DO IMF AND WORLD BANK INFLUENCE VOTING IN THE UN GENERAL ASSEMBLY?

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Abstract

Using panel data for 188 countries over the period 1970-2002 this paper empirically analyzes the influence of the IMF and the World Bank on voting patterns in the UN General Assembly. Countries receiving adjustment programs and larger non-concessional loans from the World Bank vote more frequently in line with the average G7 country. The same is true for countries obtaining non-concessional IMF programs. Regarding voting coincidence with the US, World Bank (concessional and non-concessional) loans have a significant impact, while the IMF has not. These results are robust to the inclusion of control variables and method of estimation.

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1. Introduction

Ever since their inception, the International Monetary Fund and the World Bank have been accused of being a tool of their major shareholders, and especially the US.[1] Woods (2003) clearly documents that the US virtually controls major decisions at IMF and World Bank; Fratianni and Pattison (2003) summarize evidence showing that the G7 are in full control of the IMF on the big issues and that staff autonomy is restricted to areas which are of marginal interest to its shareholders. In the words of Rieffel (2003: 28-29), "The IMF is an instrument of the G-7 countries. There is no example that comes easily to mind of a position taken by the IMF on any systematic issue without the tacit, if not explicit, support of the United States and the other G-7 countries."[2] The recent empirical literature on political influences on the IMF shows that developing countries indeed get better terms from the IMF, when they have closer ties with the US, as measured by their voting behavior in the UN General Assembly (Thacker 1999, Barro and Lee 2005, Stone 2002, Vreeland, 2005, Dreher and Jensen 2007). Similarly, the US interferes with World Bank policies when its national interests are at stake (Gwin 1997). Schoulz (1982) documents that the US frequently influences the World Bank's "interests" in certain loans. In some cases, the Bank even violated its charter to satisfy US politicians. Consequently, Frey and Schneider (1986) find the distribution of Bank loans to be dominated by political considerations; Fleck and Kilby (2001) show that World Bank lending significantly reflects US influence. More recently, Faini and Grilli (2004) report that World Bank (and IMF) lending is influenced by US and EU.

However, while there is ample evidence that the G7 countries control the flow of IMF and World Bank money, it has never been investigated whether the recipients of this money adapt their behavior to please the keepers of the funds. This is the question our paper deals with. Specifically, we investigate empirically whether IMF and World Bank involvement increases the probability that a country votes in line with G7 countries in the UN General Assembly.

The question addressed here is related to the literature on the impact of bilateral aid on UN General Assembly voting patterns. A number of previous studies investigate this question

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[1] See Gisselquist (1981), Loxley (1986) and Barnebeck Andersen, Hansen and Markussen (2004) for anecdotal evidence.

[2] For example, a report for the US House of Foreign Affairs Committee concludes that the United States prevents for political reasons certain countries from borrowing IMF money, and that other nations exert their influence in a similar (but less rigorous) manner (Kwitny 1983).

(see section 2). Clearly, as compared to the Security Council, the power of the General Assembly is limited, and not all of its decisions are likely to be important for G7 countries. Still, there is ample evidence that G7 governments place some weight on the outcome of General Assembly votes. This is particularly true for the US. As has been pointed out by the US Department of State (1985), examining UN votes makes it possible "to make judgments about whose values and views are harmonious with our own, whose policies are consistently opposed to ours, and whose practices fall in between." A report from the same department in 2000 states "a country's behavior at the United Nations is always relevant to its bilateral relationship with the United States, a point the Secretary of State regularly makes in letters of instruction to new U.S. ambassadors" (quoted in Barnebeck Andersen, Harr and Tarp 2004: 15). It has been argued that the "State Department … places high value on the employment of foreign aid to … swing critical votes in international bodies" (Black 1968: 19). Thacker (1999: 54) cites a memo to the director of the Food for Peace Program noting that "at critical moments in the world's recent history, the U.S. 'bought' votes subtly and indirectly to support its stand in the General Assembly." Bennis (1997) claims that "U.S. influence in (and often control of) the UN comes in the form of coercing the organization to take one or another position, or to reject some other position, or pressuring a country or countries to vote a certain way in the General Assembly." As a specific example of US pressure on the Assembly, Bennis describes the US effort to overturning the 1975 resolution identifying political Zionism as a form of racism and racial discrimination. According to Bennis, "U.S. diplomats took off, criss-crossing the globe using Gulf War-tested methods of bribing and threatening other nations to win support for the repeal effort."

Overall, there is reason to believe that aid is not only given to help countries in economic distress but to achieve the donor's political targets. In fact, since the late 1940s every US administration considered foreign aid to be important in achieving foreign policy goals (Ruttan 1996). It has even been claimed that the primary purpose of US economic assistance is in promoting overall US policy objectives (Zimmerman 1993). According to Morgenthau (1962: 302), "the transfer of money and services from one government to another performs here the function of a price paid for political services rendered or to be rendered."

In summary, G7 countries are in control of IMF and Bank decisions, and can thereby use the international organizations to bribe or reward recipient countries. Moreover, G7 countries place some weight on General Assembly votes and there is also evidence that certain states in the Assembly are very susceptible to pressure (Keohane 1966). We therefore expect Fund and Bank involvement to influence voting patterns in the Assembly.

Our paper combines two strands of the literature and extends previous work on foreign aid and voting patterns in the UN General Assembly. As previous empirical studies did not cover extended periods of time, are inconclusive, and usually focus on US influences only, the analysis of foreign aid on voting patterns is interesting in its own right. However, the main contribution of this paper is to analyze for the first time, whether G7 countries employ the IMF and the World Bank to change the voting behavior of developing countries (or reward countries for voting with them). What we find is, basically, that IMF and World Bank indeed influence voting behavior in the Assembly. Countries with IMF and World Bank programs tend to vote more frequently in line with the G7 countries. The same is true for countries receiving larger non-concessional loans from the World Bank. We employ Extreme Bounds Analysis to test for the robustness of our results. While the basic results for IMF and World Bank hold, bilateral aid from G7 countries is not robustly related to voting in the General Assembly.

The organization of the paper is as follows. The next section provides a short overview of previous empirical work on bilateral and multilateral aid, and voting in the UN General Assembly. The third section discusses methodological issues. The fourth develops our hypotheses, whereas the fifth describes the data. In the sixth section we present the results of our analysis, while we discuss variations to our estimation approach in section seven. Finally, we provide a short summary.

2. Literature Review

The relevant literature can be divided in two parts. One studies the impact of voting on IMF and World Bank behavior; the other investigates the impact of foreign aid on voting.[3]

On the first point, Thacker (1999) was the first to test the hypothesis that conclusion of IMF programs depends on countries' voting behavior in the UN General Assembly. He employs two variables – one indicating a country's political agreement with the US, the other reflecting movement in political alignment. According to his results for the period 1985-94, political proximity has no statistically significant impact when serial correlation is taken into

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[3] The literature on the determinants of voting decisions is not confined to the UN General Assembly. Levitt (1996) and Rothenberg and Sanders (2000), e.g., analyze voting patterns in the US Congress. Boockmann (2003) looks at voting in the International Labour Organization, the focus of Eldar (2004) is on the UN Security Council and General Assembly, international courts, the WTO, and the International Whaling Commission. A general survey of the determinants of aid allocation is Neumayer (2003). We do not discuss this literature here.

account. However, a movement to the US significantly increases the probability of receiving an IMF program. The results also show that the impact of a movement towards the US on the probability to obtain IMF programs does not depend on the initial position. A movement towards the US position is correlated with IMF involvement regardless of the initial political stance of the recipient country. Interestingly, a country starting at a point very distant from the US has a much better chance of receiving a program when moving towards the US position than a country that is closely allied with the US, but slightly moves away from it.[4]

Oatley and Yackee (2004) show for the period 1985-1998 that the IMF offers larger loans to closer US allies, as measured by UN voting patterns. However, this result is not completely robust to the underlying specification. Barro and Lee (2005) employ averages for the voting behavior of France, Germany and the UK, and an individual variable for the US. As it turns out, only voting with the European countries significantly increases the amount of IMF loans disbursed over the period 1975-2000.

Edwards (2003) also tests whether voting similarity with the USA in the General Assembly influences the probability of being under an IMF program. His results for 106 countries with programs in effect between 1979 and 1995 show that US alliance does not increase a country's probability of having such a program. According to Stone (2003) who analyzed monthly data on 53 African countries for 1990-2000, enforcement of IMF conditionality depends on US foreign aid, membership in post-colonial international institutions, and UN General Assembly voting in line with France. Dreher and Jensen (2007) find for a sample of 206 letters of intent over the period 1997-2003 that the number of conditions on an IMF loan depends on a borrowing country's voting pattern in the UN General Assembly. Closer allies of the G7 receive IMF loans with fewer conditions.

Regarding the World Bank, Barnebeck Andersen, Hansen and Markussen (2004) analyze a panel of 60 countries over the period 1991-2000. According to their results, countries voting with the US on votes classified as important by the State Department are significantly more likely to receive International Development Agency loan commitments.

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[4] Similarly, Alesina and Dollar (2000) analyze the impact of voting on bilateral aid. Results from their panel analysis show that countries voting with Japan receive more bilateral aid, while voting with the US has no impact when controlled for US interests in the Middle East. Voting with other major donor countries has no impact. Other papers examining the impact of voting in the UN General Assembly on bilateral aid include Ball and Johnson (1996), Boschini and Olofsgard (2001), Alesina and Weder (2002), and Fleck and Kilby (2005). Kilby (2006) employs UN voting patterns in his analysis of donor influence on the Asian Development Bank.

Table 1: Studies of Voting in the UN General Assembly and Aid

Study	Period	Sample	Main Focus	Result
Kato (1969)	1961-64	60 countries	Voting with USA	Aid has no impact on voting
Bernstein and Alpert (1971)	1961-68	126 countries	Voting with USA	Aid increases voting coincidence
Rai (1972)	1961-65	66 countries	Voting with USA	Aid increases voting coincidence
Wittkopf (1973)	1962-67	96 countries	Voting with OECD countries	Aid increases voting coincidence
Rai (1980)	1967-76	71-84 countries	Voting with USA	Aid increases voting coincidence
Kegley and Hook (1991)	1984-89	31 countries	Voting with USA	Aid has no impact on voting
Sexton and Decker (1992)	1988	146 countries	Voting with USA	Aid has no impact on voting
Lundborg (1998)	1948-79	non-communist UN members	Voting with USA	Aid increases voting coincidence
Wang (1999)	1984-93	65 countries	Voting with USA	Aid increases voting coincidence
Morey and Lai (2003)	1950-91	all UN members	Voting with USA	Aid has no impact on voting

The second question, the impact of foreign aid on voting, has also received much attention. Table 1 summarizes the main results of those studies. As can be seen, empirical findings are, however, inconclusive. Some studies conclude that aid is ineffective in influencing voting behavior, while others find the expected positive relation between bilateral aid and voting similarity.

With respect to the US, Kato (1969), Kegley and Hook (1991), Sexton and Decker (1992) and Morey and Lai (2003) belong to the first group. Bernstein and Alpert (1971), Rai (1972, 1980), Wittkopf (1973), Lundborg (1998) and Wang (1999) belong to the second. While earlier studies cover rather short periods of time and mostly rely on bivariate

regressions or correlation analysis, the majority of the more recent contributions use panel methods over longer horizons. Rai (1980) reports of generally low coincidence between US and African as well as Middle Eastern or South Asian votes; coincidence between US and Latin American votes is much higher. Russett (1967), employing factor analysis, shows that regional clusters are most important for voting alignment. According to Kim and Russett (1996), today the North-South divide explains a huge share of variation in voting behavior, while it has been the East-West divide during the Cold War.[5] Focusing on votes that have been classified by the US State Department as being important, Wang (1999) finds for 65 countries between 1984 and 1993 that a change in the level of US aid significantly increases voting coincidence, while the coefficient of the level itself is insignificant. A dummy for democratic countries, a country's military strength, and its level of economic development did not significantly influence voting patterns. Lundborg (1998) focuses on relative support for the USA and the Soviet Union between 1984-1979. Estimating simultaneous regressions, he finds that both countries employed aid to stimulate international political support, whereas aid recipients allocated their support to stimulate aid.

Donor countries other than the US and the Soviet Union have less frequently been investigated. An early exception is Wittkopf (1973), focusing on the sixteen members of the OECD's Development Assistance Committee (DAC) and the Soviet Bloc for the years 1962 and 1967. As results of his correlation analysis show, however, only US foreign aid is significantly associated with voting patterns.

2. Measuring voting coincidence

The main question we address in this paper is whether or not IMF and/or World Bank programs and loans affect the voting behavior of recipient countries in the UN General Assembly. In analyzing this question, we face several problems.

First, we need to establish as of how to measure voting coincidence in the UN General Assembly. There are several possibilities. Thacker (1999), among others, codes votes in agreement with the US as 1, votes in disagreement as 0, and abstentions or absences as 0.5.[6]

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[5] To the contrary, Voeten (2000) finds that the position of countries still corresponds more closely to their Cold War East-West dimension than to the North-South dimension.

[6] Similarly, Gartzke and Jo (2002) and Morey and Lai (2003) code voting coincidence between -1 and 1, with abstentions being in between compliance and non-compliance. Russett (1967) and Rai (1972) code each country either 2 (yes), 1 (abstain or absent), or 0 (negative). Focusing on abstentions might be important as donors might

Wittkopf (1973), Sexton and Decker (1992) and Barro and Lee (2005) employed the fraction of times a country votes the same as the country of interest (either both voting yes, both voting no, both voting abstentions, or both being absent), Kegley and Hoock (1991) simply discarded abstentions or absences.[7] In any case, the resulting numbers are then divided by the total number of votes in each year. We concentrate on the method proposed by Thacker (1999) for both theoretical and statistical reasons. The difference between the three approaches lies in the way they weigh abstentions or absences, giving it a weight of 0, 0.5 or 1 in case the potential donor country does vote. Of course, any of these weights is arbitrary, but we prefer not opting for a corner solution and hence stick to the definition of Thacker (1999) in which a weight of 0.5 is used. Furthermore, from a statistical point of view this produces a dependent variable with a nicely bell-shaped distribution (as opposed to the other two definitions where the tails of the distribution do become rather fat). Hence, it is less likely that our results will be driven by extreme observations. Nevertheless, we test the robustness of our results by also employing the methods of Kegley and Hoock (1991) and Barro and Lee (2005).

In addition to the data based on voting behavior in the same year only – as is the case with the above three definitions – we also calculate a moving average of the dependent variable. It is quite likely that proximity to the G7 countries only evolves slowly over time, and voting behavior of previous years might therefore give important information about a country's current position. Previous years enter the moving average with the weights 0.45, 0.25, 0.15, 0.10, and 0.05.

An important issue in previous studies has been the question which UN General Assembly votes to include in either definition of voting coincidence. While the majority of the literature simply includes all votes, some researchers focus on "important" votes only. Clearly, the amount of effort a country puts on influencing others will depend on the importance of a vote. It has been pointed out in the introduction that not all votes in the General Assembly are likely to be of great importance to the US and other G7 countries. Focusing the analysis on a sub-set of votes might thus be superior. However, inclusion of all votes has also been defended. Wittkopf (1973) states that none of the alternatives focusing on

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bribe governments not only to comply, but also to avoid non-compliance (Zimmermann 1993, Palmer et al. 2002, Hawes 2004).

[7] Yet an alternative method has been suggested by Brams and O'Leary (1970) and employed, e.g., by Wittkopf (1973). They subtract the expected agreement from actual agreement and divide by the former. Expected agreement is based on the actual distribution of votes on each General Assembly roll call vote.

"important" votes only is preferable to the general approach. Wittkopf replicates his overall results including only those votes on which the USA and the Soviet Union disagreed, finding that the results do not differ substantially from the analysis including all votes. Similarly, he replicates the previous analysis of Russett (1967), and also finds no substantial differences between "important" votes and all votes.

Moreover, labeling issues as being important is highly subjective (e.g. Kegley and McGowan 1981). At least for the United States this could potentially be solved in employing the categorization provided by the State Department. The transmission of US foreign policy preferences from the State Department to the World Bank and the IMF is not, however, necessarily a direct one (Thacker 1999), as it is mainly the Treasury controlling IMF and World Bank (Kahler 1990).[8] The State Department's preferences might thus not give a good indication as to actual lobbying efforts.

For two reasons the main focus of this paper is on all votes, including non-key votes also. First, the classification into key votes and non-key votes is not available for countries other than the US. And second, the US State Department classifies those votings since 1983 only. Our study deals with a broader range of countries and a longer period of time (1970-2002). Nevertheless, we provide an analysis employing only key votes for comparison.

Some of the previous studies exclude nearly unanimous votes, as it is unlikely that countries bribe on those. Clearly, however, the threshold above which votes are to be excluded is purely subjective. In our robustness tests we discard votes where more than 80 percent of the countries agreed on the outcome.

Voting alignment is also likely to depend on the underlying topic. Voting behavior of each country on every roll call vote in the UN General Assembly since 1946 has been documented by Voeten (2004). With almost 20 percent of all votes during our sample, decisions related to Israel account for the by far biggest share of all.[9] We want to ensure that our results are not driven by this. In addition to the above definitions of the voting variable, we thus also construct a variable where decisions concerning topics related to Israel are excluded.

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[8] See also Ruttan (1996).

[9] Other topics which received relatively large attention in the UN General Assembly include 'apartheid', 'arms' and 'nuclear power'. However, each of these took a share of only 9 percent in total voting. Results do not appear to be driven by one of these specific topics.

Table 2: Correlation of different definitions of voting coincidence (G7)

	Thacker	Barro-Lee	Kegley-Hoock	Mov.Avg.	US keyvotes	No unanimous	No Israeli topics
Thacker	1.00	0.62	0.54	0.94	0.68	0.96	0.95
Barro-Lee	5096	1.00	0.96	0.91	0.73	0.98	0.95
Kegley-Hoock	5096	5096	1.00	0.90	0.69	0.98	0.94
# Observations	5096	5096	5096	4828	3315	5096	5096

Notes: variables are corrected for country- and time-specific effects.
Sample covers up to 188 countries between 1970-2002.

The bottom row of Table 2 reports the number of observations available for the various dependent variables in case we focus on an artificially constructed G7 donor country (see below). The correlation coefficients – after having corrected for both recipient-country- and time-specific effects – are in the upper part. Our annualized sample of up to 188 countries covering 1970-2002 includes around 5'000 observations. Only in case we concentrate on US key votes, the number of country-years drops to about 3'300.

Overall, the correlations among most of the various definitions are rather high. Excluding nearly unanimous votes from any of the three baseline definitions, i.e. Thacker, Barro-Lee or Kegley-Hoock, leads to a correlation of 0.96 or above. Correlation of the moving average versions with these three definitions also always exceeds 0.9. Even leaving out Israeli topics hardly affects voting coincidence; the correlation coefficient is at least 0.95. Hence, it is rather unlikely that our results will depend on issues like these. Nevertheless, we return to this below.

It is more likely that our results will depend on focusing on key votes only, and on how we include abstentions and absences. The correlation between the three baseline definitions and the same definitions including only US key votes is still high, however, amounting to roughly 0.7. This is in line with the results of Voeten (2000), showing that a country's position in the Assembly is independent of the importance of the issues.

The lowest correlations are found between the three ways of dealing with abstentions or absences. For instance, the correlation between our main voting index according to the definition of Thacker and those according to the definition of Kegley and Hook is only 0.54.

It will thus be important to test for the robustness of our findings using these alternative definitions as to deal with abstentions or absences.

The next issue concerns choosing the relevant donor country (or vote of reference) for a recipient country. The literature assumes preferences of G7 countries to be sufficiently homogenous to attribute domination of IMF and World Bank to this group (Bird and Rowlands 2001). Most of the literature focuses on the US as the potential donor. However, measuring voting compliance with only the US or each G7 country individually might bias the results of the empirical analysis against finding support for the political pressure hypothesis. As the G7 countries rarely all vote in line among themselves, their individual pressure on the international organizations might neutralize them. As one example, there is evidence that France was trying to buy votes (in the Security Council) in order to oppose the Second Gulf War, while the US was paying for support (Eldar 2004). Another case in point is the contested bid by Germany and Japan to become permanent members of the UN Security Council, which has been opposed by other members of the Security Council. To take this into account, we do not only analyze compliance with each G7 country individually, but also construct a variable reflecting the average vote of the G7 countries.[10] This has been done by Barro and Lee (2005) for France, Germany and the UK, and by Neumayer (2003) for all DAC donors. We weigh each G7 countries' vote with its quota in the Fund to take its voting power in the international organizations into account.

Table 3: Correlation of voting coincidence among G7 countries

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
Canada (CAN)		0.95	0.96	0.92	0.99	0.97	0.75	0.95
France (FRA)			0.98	0.91	0.97	0.91	0.71	0.96
UK (GBR)				0.92	0.97	0.92	0.77	0.99
Germany (DEU)					0.93	0.89	0.71	0.92
Italy (ITA)						0.96	0.74	0.97
Japan (JPN)							0.73	0.92
United States (USA)								0.79
G7								

Notes: variables are corrected for country- and time-specific effects. Except for Germany (which became member in 1973 (4723 observations)), each sample covers 188 countries, 1970-2002 (5096 observations).

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[10] According to Pallansch and Zinni (1996), G7 voting patterns tend to congregate together in a Euclidian space. However, Alesina and Dollar (2000) find that voting blocks in the UN General Assembly are sufficiently distinguishable for the US, France, Japan and the UK to use them separately in econometric analysis.

Table 3 presents the correlation of voting coincidence among G7 countries. The last column shows how voting of each G7 country according to the definition of Thacker is correlated with the "voting with the G7 countries" variable. In general, these correlations are rather high. Despite the fact that the US gets the largest weight (due to its high quota with the Fund) in our G7 average, the only exception appears to be the correlation between these two. These findings are confirmed by the correlation coefficients between each pair of G7 countries. Again the correlation coefficients with the US are relatively low. Hence, with respect to the other six G7 members – and in particular Canada, France, the UK, and Italy – there is a high degree of voting coincidence.

Table 4: Voting coincidence across different regions in the world

	#Cnt	#Obs	CAN	DEU	FRA	GBR	ITA	JPN	USA	G7
Entire world	188	5096	0.45	0.42	0.36	0.35	0.44	0.48	0.20	0.36
Europe, Western	19	507	0.73	0.71	0.64	0.65	0.73	0.71	0.46	0.65
Europe, Central & Eastern	20	414	0.59	0.59	0.53	0.51	0.59	0.60	0.34	0.52
North America	4	127	0.54	0.50	0.44	0.43	0.52	0.58	0.26	0.43
Central & Middle America	8	253	0.55	0.52	0.45	0.45	0.54	0.58	0.31	0.46
South America	8	264	0.57	0.53	0.46	0.46	0.55	0.60	0.30	0.46
Caribbean	13	368	0.53	0.50	0.45	0.43	0.52	0.56	0.30	0.44
Asia, Central & Western	9	118	0.60	0.60	0.55	0.54	0.60	0.62	0.37	0.54
Asia, Eastern & Southern	24	659	0.52	0.48	0.43	0.41	0.50	0.56	0.25	0.41
Oceania	14	242	0.61	0.57	0.52	0.52	0.60	0.62	0.39	0.52
Africa	53	1641	0.51	0.48	0.43	0.41	0.50	0.55	0.27	0.42
Middle East	16	503	0.52	0.48	0.42	0.41	0.50	0.55	0.27	0.42

Notes: sample covers 1970-2002. Regional classification is based upon the World Factbook of the CIA: http://www.cia.gov/cia/publications/factbook/fields/2144.html

Table 4 gives an impression of voting coincidence across regions (over the period 1970-2002). Not surprisingly, of all General Assembly members, Western European countries (other than G7 members) are most likely to vote in line with G7 countries. Countries in Eastern and Southern Asia, Africa and the Middle East are least likely to vote with the G7. Again voting coincidence with the US is – independent of the region of focus – the lowest of all. With only one exception, Japan has the highest correlation with each region separately. In case of Western Europe, Japan is surpassed by both Canada and Italy.

3. Towards a baseline model

The main question we address in this paper is whether or not IMF and World Bank programs and loans affect the voting behavior in the UN General Assembly. To answer that, we face several problems.

One of the main challenges in empirical analysis when there is no established benchmark is coming up with a reliable model. We employ a general-to-specific method to construct such a baseline model. In selecting potential variables for this baseline we employ a number of hypotheses put forward in the literature with respect to voting coincidence in the UN General Assembly. Once the baseline model is determined, we concentrate on testing our main hypotheses (Section 5).

3.1 Hypotheses for the baseline model

Hagan (1989) has pointed out that the political direction of governments might be important for voting in the UN General Assembly. Socialist countries are probably likely to share similar views on a range of topics. The same is true for central or right-wing governments. In addition to political proximity, a similar culture might lead to similar voting behavior (for a discussion of the argument see Voeten 2000). Particularly, Thacker (1999) has pointed out that, as countries become more democratic, they may also alter their UN voting behavior to reflect these changes. Democracies rarely fight wars against each other (Doyle 1986) and probably have interests closer to the G7 countries than dictatorships do. They agree, e.g., on principles like free speech, private property and elected representation (Wang 1999) and might thus form an alliance of liberal democracies against more dictatorial regimes.

Voeten (2000) provides empirical evidence. According to his results, the Western-Non-Western dimension is most important in explaining voting behavior in the General Assembly – with Western countries being democracies and Non-Western countries mostly being non-democratic for the major part of the sample period.

Hypothesis 1: Cultural and political proximity increases voting coincidence.

We measure cultural and political proximity with the G7 countries with an index of political rights and civil liberties, the change of that index, the rule of law, perceived corruption and bureaucratic quality.[11] We also include a dummy that is one if a country's

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[11] Appendix I lists all variables with their definitions and sources.

government has the same political color as the respective G7 country, i.e. both are either left-or right-wing governments.

A country's economic and political strength and its access to alternative capital sources might also be important for voting behavior. Arguably, politically and economically strong countries with easy access to private capital are less likely to accept bribes and are thus less likely to vote in line with G7 countries. Dependence might be higher in times of crises and political instability, or when private capital is less freely flowing in general. Highly indebted countries frequently have no alternative to IMF and World Bank loans, increasing their dependence. Natural resources and other potential revenues decrease dependence:

Hypothesis 2: Countries depending on foreign support are more likely to vote in line with G7 countries.

We employ a number of variables to proxy for dependence on foreign support: total aid received (in percent of GNI); the change in total received aid; a composite indicator of national capability; total external debt (in percent of GDP); the change in total external debt; a variable measuring ethnic tensions; the rate of inflation; current account balance (in percent of GDP); overall budget balance (in percent of GDP); GDP per capita; and real GDP growth.[12]

Other variables potentially important for UN General Assembly voting patterns are international trade and foreign direct investment. With greater interdependence among countries, cooperation is more likely (e.g. Oneal and Russett 1999). This is because interdependence might create similar preferences on certain topics. Moreover, strong interdependence can create fears of loosing access to markets. According to Keohane (1967), dependence on trade thus increases a country's responsiveness to external pressure. Foreign trade flows are a potential measure of foreign influence (Stone 2003), and the same is true for foreign direct investment. Economic ties might thus increase the probability of voting with the partner country.

However, strong economic ties with developed countries might as well create feelings of exploitation and could thus give rise to voting against these countries (Kim and Russett

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[12] In case the variables are used in both levels and first-differences, the level variable has been lagged by one period. This alleviates the interpretation of the estimated coefficients. The qualitative conclusions are not affected by this.

1996). The impact of trade and foreign direct investment on voting patterns is thus a priori ambiguous:

Hypothesis 3a: Trade flows and FDI increase the probability that a country votes in line with its partner country.

Hypothesis 3b: Trade flows and FDI reduce the probability that a country votes in line with its partner country.

These hypotheses are tested with exports and imports from the respective G7 country (in percent of GDP). Unfortunately, we cannot test for the impact of bilateral inflows and outflows of foreign direct investment, as inclusion of those variables would reduce the sample size well below 30 countries.

The literature review of the previous section gives raise to in particular one additional hypothesis regarding the determinants of countries' voting behavior in the UN General Assembly which is related to our main hypothesis. This final hypothesis is directly derived from this literature:

Hypothesis 4: Bilateral foreign aid, or changes in aid, increases the probability that a recipient country votes in line with the donor.

We employ net grants (in percent of GDP) from the respective G7 country and the changes thereof to test whether bilateral aid impacts on voting behavior.[13]

3.2 Selection of the baseline model

The regression is a pooled time-series cross-section analysis (with yearly data). The analysis covers the time period 1970-2002 and extends to a maximum of 188 countries for our dependent variable. Since some of the data are not available for all countries or years, the panel data are unbalanced and the number of observations depends on the choice of explanatory variables. We find significant fixed country and time effects in most specifications and therefore include them in our regressions. (However, the coefficients of the

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[13] We also included loans by the respective G7 country or countries and food aid, but did not have a sufficient number of observations for meaningful regression analysis.

country and time dummies are not reported in the tables.) As a consequence, we cannot include variables that do not change over time or are the same for all countries.[14]

In our first step of coming up with a suitable baseline model we apply a general-to-specific procedure. We include all variables derived from the hypotheses formulated above and then delete that variable with the lowest level of significance. With the remaining variables, this procedure is repeated until all coefficients are significant at the 5 percent level. In a second step we check whether any of the previously deleted variables would render significant when added again. These significant variables are step by step included. The two steps are repeated until a final model converges.

As was to be expected, the results of this procedure are to a certain extent donor-country specific. Table 5 shows that we do have some evidence in favor of the first three of our hypotheses. Hypothesis 1 on cultural and political proximity appears to be mainly backed up by our measure of democracy. More democratic societies tend to vote in line with G7 countries. A number of times we also find significant effects of the political color variable and corruption. Changes in democracy and bureaucratic quality each only matter for one particular donor country (Japan and, respectively, Germany).

With respect to hypothesis 2, we find very strong evidence that national capability lowers the probability of a country to vote in line with any of the G7 members. Note that this composite indicator of national capability is a measure of power based upon six indicators: military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population. Hence, as expected, countries which score high on this composite indicator are likely to be less dependent on foreign relationships and will therefore vote in a more autonomous manner. Also, a large budget deficit increases voting coincidence for a number of donor countries. External debt, inflation, GDP per capita and GDP growth only occasionally enter the regressions with a significant coefficient. With the exception of inflation, the results confirm that aid dependence increases voting coincidence, supporting our a priori hypothesis. Note that variables related to our other hypotheses, like (change in) total aid received (in percent of GNI), change in external debt or ethnic tension, are not selected by this general-to-specific approach.

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[14] Clearly, most former colonial powers retain strong ties with their former colonies, so colonies are probably more likely to vote in line with their former mother country. Table 4 and the literature reviewed in Section 2 stress the potential importance of regional clusters for voting alignment. Given the inclusion of fixed effects, we cannot test this, but do correct for it.

Table 5: General-to-specific results in selecting the baseline model

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
p-value Hausman test	0.00	0.00	0.01	0.01	0.04	0.04	0.00	0.04
Adj. R^2	0.93	0.93	0.93	0.86	0.92	0.91	0.89	0.93
#Obs	1144	1165	1159	1591	2391	1442	1562	1095
#Cnt	101	102	100	111	141	101	108	97
Period	82-97	82-97	82-97	82-97	73-01	75-00	82-97	82-97

Hypothesis 1: cultural and political proximity

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
Democracy [t-1]	0.010	0.010	0.009	0.008	0.008	0.008		0.005
	(5.59)	(5.75)	(4.75)	(4.18)	(8.02)	(6.84)		(2.58)
Change in democracy						0.005		
						(2.65)		
Political color inline			0.022			0.015	0.016	0.018
			(5.52)			(5.59)	(4.87)	(4.86)
Corruption	0.005	0.006	0.008				0.005	0.007
	(2.67)	(3.23)	(3.62)				(2.63)	(3.49)
Bureaucratic quality				-0.007				
				(-2.16)				

Hypothesis 2: dependency on foreign support

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
National capability	-3.812	-7.846	-8.623	-4.811	-4.250	-4.617	-8.203	-7.237
	(-2.76)	(-5.76)	(-6.04)	(-2.96)	(-4.96)	(-5.59)	(-6.11)	(-5.06)
External debt [t-1]						0.005		
						(2.33)		
Inflation						0.000		
						(-4.11)		
Budget balance	-0.001	-0.001	-0.001		-0.001	-0.001		-0.001
	(-2.94)	(-2.55)	(-3.10)		(-5.67)	(-2.57)		(-3.53)
GDP per capita [t-1]	-0.022						-0.039	
	(-2.09)						(-5.12)	
GDP growth							-0.001	
							(-4.58)	

Hypothesis 3: trade flows

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
Exports from donor					2.361			
					(2.97)			
Imports of donor				4.033	4.952	2.013	1.400	1.823
				(3.29)	(5.56)	(2.50)	(3.21)	(4.61)

Notes: sample covers 1970-2002. Country- and time-specific effects are included in all regressions. t-statistics are shown in parentheses. To alleviate the interpretation of the estimated coefficients, level variables have been lagged by one period in case we allow both levels and first-differences to be included in the most extensive specification.

For the relevance of bilateral trade flows we find some support for the hypothesis that countries exporting to a donor country vote more in line with the donor. Only in case of Italy, countries importing from it vote more in line with Italy as well. There is thus no evidence that

economic ties create feelings of exploitation, creating resentment against the trading partner, and leading to votes against the partner. The positive effects of interdependence clearly dominate here.

Table 5 shows that the determinants of voting coincidence differ across countries. However, for ease of comparison we prefer to have the same baseline model for all countries. Given that the evidence in Table 5 is in particular clear for our measures of democracy and national capability, we include these two variables in our baseline model.[15]

Table 6 reports the estimation results for our baseline model. Both the level of significance and the size of the estimated coefficients are very stable across the different G7 countries. The (absolute) coefficients for national capability range between 6.48 and 7.93, those for democracy between 0.01-0.013, and are all significant at the one percent level. The robustness of this baseline model to changes in its specification will be further explored below.

Table 6: Results for the baseline model

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
p-value Hausman test	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. R^2	0.86	0.89	0.89	0.86	0.87	0.83	0.82	0.89
#Obs	4286	4286	4286	4286	4285	4286	4286	4286
#Cnt	177	177	177	177	177	177	177	177
Period	73-01	73-01	73-01	73-01	73-01	73-01	73-01	73-01
National capability	-7.147	-7.506	-7.610	-6.476	-7.304	-7.064	-7.932	-7.686
	(-9.98)	(-11.29)	(-10.62)	(-7.34)	(-10.28)	(-10.26)	(-8.90)	(-10.70)
Democracy [t-1]	0.013	0.012	0.012	0.013	0.013	0.010	0.010	0.012
	(16.43)	(15.64)	(14.95)	(12.90)	(16.09)	(12.68)	(9.73)	(14.50)

Notes: sample covers 1970-2002. Country- and time-specific effects are included in all regressions. t-statistics are shown in parentheses.

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[15] Another more practical reason for not including more variables in the baseline model is that this would reduce the number of observations considerably. Including the budget balance, in particular, reduces the number of observations in the baseline model by almost half. Including corruption reduces the sample period by more than 10 years.

3. Main hypothesis

There is ample evidence that G7 countries, and in particular the US, bribe governments to vote in line in the General Assembly. As outlined above, G7 countries are in control of IMF and Bank decisions, and can thereby use the international organizations to influence recipient countries' behavior in line with their interests.[16] The benefits of bribing governments indirectly via IMF and World Bank instead of directly with own aid programs might be substantial. It has been argued that national governments delegate unpleasant tasks they consider necessary to gain support of interest groups to international organizations ("dirty work"). This might allow governments to escape the nationalist resentment those actions would create when imposing more direct pressure (Vaubel 1986, 1991, 1996). According to Eldar (2004), votes are almost always traded behind the scenes, because most countries prefer to conceal vote trading arrangements to escape public and political condemnation. As Harrigan, Wang and El-Said (2006) argue, the IMF can impose punishments or rewards much wider in scope than any single donor could. Fund and Bank loans are usually much more valuable to potential borrowers than they are costly for the US (Eldar 2004). In fact, bilateral donors frequently attach their money to IMF programs, substantially increasing the Fund's leverage. Western countries might thus try to influence Fund and Bank to reinforce the already existing bilateral pressure.[17] We hypothesize:

> **Main Hypothesis: IMF and World Bank programs or loans, or changes in loans, increase the probability that a recipient country votes in line with the institutions' major shareholders, the G7 countries.**

To capture the impact of IMF and World Bank, we employ the number of programs starting in a certain year. We distinguish the Structural Adjustment Facility (SAF) and Poverty Reduction and Growth Facility (PRGF), which are highly concessional, and the non-concessional Extended Fund Facility (EFF) and Stand-By Arrangement (SBA). Net

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[16] Possible channels for US influence on the IMF have been discussed in detail in Broz and Hawes (2006). They argue that US congress is influenced by lobbies with stakes in IMF policy. Congress, in turn, commands the allegiance of US officials at the IMF. As the results of their empirical analysis show, a congressperson is more likely to vote in favour of an IMF quota increase, the higher have been campaign contributions from big US banks and the greater the proportion of winners from the IMF's pro-globalization mandate in its district. See also Bird and Rowlands (2001).

[17] For example, the US promised China supporting its loan request from the World Bank in exchange for support of a convention regarding deployment of armed forces in Iraq in the Security Council in 1991 (Eldar 2004).

concessional and non-concessional IMF loans agreed and those actually disbursed are also included. Regarding the World Bank, we employ technical, adjustment, and all other projects starting in a certain year, and new net disbursements of concessional loans (International Development Agency, IDA) and non-concessional loans (International Bank for Reconstruction and Development, IBRD) in percent of GDP.

While we have no a priori hypothesis as to which loans and programs are more likely to be used to bribe recipients, there is good reason to separate these facilities in the empirical analysis instead of employing one overall variable for IMF and, respectively, World Bank involvement. Concessional loans are given to countries with low per capita income only, and frequently on a rather continuous basis.[18] Non-concessional programs are usually negotiated with more developed countries, which might be better able to resist G7 pressure. In addition, those countries might put greater value on their stance in the General Assembly than least developed countries do. However, particularly IMF non-concessional loans are frequently negotiated quickly at times of severe economic crises, so the recipient might well be forced to accept the political strings attached.

3. First results for our main hypothesis

Aid and loans might not be given to "bribe" governments, but to reward previous voting compliance. We thus have to deal with the time structure of our right-hand-side variables. As a first step we run correlation analysis allowing for a one year lead or lag in our loan and aid variables. Both the dependent and the explanatory variables are first corrected for country- and time-specific effects and for the information already contained in the baseline variables. To account for the time structure we choose that lead or lag where the correlation with the voting coincidence variable is highest.

Table 7 reports the optimal lead/lag structure for our World Bank and IMF-related variables. Most relationships are of a contemporaneous nature. However, of those that are not, there are almost as many relationships pointing to a reward structure as there are towards bribing votes upfront. In other words, IMF and World Bank involvement might be endogenous to General Assembly voting. In the empirical analysis we will work with the time

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[18] Currently, a 2003 per capita GNI of $895 marks the threshold for concessional IMF and World Bank lending. While typical PRGF programs are concluded for 3 years, in practice many countries consecutively negotiate new programs for extended periods of time.

structures derived here. The issue of potential endogeneity of the IMF and World Bank variables will be further addressed in Section 8.

Table 7: Lag-/ Lead-Structure of Loan-related variables

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
IMF conc. flows	-1	1	1	-1	-1	-1	-1	-1
IMF non-conc. flows	1	0	0	1	1	1	0	0
IMF conc. flows agreed	1	1	0	1	1	1	1	1
IMF non-conc. flows agreed	-1	-1	0	0	-1	-1	-1	0
IMF SAF & PRGF	-1	1	1	1	0	0	0	1
IMF EFF & SBA	-1	-1	0	0	-1	-1	-1	0
IDA flows	-1	0	0	0	-1	-1	-1	-1
IBRD flows	1	1	1	1	1	1	0	1
WB techn. projects	0	0	0	0	0	0	0	0
WB adjust. projects	0	0	0	0	0	-1	0	0
WB other projects	0	0	0	1	0	1	-1	0

Notes: corrected for country- and time-specific effects and baseline variables.

Table 8 reports the results of our panel regressions when testing our main hypothesis for the combined G7 voting coincidence variable. Each column concerns one of the variables which might represent these hypotheses. All variables are added individually (with the time structure determined above), where national capability and democracy are included in all regressions in addition to the fixed time and country effects.

Concentrating on our main hypothesis, voting coincidence is more likely when non-concessional IMF flows are higher, higher non-concessional loans are agreed on, or more non-concessional IMF (EFF and SBA) programs are in effect. The same is true when more World Bank (technical, adjustment, and other) programs and projects are in place. As expected, and in line with the program and project variables, new net IBRD loans increase the probability that the borrower votes with the average G7 country. The results also show that concessional IMF and Bank loans have no significant impact on voting coincidence. As one explanation, the G7 countries might not regard the recipients' votes as being important in the General Assembly. For these poor countries, other considerations might be more important in determining loan and program allocation. For example, France might want to influence Fund and Bank lending in favor of its former colonies, without asking the recipients for voting compliance in the Assembly. Alternatively, economic considerations might dominate the relations with these poor countries.

Recalling the lag structure of Table 7, our results imply that IMF non-concessional loan agreements become higher to reward countries for their voting behavior in the UN General Assembly. The results imply that one year after demonstrating alliance with the G7 countries in the Assembly, the probability of receiving greater non-concessional loan arrangements is significantly higher. The opposite seems to hold for IMF flows actually disbursed and new non-concessional World Bank loans (IBRD flows), where loans seem to be disbursed to bribe countries (rather than reward them).

The baseline variables stay significant at the one percent level in all specifications. Again, the estimated coefficients are very robust.

Table 8: Testing the main hypothesis for the G7 as a whole

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
p-value Hausman test	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. R^2	0.89	0.89	0.89	0.89	0.86	0.86	0.89	0.89	0.86	0.86	0.86
#Obs	4225	4064	4076	4244	3765	3765	4252	4077	3764	3765	3764
#Cnt	177	176	176	177	154	154	177	176	154	154	154
Period	73-01	73-00	73-00	73-01	73-01	73-01	73-01	73-00	73-01	73-01	73-01
Baseline variables											
National capability	-7.777	-8.048	-8.006	-7.721	-7.366	-7.294	-7.721	-7.837	-7.379	-7.251	-7.231
	(-10.76)	(-10.60)	(-10.57)	(-10.73)	(-10.29)	(-10.21)	(-10.73)	(-10.42)	(-10.31)	(-10.13)	(-10.07)
Democracy [t-1]	0.012	0.011	0.011	0.012	0.012	0.011	0.012	0.011	0.011	0.011	0.011
	(14.35)	(13.57)	(13.54)	(14.41)	(14.02)	(14.00)	(14.50)	(13.40)	(13.94)	(13.90)	(13.91)
Main hypothesis: IMF & World Bank support											
IMF conc. flows [t-1]	0.094										
	(0.92)										
IMF non-conc. flows [t+1]		0.162									
		(1.95)									
IMF conc. flows agreed [t+1]			-0.011								
			(-0.28)								
IMF non-conc. flows agreed [t-1]				0.184							
				(3.04)							
IMF SAF & PRGF [t-1]					0.001						
					(0.28)						
IMF EFF & SBA [t-1]						0.010					
						(4.23)					
IDA flows [t-1]							-0.110				
							(-1.39)				
IBRD flows [t+1]								0.861			
								(4.75)			
WB techn. projects									0.004		
									(2.04)		
WB adjust. projects										0.005	
										(3.22)	
WB other projects											(0.00)
											(2.28)

Notes: Country- and time-specific effects are included in all regressions. t-statistics are shown in parentheses.

Table 9: Testing the main hypothesis for each G7-members

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
Main hypothesis: IMF & World Bank support								
IMF conc. flows	0.173	0.085	0.098	0.098	0.157	0.094	0.045	0.094
	(1.71)	(0.90)	(0.97)	(0.79)	(1.57)	(0.97)	(0.36)	(0.92)
IMF non-conc. flows	0.219	0.122	0.137	0.222	0.214	0.233	0.097	0.162
	(2.68)	(1.58)	(1.66)	(2.17)	(2.63)	(2.99)	(0.97)	(1.95)
IMF conc. flows agreed	-0.022	-0.021	-0.006	-0.052	-0.040	-0.055	0.011	-0.011
	(-0.57)	(-0.56)	(-0.14)	(-1.06)	(-1.03)	(-1.46)	(0.23)	(-0.28)
IMF non-conc. flows agreed	0.216	0.202	0.199	0.214	0.232	0.123	0.133	0.184
	(3.60)	(3.62)	(3.31)	(2.89)	(3.90)	(2.14)	(1.80)	(3.04)
IMF SAF & PRGF	0.002	0.001	0.000	-0.001	0.001	0.001	0.003	0.001
	(0.56)	(0.25)	(0.11)	(-0.19)	(0.13)	(0.18)	(0.57)	(0.28)
IMF EFF & SBA	0.013	0.010	0.011	0.012	0.012	0.008	0.006	0.010
	(5.09)	(4.67)	(4.46)	(4.18)	(5.16)	(3.54)	(1.79)	(4.23)
IDA flows	-0.254	-0.208	-0.124	-0.331	-0.296	-0.207	0.318	-0.110
	(-3.21)	(-2.82)	(-1.57)	(-3.39)	(-3.77)	(-2.74)	(3.25)	(-1.39)
IBRD flows	0.778	0.748	0.791	1.006	0.836	0.792	0.767	0.861
	(4.36)	(4.45)	(4.38)	(4.51)	(4.69)	(4.65)	(3.49)	(4.75)
WB techn. projects	0.005	0.005	0.005	0.005	0.005	0.003	0.003	0.004
	(2.53)	(2.63)	(2.19)	(2.29)	(2.62)	(1.55)	(1.05)	(2.04)
WB adjust. projects	0.005	0.005	0.005	0.004	0.005	0.002	0.003	0.005
	(2.84)	(3.61)	(3.31)	(2.26)	(3.07)	(1.46)	(1.39)	(3.22)
WB other projects	0.003	0.001	0.001	0.002	0.002	0.002	0.001	0.001
	(4.80)	(2.13)	(2.29)	(2.75)	(3.51)	(4.48)	(1.41)	(2.28)

Notes: sample covers 1970-2002. Each cell represents one regression in which also country- and time-specific effects and baseline variables are included. t-statistics are shown in parentheses.

To see how sensitive our results are with respect to selecting the aggregate G7 as our potential donor country, Table 9 summarizes the outcomes of similar analyses for each of the members separately. Each column summarizes a similar table as Table 8, i.e. each cell is based upon one regression. For ease of comparison, the results for the aggregate G7 – as presented in Table 8 – are listed in the last column.

The results as described above do most of the time also hold for each G7 member. However, there are some interesting differences. These differences mainly occur when focusing on the US. Here the IMF variables, and in particular IMF non-concessional flows, are much less important. Also, World Bank projects are overall less significant for the US. The impact of IDA flows on voting coincidence is negative for all G7 countries except the US and UK, whereas voting with the US is significantly more likely with more money received from the IDA. While the negative impact of IDA flows on voting coincidence is surprising, the robustness analysis presented in the next section shows that these results depend on the specific specification chosen, and thus on the correlation among the IMF and World Bank

variables. The US seems to be primarily using the World Bank whereas other G7 countries employ Bank and Fund alike. As a possible explanation, the World Bank President has always been American, while the Fund Managing Director has been a European. This might give the US more leverage over the Bank as compared to the Fund.

4. Robustness to model specification

To examine both the sensitivity of our baseline model and the coefficients of our explanatory variables of interest to changes in model specification we apply (variants) of the so-called Extreme Bounds Analysis (EBA) as suggested by Leamer (1983) and Levine and Renelt (1992). These EBA methods will be described below. As the robustness analysis includes the donor-specific variables that are important determinants of voting behavior according to Table 5, the potential problem of neglecting donor-specific variables in our baseline model is alleviated.

4.1 Extreme bounds analysis

EBA has been widely used in the economic growth literature.[19] The central difficulty in this research – which also applies to the research topic of the present paper – is that several different models may all seem reasonable given the data, but yield different conclusions about the parameters of interest. Indeed, a glance at the studies summarized in Table 1 illustrates this point. The results of these studies differ substantially, while most authors do not offer a careful analysis to examine how sensitive their conclusions are with respect to model specification. As pointed out by Temple (2000), presenting only the results of the model preferred by the author can be misleading. The EBA can be exemplified as follows. Equations of the following general form are estimated:

$$Y = \alpha M + \beta F + \gamma Z + u, \qquad (1)$$

where Y is the dependent variable; M is a vector of 'standard' explanatory variables; F is the variable of interest; Z is a vector of up to three possible additional explanatory variables, which according to the literature may be related to the dependent variable; and u is an error term. The extreme bounds test for variable F states that if the lower extreme bound for β – i.e. the lowest value for β minus two standard deviations – is negative, while the upper extreme bound for β – i.e. the highest value for β plus two standard deviations – is positive, the variable F is not robustly related to Y.

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[19] See, e.g. Levine and Renelt (1992), Sala-i-Martin (1997a, 1997b), Temple (1998, 2000), Fernández, Ley and Steel (2001), Sala-i-Martin, Doppelhofer and Miller (2004) and Sturm and de Haan (2005).

As argued by Temple (2000), it is rare in empirical research that we can say with certainty that one model dominates all other possibilities in all dimensions. In these circumstances, it makes sense to provide information about how sensitive the findings are to alternative modeling choices. The EBA provides a relatively simple means of doing exactly this. Still, the EBA has been criticized in the literature. Sala-i-Martin (1997a, 1997b) argues that the test applied in the Extreme Bounds Analysis poses too rigid a threshold in most cases. If the distribution of β has some positive and some negative support, then one is bound to find at least one regression for which the estimated coefficient changes sign if enough regressions are run. We will therefore not only report the extreme bounds, but also the percentage of the regressions in which the coefficient of the variable F is significantly different from zero at the 5 percent level. Moreover, instead of analyzing just the extreme bounds of the estimates of the coefficient of a particular variable, we follow Sala-i-Martin's (1997a, 1997b) suggestion to analyze the entire distribution. Following this suggestion, we not only report the unweighted parameter estimate of β and its standard deviation but also the unweighted cumulative distribution function (CDF(0)), i.e. the fraction of the cumulative distribution function lying on one side of zero. We will base our conclusions on the Sala-i-Martin variant of the EBA.[20]

4.1 EBA Results

Table 10 presents the results of the Extreme Bounds Analysis for the individual G7 countries and the weighted average.[21] Besides the fixed country and time effects only national capability and the index for democracy are included in the base model (M). As explained above, the variables used to test our hypotheses have then been added to the F-vector one at a time. Using the set of 27 remaining variables (which enter the Z-vector) the above-described EBA approach is employed to get a clearer picture of the robustness of the F-variable.

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[20] Sala-i-Martin (1997a) proposes using the (integrated) likelihood to construct a weighted CDF(0). However, the varying number of observations in the regressions due to missing observations in some of the variables poses a problem. Sturm and de Haan (2001) show that as a result this goodness of fit measure may not be a good indicator of the probability that a model is the true model and the weights constructed in this way are not equivariant for linear transformations in the dependent variable. Hence, changing scales will result in rather different outcomes and conclusions. We therefore restrict our attention to the unweighted version. Furthermore, for technical reasons – in particular our unbalanced panel setup – we are unable to use the extension of this approach called Bayesian Averaging of Classical Estimates (BACE) as introduced by Sala-i-Martin, Doppelhofer and Miller (2004).

[21] See Sturm, Berger and de Haan (2005) for a recent analysis regarding the determinants of IMF loans.

Table 10: Significance in the EBA analysis

	Percentage regressions significant at 5 % level								CDF(0)							
	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7
Baseline variables																
National capability	74	92	89	70	80	92	93	79	0.93	0.99	0.99	0.90	0.96	1.00	0.99	0.97
Democracy [-1]	98	90	89	100	99	97	61	81	1.00	0.98	0.98	1.00	1.00	1.00	0.94	0.96
Main hypothesis: IMF & World Bank support																
IMF conc. flows	38	5	1	18	32	21	2	4	0.91	0.75	0.73	0.82	0.91	0.90	0.73	0.74
IMF non-conc. flows	21	24	20	6	15	29	12	20	0.81	0.82	0.81	0.80	0.83	0.84	0.80	0.79
IMF conc. flows agreed	0	0	1	0	0	0	1	0	0.62	0.62	0.67	0.67	0.66	0.69	0.66	0.60
IMF non-conc. flows agreed	37	41	53	43	52	16	4	51	0.89	0.92	0.91	0.87	0.93	0.81	0.72	0.92
IMF SAF & PRGF	11	4	4	0	2	5	9	3	0.82	0.85	0.86	0.66	0.85	0.83	0.81	0.84
IMF EFF & SBA	62	51	54	45	75	48	1	55	0.96	0.93	0.93	0.89	0.97	0.93	0.76	0.93
IDA flows	17	11	4	18	13	12	20	7	0.80	0.78	0.71	0.84	0.77	0.81	0.79	0.74
IBRD flows	25	33	35	27	26	34	91	41	0.82	0.90	0.92	0.87	0.86	0.89	0.99	0.93
WB techn. projects	15	60	23	8	37	2	1	11	0.86	0.97	0.89	0.91	0.94	0.74	0.80	0.85
WB adjust. projects	96	98	97	75	100	51	11	81	0.99	1.00	1.00	0.98	1.00	0.96	0.89	0.98
WB other projects	28	17	15	31	22	42	13	15	0.81	0.77	0.77	0.83	0.80	0.90	0.91	0.75

Notes: sample covers 1973-2001. Country- and time-specific effects and baseline variables are included in all regressions. Each cell in this table is based upon 4525 regressions in case of the baseline variables, or 435 regressions for the variables testing our main hypotheses.

The left-hand side of Table 10 shows how often the particular variable testing one of our main hypothesis has been significant at the 5 percent level of significance in the close to 3'700 regressions we ran for each of them. The right-hand side of the table reports the percentage of the unweighted cumulative distribution function lying on one side of zero. Hence, Table 10 gives an overview of the statistical significance of each variable.

Table 11, on the other hand, is useful to explore the impact of each variable on voting behavior. It reports in the first column the average value of each variable and its standard error as used in the baseline model. The next seven columns contain the average estimated coefficient (and its standard deviation). The final column reports the impact of a one standard error shock for G7 voting coincidence.

As can be seen from the tables (and due to the high correlation among the dependent variables), the pattern of significant variables is fairly similar among the seven countries and their weighted average. Again the only significant differences appear to be between the US and the remaining G7 countries. Generally, voting with the G7 is robustly more likely for more democratic countries and with lower levels of national capability. The results are more or less in line with the individual panel regressions reported above. Most notably, the results obtained for IMF and World Bank are robustly related to voting, with four variables showing a CDF(0) greater than 0.90 in the EBA referring to the G7 variable, and similar results for the individual country regressions (excluding the US). The coefficients of these variables are also in line with those presented above and have the highest overall impact on voting coincidence of all variables used to test our main hypothesis. According to the results, a one standard

deviation increase in IMF non-concessional loans agreed increases voting coincidence by 0.19 percent. The respective increase is 0.19 percent for Extended Fund Facility and Stand-By programs, 0.17 percent for IBRD flows, and 0.23 percent for World Bank adjustment projects.

Table 11: Impact according to EBA analysis

	Sample	Average beta (standard deviation)								Impact
	Avg.	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7	G7
Baseline variables										
National capability	0.004	-3.417	-4.273	-4.381	-3.096	-3.764	-3.800	-5.629	-4.461	-5.16%
	(0.012)	(0.806)	(0.760)	(0.811)	(1.013)	(0.811)	(0.769)	(1.107)	(0.839)	
Democracy [-1]	3.862	0.008	0.007	0.006	0.008	0.008	0.006	0.003	0.006	1.20%
	(2.011)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Main hypothesis: IMF & World Bank support										
IMF conc. flows	0.001	0.172	0.095	0.089	0.135	0.164	0.163	-0.097	0.017	0.01%
	(0.007)	(0.110)	(0.115)	(0.118)	(0.151)	(0.112)	(0.116)	(0.143)	(0.123)	
IMF non-conc. flows	0.001	0.091	0.079	0.083	0.101	0.106	0.107	0.102	0.077	0.07%
	(0.009)	(0.088)	(0.084)	(0.090)	(0.115)	(0.091)	(0.088)	(0.112)	(0.095)	
IMF conc. flows agreed	0.002	0.006	-0.012	0.019	-0.020	-0.008	-0.014	-0.022	-0.005	-0.01%
	(0.019)	(0.041)	(0.044)	(0.044)	(0.057)	(0.042)	(0.041)	(0.053)	(0.045)	
IMF non-conc. flows agreed	0.003	0.103	0.111	0.135	0.148	0.128	0.057	0.025	0.147	0.19%
	(0.013)	(0.061)	(0.059)	(0.071)	(0.090)	(0.063)	(0.059)	(0.079)	(0.076)	
IMF SAF & PRGF	0.044	0.004	0.004	0.005	0.002	0.005	0.004	0.005	0.005	0.09%
	(0.204)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.005)	(0.004)	
IMF EFF & SBA	0.126	0.006	0.005	0.006	0.006	0.007	0.005	0.002	0.006	0.19%
	(0.331)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	
IDA flows	0.005	0.026	-0.060	-0.009	-0.162	-0.029	0.040	0.123	-0.008	-0.01%
	(0.013)	(0.103)	(0.096)	(0.104)	(0.128)	(0.104)	(0.098)	(0.132)	(0.108)	
IBRD flows	0.001	0.236	0.288	0.313	0.338	0.273	0.290	0.663	0.378	0.17%
	(0.004)	(0.180)	(0.172)	(0.182)	(0.228)	(0.184)	(0.172)	(0.229)	(0.190)	
WB techn. projects	0.134	0.003	0.004	0.003	0.004	0.004	0.001	0.003	0.003	0.10%
	(0.392)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	
WB adjust. projects	0.192	0.004	0.005	0.005	0.004	0.005	0.003	0.003	0.004	0.23%
	(0.537)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)	
WB other projects	1.444	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.08%
	(2.237)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	

	Sample average (standard error)								
Voting coincidence	0.558	0.468	0.457	0.526	0.543	0.582	0.295		0.458
	(0.122)	(0.129)	(0.139)	(0.151)	(0.129)	(0.107)	(0.135)		(0.138)

Notes: sample covers 1970-2002. Country- and time-specific effects and baseline variables are included in all regressions. The first column reports the sample average (and standard error) for each variable. The final column shows the estimated average impact of a shock of one standard error in each variable on G7 voting coincidence in percentage points.

All this makes us confident that all G7 countries – with the exception of the US – can be well-described by a model including, besides our baseline variables, IMF non-concessional flows and programs and World Bank adjustment projects. For the US, the results point to including concessional and non-concessional flows besides the baseline variables. Table 12 reports the results of an extended model, containing these variables in addition to the baseline. The results show that World Bank adjustment projects are no robust determinant of voting in line with the US.

Table 12: Testing the extended models

	CAN	FRA	GBR	DEU	ITA	JPN	USA	G7	USA
p-value Hausman test	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adj. R^2	0.82	0.86	0.86	0.86	0.84	0.82	0.79	0.86	0.82
#Obs	3578	3578	3578	3578	3578	3578	3578	3578	4245
#Cnt	154	154	154	154	154	154	154	154	177
Period	73-00	73-00	73-00	73-00	73-00	73-00	73-00	73-00	73-01
Baseline variables									
National capability	-6.753	-6.928	-7.412	-6.484	-6.925	-6.499	-7.896	-7.378	-7.566
	(-9.06)	(-10.16)	(-9.92)	(-7.66)	(-9.37)	(-9.24)	(-8.40)	(-9.86)	(-8.61)
Democracy [-1]	0.012	0.010	0.011	0.012	0.012	0.009	0.009	0.011	0.010
	(14.21)	(13.76)	(12.91)	(12.74)	(14.02)	(11.49)	(8.44)	(12.62)	(9.60)
Main hypothesis: IMF & World Bank support									
IMF EFF & SBA [-1]	0.011	0.008	0.009	0.009	0.010	0.007	0.005	0.008	
	(4.28)	(3.67)	(3.54)	(3.30)	(4.17)	(2.89)	(1.51)	(3.29)	
IBRD flows [1] / [0]	0.701	0.636	0.717	0.770	0.720	0.620	0.783	0.772	0.921
	(3.94)	(3.91)	(4.02)	(3.81)	(4.09)	(3.69)	(3.49)	(4.33)	(4.21)
WB adjust. projects	0.004	0.005	0.005	0.004	0.004	0.002	0.003	0.005	
	(2.46)	(3.34)	(3.10)	(1.97)	(2.72)	(1.17)	(1.53)	(3.03)	
IDA flows [-1]									0.351
									(3.58)

Notes: sample covers 1970-2002. Country- and time-specific effects are included in all regressions. t-statistics are shown in parentheses.

As a next step we further elaborate on this extended model. Due to space restraints, we will restrict ourselves to the last two columns of Table 12, i.e. the US and the average G7 – as representing the other G7 member countries.

5. Further robustness checks to the extended model

As described above, the definition of the voting coincidence variable varied in the previous literature. We therefore test the robustness of our results to changes in this definition. We also test whether a moving average version of voting coincidence, the exclusion of non-key votes, the exclusion of almost unanimous votes or the exclusion of Israeli topics affects our results.

There has also been some discussion about whether the end of the Cold War introduced a structural shift in countries' positions in the Assembly (see, e.g. Voeten 2000). Arguably, the determinants of voting in the General Assembly need not be constant over the 30 years under study. The IMF's support for countries with strong ties to the US, but lacking effective reform programs, was particularly pronounced in the Cold War era (Krueger 1998, Bordo and James 2000). Regarding the strategic importance of multilateral loans, this shift might be important. During the Cold War, pressure by both the West and the East on non-

aligned countries was rather open and direct. Comparably obvious direct pressure might not be tolerated by the international community today. In addition, after the end of the Cold War countries are less constrained by alignments and might thus be more likely to vote according to their preferences when not being bribed. Particularly, economically weak countries no longer need protection by "their" bloc and now need to be bribed to achieve alignment. To capture this break, we therefore replicated the models allowing the coefficients to differ for the periods before 1991 and after 1990.[22]

Finally, we also replicate the analysis omitting those countries that never received IMF or, respectively, World Bank loans.

Table 13: Sensitivity of extended G7 model

		Thacker / Full sample	Barro-Lee	Kegley-Hoock	Mov. Avg.	US keyvotes	No unanimous	No Israeli topics	Up until 1990 period	Post 1991 period	Ever been IMF client	Ever been World Bank client
G7	Adj. R²	0.86	0.65	0.64	0.87	0.71	0.80	0.83	0.86		0.86	0.86
	#Obs	3578	3578	3578	3395	2460	3578	3578	3578		2882	3105
	#Cnt	154	154	154	152	154	154	154	154		120	131
	Period	73-00	73-00	73-00	73-00	83-00	73-00	73-00	73-00		73-00	73-00
	IMF EFF & SBA [-1]	0.008	0.013	0.011	0.009	0.016	0.009	0.008	0.003	0.002	0.008	0.008
		(3.29)	(2.66)	(2.63)	(4.28)	(2.48)	(3.52)	(2.78)	(0.96)	(3.17)	(3.05)	(3.06)
	IBRD flows [1]	0.772	0.932	0.496	0.694	0.429	0.914	0.856	0.403	1.535	0.746	0.753
		(4.33)	(2.72)	(1.63)	(4.67)	(0.91)	(4.74)	(4.22)	(1.84)	(3.66)	(4.06)	(4.19)
	WB adjust. projects	0.005	0.004	0.002	0.003	0.011	0.005	0.005	0.001	0.007	0.004	0.005
		(3.03)	(1.40)	(0.88)	(2.48)	(2.98)	(3.07)	(2.46)	(0.36)	(2.14)	(2.65)	(2.95)
USA	Adj. R²	0.82	0.81	0.78	0.88	0.75	0.81	0.84	0.82		0.75	0.76
	#Obs	4245	4245	4245	4042	2955	4245	4245	4245		2996	3229
	#Cnt	177	177	177	173	177	177	177	177		120	131
	Period	73-01	73-01	73-01	73-01	83-01	73-01	73-01	73-01		73-01	73-01
	IDA flows [-1]	0.351	-0.206	-0.318	0.241	0.470	0.265	0.166	0.307	0.070	0.395	0.395
		(3.58)	(-2.17)	(-3.69)	(3.04)	(2.46)	(2.52)	(1.68)	(2.09)	(0.42)	(3.81)	(3.86)
	IBRD flows [0]	0.921	0.380	0.470	0.939	1.029	1.129	0.935	0.646	0.619	0.963	0.943
		(4.21)	(1.80)	(2.45)	(5.48)	(2.29)	(4.82)	(4.23)	(2.17)	(1.27)	(4.09)	(4.14)

Notes: Baseline variables, country- and time-specific effects are included in all regressions. t-statistics are shown in parentheses.

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[22] Harrigan, Wang and El-Said (2006) argue that the post 9/11 concerns of Western countries might intensify their willingness of employing aid as a tool of foreign policy. As Harrigan et al. remark, the US explicitly states that the War on Terror and US security are important reasons for foreign aid. They cite President G.W. Bush speaking at the UN meeting in Monterrey that "we fight poverty because hope is an answer to terror." The 2001 terrorist attacks might thus have introduced another structural break. However, as we hardly have data for the post 9/11 period, we cannot test for this.

Table 13 presents the results. The first column replicates the extended model of Table 12 for the G7 and the USA. The remaining columns check the sensitivity of these results. As can be seen, using alternative dependent variables rarely changes the results for the average G7 variable. According to all definitions of the dependent variable, the number of non-concessional IMF programs increase voting coincidence, with coefficients at least at the five percent level. The impact of non-concessional World Bank money remains significant at the one percent level in most regressions. The exception are the regressions focusing on key votes only, where the coefficient is insignificant, and the Kegley-Hook specification, where the coefficient remains, however, marginally significant. Turning to adjustment programs financed by the World Bank the table shows that the result remains in four out of six regressions. Only changing the dependent variable according to the definition of Barro-Lee and Kegley-Hook changes the previous result. In summary, the main results are fairly robust as to how the dependent variable is defined and which votes are included.

Table 13 also tests whether the results differ for the periods before and after 1991. The regression thus interacts the IMF and World Bank variables with a dummy for the post-1991 period. Jointly, the IMF and World Bank variables and their respective interaction are significant at least at the five percent level in each regression. The results show that the impact of the Financial Institutions on voting coincidence has indeed changed over time. Regarding the weighted G7 variable, the impact of the Fund and Bank becomes much stronger after 1991. In the post-1991 period, all three coefficients show that there has been a significant increase in the impact of both Financial Institutions. The evidence thus supports the hypothesis that the role of politics in General Assembly voting became stronger with the end of the Cold War. Most likely, the role of indirect pressure became more important, as open pressure on other governments is no longer tolerated by voters in G7 countries. The table also shows that the exclusion of countries never receiving IMF or, respectively, World Bank loans does not change the previous results.

Turning to the sensitivity of the dependent variable for the extended US-model, the results are again extremely robust to our tests. However, in contrast to the results for the average G7 country, the impact of the World Bank on voting with the US does not change over time. The coefficients of IDA and IBRD flows are smaller in the period up until 1990 as compared to the full sample, but stay significant at the five percent level.

As another important issue, clearly, the analysis so far does neglect the potential endogeneity of IMF and World Bank involvement. To deal with this, we employ the GMM estimator as suggested by Arellano and Bond (1991). This estimator first-differences the

estimating equation and uses lags of the dependent variable from at least the previous two periods as well as lags of the exogenous variables as instruments. Since there are more instruments than right-hand side variables, the equations are over-identified and the instruments must be appropriately weighted. We present results from the Arellano-Bond one-step estimator, which uses the identity matrix as the weighting matrix. The two-step estimator weights the instruments asymptotically efficiently using the one-step estimates. However, in limited samples like the one used here, standard errors tend to be under-estimated by the two-step estimator (Arellano and Bond 1991: 291). In all estimations we treat the covariates as strictly exogenous. For the GMM estimator, we conduct a Sargan test on the validity of the instruments used. This amounts to a test for the exogeneity of the covariates. We also report results of the Arellano-Bond test of second order autocorrelation, which must be absent from the data in order for the estimator to be consistent.

Table 14: Testing the main hypothesis for G7 and US, GMM

	G7	USA
# Countries	152	173
# Observations	3394	4033
Period	1975-2000	1975-2000
Lagged dependent variable	0.488	0.404
	(23.48)	(20.59)
National capability	-3.697	-4.673
	(2.91)	(2.84)
Democracy (t-1)	-0.001	0.001
	(1.10)	(0.47)
IMF EFF & SBA (t-1)	-0.002	
	(0.77)	
IBRD flows [t+1]	0.731	
	(3.59)	
IBRD flows		0.455
		(1.72)
WB adj. Projects	0.003	
	(2.03)	
IDA flows [t-1]		0.286
		(2.43)

Notes: Time-specific effects are included in all regressions. t-statistics are shown in parentheses.

Table 14 shows the results for the G7 and the US. As can be seen, most results are not qualitatively affected by the potential endogeneity of the Financial Institution variables. The exception is IMF programs that do no longer significantly determine voting with the G7. The

quantitative impact of the World Bank variables decreases when those variables are instrumented – but still remain quantitatively important. The Sargan test accepts the instruments at the one percent level in both specifications. However, the Arellano-Bond test rejects the hypothesis of no second order autocorrelation. We therefore include a second lag of the dependent variable to the regressions (not reported in the table). As it turns out, both specification tests accept the instrument when the second lag is included, while the results are qualitatively unchanged.

To summarize, our results seem to be extremely robust to changes in the definition of the dependent variable, changes in the sample, and method of estimation.

6. Conclusion

The paper empirically analyzed the influence of the IMF and the World Bank on voting patterns in the UN General Assembly, and tested the robustness of previous studies' findings on the relationship between aid and voting. The main hypotheses tested relate to the impact of IMF and World Bank loans and programs. Our results, based on a huge number of different regression specifications and Extreme Bounds Analysis for a sample of up to 188 countries over the period 1970-2002, show that IMF and World Bank indeed influence voting in the UN General Assembly.

While the exact results depend on how voting coincidence is defined, and which control variables are included in the regressions, countries receiving adjustment programs and larger non-concessional loans from the World Bank vote more frequently in line with the average G7 country. The same is true for countries receiving non-concessional IMF programs. Regarding voting coincidence with the US, World Bank (concessional and non-concessional) loans have a significant impact, while IMF loans and programs have not. The US thus seems to be primarily using the World Bank whereas other G7 countries employ Bank and Fund alike. The World Bank President has always been American, while the Fund Managing Director has been a European. The US might thus have more leverage over the Bank as compared to the Fund. As another interesting result of our analysis, the role of politics in General Assembly voting became stronger with the end of the Cold War for the average G7 country, but not for the US.

The empirical results lend support to the recent proposals by the British central bank governor Mervyn King, suggesting to give greater independence to the IMF. With an independent Executive Board, the political influence of the major shareholders is likely to be substantially reduced. The influence of governments could also be reduced by transferring the

control of international organizations to the member countries' citizens, as recently discussed in Frey and Stutzer (2006a, 2006b) and Tullock (2006). According to Frey and Stutzer, a representative sample of trustees should be chosen among the citizenry of the member states. The trustees can launch initiatives, vote in referenda on issues related to the organizations and would be allowed to recall the institutions' executives. If governments use Fund and Bank to hide their political motives from their voters, clearly, direct citizen control could solve the issue.

Regarding bilateral grants from G7 countries, our results show that there is no robust link between grants and voting in the General Assembly. Given the robust and significant impact of IMF and World Bank on voting coincidence, this is surprising. As one explanation, more money might be needed than can be provided by any individual bilateral donor alone. We also hypothesized that G7 countries might prefer indirect pressure on other governments over direct pressure. This provides a second explanation for our results. Finally, aggregated grant flows might measure foreign influence too imprecisely. Specific categories of aid are better suited to buy political support from the recipient countries than others. Emergency relief, for example, is unlikely to be given for political reasons and might add too much noise to aggregate grant flows, hiding the potential impact on voting behavior. Analyzing the impact of disaggregated bilateral aid flows provides an avenue for future research.

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Appendix I: Data description and sources

Abbreviation	Description	Source
Voting coincidence		
Voting coincidence	Percentage of votes within a year which are inline with one of the G7 member countries.	Voeten (2004)
Main hypothesis: IMF & World Bank support		
IMF conc. flows	Net IMF financing (concessional) (as % of GDP)	IMF (2004)
IMF non-conc. flows	Net IMF financing (nonconcessional) (as % of GDP)	IMF (2004)
IMF conc. flows agreed	Agreed IMF financing (concessional) (as % of GDP)	IMF (2004)
IMF non-conc. flows agreed	Agreed IMF financing (nonconcesional) (as % of GDP)	IMF (2004)
IMF EFF & SBA	Start of a IMF EFF and/or SBA program in that year (non-cons.)	IMF annual reports, various years
IMF SAF & PRGF	Start of a IMF SAF and/or PRGF program in that year (cons.)	IMF annual reports, various years
IDA flows	IDA (NFL, as % of GDP)	World Bank (2004)
IBRD flows	Net financial flows, IBRD (as % of GDP)	World Bank (2004)
WB techn. projects	Number of World Bank technical loan programs starting that year (non-conc.)	www.worldbank.org
WB adjust. projects	Number of World Bank adjustment programs starting that year (non-cons.)	www.worldbank.org
WB other projects	Number of other World Bank programs starting that year (non-conc.)	www.worldbank.org
Hypothesis 1: cultural and political proximity		
Democracy	8 - (Political rights index + Civil liberties index) / 2	Freedom House (2004)
Change in democracy	Change in Democracy	Freedom House (2004)
Rule of law	Rule of law (law and order tradition) indicator	International Country Risk Guide Data
Corruption	Indicator for corruption in government	International Country Risk Guide Data
Bureaucratic quality	Indicator for bureaucratic quality	International Country Risk Guide Data
Political color inline	Chief Executive's Party in recipient and donor country both either Right or Left (L)	Beck et al. (2001)
Hypothesis 2: dependency on foreign support		
Aid	Aid (as % of GNI)	World Bank (2005)
Change in aid	Change in aid (as % of GNI)	World Bank (2005)
National capability	Composite Indicator of National Capability (v3.01)	Singer et al. (1972)
external debt	Total external debt corrected for the use of IMF credit, IBRD loans and IDA credits (as % of GDP)	World Bank (2005)
Change in external debt	Change in Total external debt corrected for the use of IMF credit, IBRD loans and IDA credits (as % of GDP)	World Bank (2005)
Ethnic tension	Presence of ethnic tensions	International Country Risk Guide Data
Inflation	Inflation, consumer prices (annual %) (=$\pi/1+\pi$)	World Bank (2005)
Current account balance	Current account balance (% of GDP)	World Bank (2005)
Budget balance	Overall budget balance, including grants (% of GDP)	World Bank (2005)
GDP per capita	Log of GDP per capita (constant 1995 US$)	World Bank (2005)
GDP growth	real GDP growth (annual %)	World Bank (2005)
Hypothesis 3: trade flows		
Exports from donor	Exports from donor country (as % recipient GDP)	OECD Stat. Compendium
Imports of donor	Imports of donor country (as % recipient GDP)	OECD Stat. Compendium
Hypothesis 4: bilateral aid		
Net grants from donor	Net Grants (as % recipient GDP)	OECD Stat. Compendium
Change net grants donor	Change in Net Grants (x1,000 and as % recipient GDP)	OECD Stat. Compendium

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