A}}) > \sigma_{\mathcal{D}}^1$ for $\phi > \widetilde{\phi}$. The optimal strategy of the poor is to never initiate a revolution. Given that, the decision of the rich to democratize or not is independent of the social state and the rich democratize only when it is in their interest to do so. The rich prefer unstable democracy to perpetual autocracy or democracy

if and only if $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}})$ and $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}})$. The rich prefer perpetual democracy to perpetual autocracy or unstable democracy if and only if $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^1$ and $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^3(\phi, \sigma_{\mathcal{A}})$. The rich prefer perpetual autocracy to the other alternatives if and only if $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^1$ and $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}})$. The equilibrium strategy of the rich then is i) if $\sigma_{\mathcal{D}} > \max\left\{\sigma_{\mathcal{D}}^2, \sigma_{\mathcal{D}}^3\right\}$, democratize when the state is $(S^S, \mathcal{A})$ for $S^S \in \{B, G\}$, mount a coup when the state is $(G, \mathcal{D})$, and do nothing when the state is $(B, \mathcal{D})$; ii) if $\sigma_{\mathcal{D}} > \sigma_{\mathcal{D}}^1$ and $\sigma_{\mathcal{D}} < \sigma_{\mathcal{D}}^3(\phi, \sigma_{\mathcal{A}})$, democratize in period 1 irrespective of the social state and never attempt a coup; iii) If $\sigma_{\mathcal{D}} < \min\left\{\sigma_{\mathcal{D}}^1, \sigma_{\mathcal{D}}^2(\phi, \sigma_{\mathcal{A}})\right\}$, never democratize and never attempt a coup ∎

In the absence of a credible threat of revolution ($\mu > \mu^*$) and with the average golden hello being zero ($\sigma_{\mathcal{D}} = \sigma_{\mathcal{A}} = 0$), the only possible equilibrium outcome is perpetual autocracy. So, expectations of a golden hello may induce democratization in situations where autocracy would otherwise have been perpetual, i.e., the golden hello creates regime instability. Interestingly, even if $\sigma_{\mathcal{D}} = 0$ and a newly established democracy cannot expect to be rewarded with a golden hello, it is still possible that the rich democratize voluntarily. This happens if unstable democracy yields higher payoff than perpetual autocracy (which for $\sigma_{\mathcal{D}} = 0$ is preferred by the rich to perpetual democracy). A simple calculation shows that this requires that $\sigma_{\mathcal{A}} \geq \frac{y_R(\mathcal{A}) - y_R(\mathcal{D})}{\psi\beta} + \phi$. Thus, if the expected golden hello to a newly established autocracy is sufficiently larger, it is optimal for the rich to democratize, not because this is desirable in itself, but because of the expectation of the golden hello triggered when the rich take power back in a future coup.

Deriving condition (3) In perpetual autocracy each rich gets $\frac{y_R(\mathcal{A})}{1-\beta}$ while in perpetual democracy each rich expects to get $\frac{y_R(\mathcal{D})}{1-\beta} + \sigma_{\mathcal{D}}$. In unstable democracy each rich expects to get

$$\frac{y_R(\mathcal{D}) + \psi\beta y_R(\mathcal{A}) + (1 - (1-\psi)\beta)\sigma_{\mathcal{D}} + \psi\beta(\sigma_{\mathcal{A}} - \phi)}{(1-\beta)(1+\psi\beta)} \tag{25}$$

As simple comparison between these payoffs shows that perpetual autocracy is preferred to the other regimes by the rich if condition (3) holds.