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# Determinants of Japan's ODA Allocation in Africa

## *Supplemental Materials*

These Appendices are provided to add more detailed information to the paper:
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**Takashi Nagatsuji**

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IFRI
27, RUE DE LA PROCESSION
75740 PARIS CEDEX 15 – FRANCE
Tel: +33 (0)1 40 61 60 00
Fax: +33 (0)1 40 61 60 60
Email: ifri@ifri.org

IFRI-BRUXELLES
RUE MARIE-THÉRÈSE, 21
1000 – BRUXELLES – BELGIQUE
Tel: +32 (0)2 238 51 10
Fax: +32 (0)2 238 51 15
Email: info.bruxelles@ifri.org

WEBSITE: *www.ifri.org*

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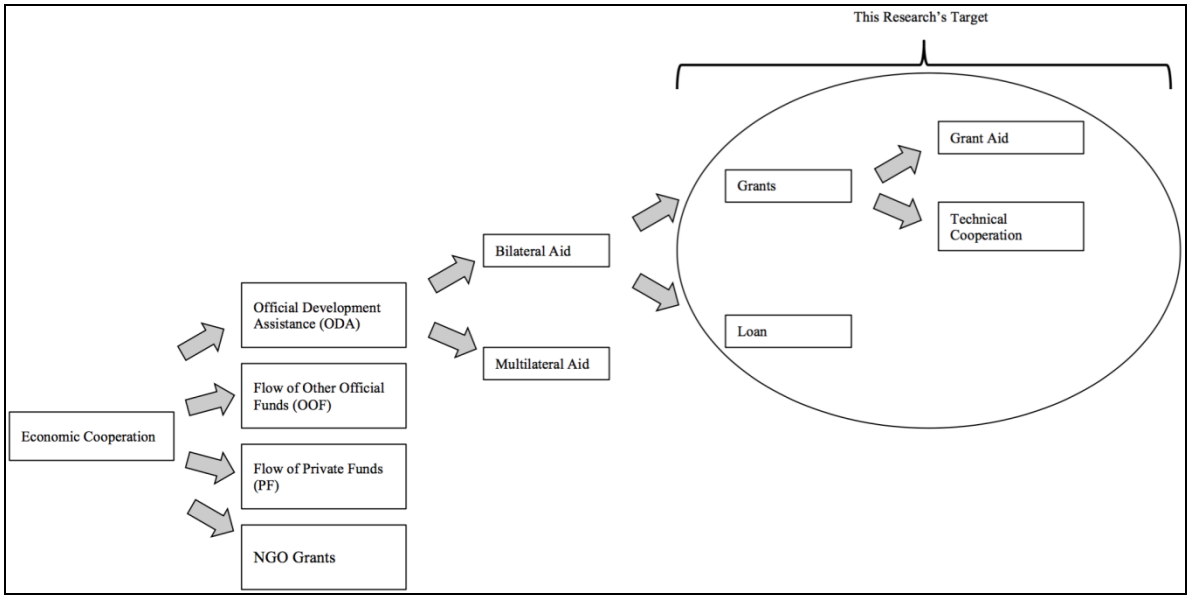
# Appendix 1.
# Japan's ODA and Previous Research

**Figure 1. Japan's ODA**




Source: Made from MOFA's website and JICA Annual Report 2014, p12 Table1: Economic Cooperation and ODA, http://www.mofa.go.jp/mofaj/gaiko/oda/about/oda/oda_keitai.html; http://www.jica.go.jp/english/publications/reports/annual/2014/ (accessed on December 10th, 2015)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## Table 1. Previous Research (Quantitative Research)

| | Dependent Variables | | Independent Variables (Data Source) | Statistical Models |
|---|---|---|---|---|
| | Dependent Variables (Data Source) | Time Period | | |
| Usui (1987) | **-Grants** | 1969-1971<br>1976-1978<br>1981-1983 | **-GDP Per Capita, Population, Inflation, Political Stability, Gross ODA, Imports from the Soviet Bloc, Arms Trade with the Soviet Bloc, Arms Trade with the U.S. , Energy Export, Trade, Past Aid Allocation, Bandwagon Effect** | Logit |
| Saito (1996) | **-Loan** (MOFA)<br>**-Grant** (MOFA)<br>**-Technical Cooperation** (JICA) | 1994 | **-Size of a country** (Population, ODA While Paper, Waga Koku no Seihu Kaihatsu Enjyo, WB Atlas)<br>**-Humanitarian Interest** (GDP Per Capita, ODA While Paper, Waga Koku no Seihu Kaihatsu Enjyo, WB Atlas)<br>**-Economic Interest** (Trade, Japan's Custom Statistics)<br>**-Historical and Geopolitical considerations** (East Asia Dummy, MOFA)<br>**-Democracy** (Freedom House) | Logit and OLS |
| Shimomura et al (1999) | **-Loan** (MOFA)<br>**-Grant** (MOFA)<br>**-Technical Cooperation** (MOFA) | 1980<br>1985<br>1990-1995 | **-Democracy** (Freedom House, Polity)<br>**-Size of Recipient Countries** (Population, World Bank, Social Indicators of Development on Diskett)<br>**-Humanitarian Considerations** (GDP Per capita, World Bank)<br>**-Economic Interests** (Amount of Trade, Waga Koku no Seihu Kaihatsu Enjyo, Gaikoku Boeki Gaiyou)<br>**-Historical and Geographical Considerations** (East Asia) | Probit and OLS |
| Cooray and Shahiduzzaman (2004) | **-ODA commitments** (OECD) | 1981-2001 | **-GDP Per capita** (World Development Indicators)<br>**-Population** (World Development Indicators)<br>**-Exports to Japan** (Direction of Trade Database)<br>**-Imports to Japan** (Direction of Trade Database)<br>**-Distance from Tokyo** (Meridian World Database)<br>**-Freedom of Democracy** (Freedom House)<br>**-Infant Mortality Rate** (World Development Indicators)<br>**-Ratio of the Sum of the Export and Import** (World Development Indicators) | Generalized Least Squares |
| Akiyama et al (2008) | **-Grant** (OECD/DAC, International Development Statistics)<br><br>**-Technical Cooperation** (OECD/DAC) | 1995, 2005 | **-GDP Per capita** (Penh World Table 6.2)<br>**-East Asia, Africa** (MOFA ODA White Paper)<br>**-Trade** (UN Comtrade)<br>**-DAC donors**<br>**-UN Voting** (Sweeneyh and Keshk 2005)<br>**-Freedom House**<br>**-WB CPIA** (World Bank)<br>**-Population** (World Development Indicator) | Tobit model |


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# Appendix 2.
# Japan-U.S. Relations during the Revised ODA Charter Period

The senior-level U.S.-Japan Development Dialogue featured Japan-U.S. partnership at the political level during the revised ODA Charter period. However, Japan and the U.S. had been deepening the partnership at the sector level before the Development Dialogue started in 2014. For example, in 2009 the USAID-Japan Partnership for Global Health Action Plan, 2009-2010, was set (MOFA 2009).[1] One of the aims of this partnership was to tackle African health issues together (Ibid). In 2012, JICA, USAID, and Ajinomoto signed a Memorandum of Understanding on Weaning Child Nutrition Improvement in Ghana (JICA 2012). It was the first time JICA and USAID worked with the private sector for nutritional improvement (Ibid).

1. The United States-Japan Partnership for Global Health was launched in 2002 (MOFA 2009).


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# Appendix 3.
# Japan-France Relations during the Revised ODA Charter Period

President of France François Hollande visited Japan in 2013, releasing a joint statement with Japanese Prime Minister Abe that reaffirmed the partnership between JICA and AFD and also mentioned the collaborative work on rice production in Senegal (MOFA 2013). In the following year, Prime Minister Abe visited France. Japan-France cooperation in Mali and Benin were included in a join press release with the President of France (MOFA 2014). French Prime Minister Manuel Valls visited Japan in 2015 and issued with the Japanese Prime Minister a France-Japan Plan for sustainable development, health, and security in Africa and the Annex to the plan (MOFA 2015a). It is worth noting that the France-Japan Plan mentioned the promotion of business partnerships between French and Japanese companies (MOFA 2015b). The Annex covers collaborative works in various countries such as Cote d'Ivoire, Guinea, Senegal, Chad, Nigeria, Mali, Niger, Burkina Faso and Mauritania (MOFA 2015c).


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# Appendix 4. Targeted Countries in the Statistical Analysis

This paper targets countries categorized in Africa by the OECD DAC dataset. It covers both “North of Sahara” and “South of Sahara”. However, this paper does not include Mayotte and Saint Helena due to missing values in other data resources. The below 54 countries are used in the statistical analysis in the paper.

1.Algeria,
2.Egypt,
3.Libya,
4.Morocco,
5.Tunisia,
6.Angola,
7.Benin,
8.Botswana,
9.Burkina Faso,
10.Burundi,
11.Cabo Verde,
12.Cameroon,
13.Central African Republic,
14.Chad,
15.Comoros,
16.Congo (Brazzaville),
17.Côte d'Ivoire,
18.Democratic Republic of the Congo (Kinshasa),
19.Djibouti,
20.Equatorial Guinea,
21.Eritrea,
22.Ethiopia,
23.Gabon,
24.Gambia,
25.Ghana,
26.Guinea,
27.Guinea-Bissau,
28.Kenya,
29.Lesotho,
30.Liberia,
31.Madagascar,
32.Malawi,
33.Mali,
34.Mauritania,
35.Mauritius,
36.Mozambique,
37.Namibia,
38.Niger,
39.Nigeria,
40.Rwanda,
41.Sao Tome and Principe,
42.Senegal,
43.Seychelles,
44.Sierra Leone,
45.Somalia,
46.South Africa,
47.South Sudan,
48.Sudan,
49.Swaziland,
50.Tanzania,
51.Togo,
52.Uganda,
53.Zambia,
54.Zimbabwe


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# Appendix 5.
# Data Sources and Coding Rules

**Table 5.1 Data Sources and Coding Rules (Dependent Variables)**

| | Variables | Data | Data Source and Coding Rules |
|---|---|---|---|
| **ODA** | **ODA Total, Gross disbursements** | Memo: ODA Total, Gross disbursements<br><br>Please see the following URL for the complete definition.<br>http://www.oecd.org/dac/stats/dac-glossary.htm#TC | OECD, Aid (ODA) disbursements to countries and regions [DAC2a]<br>Donor: Japan, Amount type: Constant Prices, Unit: US Dollars, Millions<br><br>http://stats.oecd.org/Index.aspx?ThemeTreeId=3# |
| | **Grants, Total** | Grants, Total<br><br>OECD defines Grants as transfers made in cash, goods or services for which no repayment is required.<br><br>Please see the following URL.<br>http://www.oecd.org/dac/stats/dac-glossary.htm#TC | OECD, Aid (ODA) disbursements to countries and regions [DAC2a]<br>Donor: Japan, Amount type: Constant Prices, Unit: US Dollars, Millions<br><br>http://stats.oecd.org/Index.aspx?ThemeTreeId=3# |
| | **Total Commitments** | Total Commitments<br><br>OECD defines Commitment as an obligation expressed in writing and backed by the necessary funds, undertaken by an official donor to provide assistance to a recipient country.<br><br>Please see the following URL.<br>http://www.oecd.org/dac/stats/dac-glossary.htm#Commitment | OECD, Aid (ODA) commitments to countries and regions [DAC3a]<br>Donor: Japan, Amount type: Constant Prices, Unit: US Dollars, Millions<br><br>http://stats.oecd.org/Index.aspx?ThemeTreeId=3# |


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**Table 5.2 Data Sources and Coding Rules (Independent Variables)**

| | Variables | Data | Data Source and Coding Rules |
|---|---|---|---|
| **Official Motives**<br><br>**(Recipient Needs)** | **Poverty Reduction** | GDP Per Capita, US Dollars | Banks, Arthur S., Wilson, Kenneth A. 2014. Cross-National Time-Series Data Archive. Databanks International. Jerusalem, Israel. |
| | **Humanitarian Needs** | Death rate, crude (per 1,000 people)<br><br>World Bank defines crude death as the number of deaths occurring during the year, per 1,000 population estimated at midyear.<br><br>Please see the downloadable excel sheet on the website for the complete definition. | The values are rounded off to two decimal places following the values from the OECD.<br><br>World Bank, World Development Indicators, http://databank.worldbank.org/data/reports.aspx?source=2&country=&series=NY.GDP.TOTL.RT.ZS&period=# |
| **Official Motives**<br><br>**(Donor Interests)** | **Environmental Conservation** | CO2 emissions (kt)<br><br>Carbon dioxide includes emissions produced during consumption of solid, liquid, and gas fuels.<br><br>Please see the downloadable excel sheet on the website for the complete definition. | The values are rounded off to two decimal places following the values from the OECD.<br><br>World Bank, World Development Indicators, http://databank.worldbank.org/data/reports.aspx?source=2&country=&series=NY.GDP.TOTL.RT.ZS&period=# |
| | **Conflicts** | Peace Year<br><br>This variable is coded based on the below data source:<br>Koubi, Vally and Tobias Bohmelt 2014,<br>“Grievances, economic wealth, and civil conflict” Journal of Peace Research, 51(1), 19—33 | Years after conflicts are counted. 0 is put for pre-conflict years. The following year of dummy variable 1 of “onset_new” in the original dataset is put 0. When another episode is observed, counting gets reset. If there is a conflict between 1967 and 1977 in the dataset, years after 1977 are considered as “Post-Conflict”. |
| | **Military Expenditure** | Military Expenditure, Constant US Dollars, Millions | SIPRI Military Expenditure Definitions are below; http://www.sipri.org/research/armaments/milex/milex_database |
| | **Arms Trade** | Arms Import | Arms imports (SIPRI trend indicator values)<br>Source: World Bank, World Development Indicators, http://databank.worldbank.org/data/reports.aspx?source=2&country=&series=NY.GDP.TOTL.RT.ZS&period=# |


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| | | | |
|---|---|---|---|
| | **Democratization** | Democracy<br><br>Freedom House, Freedom in the World,<br>"Individual Country Ratings and Status, 1973-2015"<br>https://freedomhouse.org/report-types/freedom-world | Average between political rights scores and civil liberties scores.<br>Missing values were put in 1982 for the coverage issue on the dataset but average between 1981 and 1983 is used for 1982 in the dataset of this research. |
| | **Human Security** | School2<br><br>Primary School Enrollment Per Capita {.0001}<br><br>Source: Banks Dataset | Banks, Arthur S., Wilson, Kenneth A. 2014. Cross-National Time-Series Data Archive. Databanks International. Jerusalem, Israel. |
| **Latent Motives**<br><br>**(Donor Interests)** | **Japan Trade** | Direction of Trade Statistics (DOTS)<br><br>This variable is measured by the sum of exports from and imports to Japan. | Indicator (Exports): Goods, Value of Exports, Free on board (FOB), US Dollars<br><br>Indicator (Imports): Goods, Value of Imports, Free on board (FOB), US Dollars<br><br>http://data.imf.org/?sk=9d6028d4-f14a-464c-a2f2-59b2cd424b85 |
| | **Votes in the UN** | Population (1000) | Banks, Arthur S., Wilson, Kenneth A. 2014. Cross-National Time-Series Data Archive. Databanks International. Jerusalem, Israel. |
| | **Past Aid Allocation** | Past Aid Allocation is a lagged dependent variable. | OECD, Aid (ODA) disbursements to countries and regions [DAC2a]<br>Donor: Japan, Amount type: Current Prices, Unit: US Dollars, Millions<br><br>http://stats.oecd.org/Index.aspx?ThemeTreeId=3# |
| **Extrinsic Motives**<br><br>**(Third Party Interests)** | **U.S. Influence** | Memo, ODA Total, Gross disbursements, Constant Prices, US Dollars, Millions.<br><br>Source: OECD DAC dataset | OECD, Aid (ODA) disbursements to countries and regions [DAC2a]<br><br>http://stats.oecd.org/Index.aspx?ThemeTreeId=3# |
| | **France Influence** | Memo, ODA Total, Gross disbursements, Constant Prices, US Dollars, Millions.<br><br>Source: OECD DAC dataset | OECD, Aid (ODA) disbursements to countries and regions [DAC2a]<br><br>http://stats.oecd.org/Index.aspx?ThemeTreeId=3# |
| | **China Influence** | Direction of Trade Statistics (DOTS)<br><br>This variable is the sum of exports from China. | Indicator (Exports): Goods, Value of Exports, Free on board (FOB), US Dollars<br><br>http://data.imf.org/?sk=9d6028d4-f14a-464c-a2f2-59b2cd424b85 |


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# Appendix 6. Descriptive Statistics and Correlation Coefficient[2]

**Table 6.1 Descriptive Statistics**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| **Gross Disbursements** | 1891 | 30.49 | 91.9 | 0.01 | 2327.27 |
| **Grants, Total** | 1891 | 20.73 | 71.54 | 0.01 | 2327.27 |
| **Poverty Reduction** | 1785 | 1151.16 | 1925.69 | 65 | 23656 |
| **Humanitarian Needs** | 1998 | 13.67 | 5.03 | 4.17 | 39.97 |
| **Environmental Conservation** | 1793 | 15536.2 | 52988.82 | 3.67 | 477806.4 |
| **Conflicts** | 1531 | 5.53 | 8.11 | 0 | 36 |
| **Military Expenditure** | 1112 | 625.84 | 1311.05 | 1.82 | 11294.83 |
| **Arms Trade** | 1016 | 1.30e+08 | 3.61e+08 | 0 | 4.22e+09 |
| **Democratization** | 1990 | 4.9 | 1.56 | 1 | 7 |
| **Human Security** | 1727 | 1409.23 | 558.19 | 242 | 3023 |
| **Trade** | 1795 | 3.00e+08 | 1.02e+09 | 32940.14 | 1.36e+10 |
| **Votes in the UN** | 1947 | 13668.03 | 20365.75 | 62 | 169600 |
| **U.S. Influence** | 1833 | 101.01 | 375.3 | -2.84 | 12029.26 |
| **France Influence** | 1913 | 85.48 | 154.46 | 0.02 | 2367.09 |
| **China Influence** | 1743 | 3.85e+08 | 1.32e+09 | 6054 | 1.68e+10 |

The value is rounded to two decimal places.

2. This paper uses Stata/IC 13. In order to keep precision of the storage type, “set type double” command is used for some variables on the dataset building process. Although Stata’s storage accuracy is not perfect, it is accurate enough.


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## Table 6.2 Correlation Coefficient (Formative Period)

| | ln(Gross Disbursements) | ln(Poverty Reduction) | In(Humanitarian Needs) | ln(Environmental Conservation) | Conflicts | Democratization | ln(Japan Trade) | ln(Votes in the U.N.) | ln(Past Aid Allocation) | ln(U.S. Influence) |
|---|---|---|---|---|---|---|---|---|---|---|
| ln(Gross Disbursements) | 1.0000 | | | | | | | | | |
| ln(Poverty Reduction) | -0.2248 | 1.0000 | | | | | | | | |
| In(Humanitarian Needs) | -0.0469 | -0.6619 | 1.0000 | | | | | | | |
| ln(Environmental Conservation) | 0.4162 | 0.3440 | -0.3393 | 1.0000 | | | | | | |
| Conflicts | 0.2244 | -0.1105 | 0.0481 | 0.2996 | 1.0000 | | | | | |
| Democratization | -0.1240 | -0.3840 | 0.4999 | -0.2318 | -0.0222 | 1.0000 | | | | |
| ln(Japan Trade) | 0.4695 | 0.1582 | -0.2139 | 0.7395 | 0.1771 | -0.1584 | 1.0000 | | | |
| ln(Votes in the U.N.) | 0.5804 | -0.3720 | 0.2294 | 0.6448 | 0.3516 | 0.1116 | 0.6023 | 1.0000 | | |
| ln(Past Aid Allocation) | 0.8169 | -0.2316 | -0.0321 | 0.4043 | 0.2384 | -0.1169 | 0.4690 | 0.5742 | 1.0000 | |
| ln(U.S. Influence) | 0.5610 | -0.1774 | -0.0819 | 0.4450 | 0.0775 | -0.1424 | 0.4471 | 0.5564 | 0.5516 | 1.0000 |

ln(Past Aid Allocation)= ln(Gross Disbursements)(t-1)

## Table 6.3 Correlation Coefficient (ODA Charter Period)

| | ln(Gross Disbursements) | ln(Poverty Reduction) | In(Humanitarian Needs) | ln(Environmental Conservation) | ln(Military Expenditure) | Democratization | ln(Japan Trade) | ln(Votes in the U.N.) | ln(Past Aid Allocation) | ln(U.S. Influence) | ln(China Influence) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ln(Gross Disbursements) | 1.0000 | | | | | | | | | | |
| ln(Poverty Reduction) | -0.0245 | 1.0000 | | | | | | | | | |
| In(Humanitarian Needs) | -0.2055 | -0.5983 | 1.0000 | | | | | | | | |
| ln(Environmental Conservation) | 0.3504 | 0.4652 | -0.4504 | 1.0000 | | | | | | | |
| ln(Military Expenditure) | 0.2480 | 0.3298 | -0.2824 | 0.8499 | 1.0000 | | | | | | |
| Democratization | -0.2016 | -0.2195 | 0.1279 | -0.0306 | 0.1460 | 1.0000 | | | | | |
| ln(Japan Trade) | 0.4336 | 0.3100 | -0.4022 | 0.8483 | 0.6802 | -0.0325 | 1.0000 | | | | |
| ln(Votes in the U.N.) | 0.3207 | -0.3219 | 0.0747 | 0.6176 | 0.6699 | 0.1555 | 0.5827 | 1.0000 | | | |
| ln(Past Aid Allocation) | 0.8896 | -0.0686 | -0.1722 | 0.3351 | 0.2248 | -0.1518 | 0.4052 | 0.3419 | 1.0000 | | |
| ln(U.S. Influence) | 0.4009 | -0.3618 | 0.2027 | 0.2804 | 0.3920 | -0.0323 | 0.3225 | 0.6148 | 0.3801 | 1.0000 | |
| ln(China Influence) | 0.3024 | 0.2203 | -0.4014 | 0.7616 | 0.5760 | -0.0292 | 0.7098 | 0.5581 | 0.3156 | 0.2762 | 1.0000 |

ln(Past Aid Allocation)= ln(Gross Disbursements)(t-1)

## Table 6.4 Correlation Coefficient (Revised ODA Charter Period)

| | ln(Gross Disbursements) | ln(Poverty Reduction) | In(Humanitarian Needs) | ln(Environmental Conservation) | ln(Military Expenditure) | Democratization | Human Security | ln(Japan Trade) | ln(Votes in the U.N.) | ln(Past Aid Allocation | ln(U.S. Influence) | ln(France Influence) | ln(China Influence) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ln(Gross Disbursements) | 1.0000 | | | | | | | | | | | | |
| ln(Poverty Reduction) | -0.3193 | 1.0000 | | | | | | | | | | | |
| In(Humanitarian Needs) | -0.1299 | -0.3703 | 1.0000 | | | | | | | | | | |
| ln(Environmental Conservation) | 0.2620 | 0.4178 | -0.2709 | 1.0000 | | | | | | | | | |
| ln(Military Expenditure) | 0.2433 | 0.2784 | -0.0981 | 0.8383 | 1.0000 | | | | | | | | |
| Democratization | -0.1658 | -0.0719 | 0.0907 | 0.0541 | 0.3185 | 1.0000 | | | | | | | |
| Human Security | 0.1229 | -0.1667 | 0.1945 | -0.1413 | -0.0270 | -0.1085 | 1.0000 | | | | | | |
| ln(Japan Trade) | 0.2706 | 0.3657 | -0.3374 | 0.8342 | 0.6989 | 0.0583 | -0.1296 | 1.0000 | | | | | |
| ln(Votes in the U.N.) | 0.5479 | -0.4283 | 0.0745 | 0.5771 | 0.6548 | 0.1799 | 0.0795 | 0.4839 | 1.0000 | | | | |
| ln(Past Aid Allocation) | 0.7937 | -0.2626 | -0.1632 | 0.2932 | 0.2298 | -0.2064 | 0.1230 | 0.3012 | 0.5158 | 1.0000 | | | |
| ln(U.S. Influence) | 0.5000 | -0.5749 | 0.2337 | 0.1953 | 0.3631 | -0.0029 | 0.2674 | 0.1995 | 0.7475 | 0.4781 | 1.0000 | | |
| ln(France Influence) | 0.2617 | -0.0320 | -0.2571 | 0.3163 | 0.3564 | 0.0510 | -0.3087 | 0.2594 | 0.4170 | 0.2180 | 0.1039 | 1.0000 | |
| ln(China Influence) | 0.3214 | 0.2247 | -0.3265 | 0.8238 | 0.6790 | 0.0128 | -0.0858 | 0.7787 | 0.6064 | 0.3653 | 0.3103 | 0.3523 | 1.0000 |

ln(Past Aid Allocation)= ln(Gross Disbursements)(t-1)


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# Appendix 7. Panel Data Analysis on Japan's Bilateral ODA (without Environmental Conservation)[3]

As table 6.2, table 6.3, and table 6.4 show, environmental conservation has a strong correlation with military expenditure, Japan trade and Chinese influence. In order to avoid multicollinearity, all models were tested again without environmental conservation. Hausman tests were conducted at the 5 percent level to decide whether fixed effects or random effects should be used. The results were similar to the ones in the paper.

**Table 7.1 Results of Estimation (Formative Period)**

| Independent Variables | Latent Motives Fixed Effects | Third Party Fixed Effects |
|---|---|---|
| ln(Poverty Reduction)(t-1) | 0.016 | 0.158 |
| | (0.09) | (0.88) |
| ln(Humanitarian Needs)(t-1) | -0.034 | -0.049 |
| | (-1.05) | (-1.46) |
| Conflicts | 0.02 | 0.006 |
| | (0.85) | (0.25) |
| Democratization(t-1) | 0.011 | 0.032 |
| | (0.13) | (0.35) |
| ln(Japan Trade)(t-1) | 0.055 | -0.004 |
| | (0.58) | (-0.04) |
| ln(Votes in the U.N.)(t-1) | 1.923*** | 2.659*** |
| | (3.59) | (4.67) |
| ln(Past Aid Allocation)(t-1) | 0.331*** | 0.242*** |
| | (8.14) | (5.29) |
| ln(U.S. Influence)(t-1) | | 0.142* |
| | | (1.74) |
| _cons | -15.991*** | -22.155*** |
| | (-3.24) | (-4.39) |
| Number of Observation | 508 | 457 |
| Number of Countries | 44 | 43 |
| $R^2$ (overall) | 0.438 | 0.435 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

3. ln(Past Aid Allocation)(t-1) = ln(Bilateral ODA Disbursements)(t-1)


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## Table 7.2 Results of Estimation (ODA Charter Period)[4]

| Independent Variables | Latent Motives Fixed Effects | Third Party 1 Fixed Effects | Third Party 2 Fixed Effects |
|---|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.049 | -0.074 | -0.052 |
| | (-0.21) | (-0.32) | (-0.22) |
| In(Humanitarian Needs(t-1) | 0.027 | 0.024 | 0.029 |
| | (1.20) | (1.09) | (1.27) |
| ln(Military Expenditure)(t-1) | 0.294** | 0.316** | 0.301** |
| | (2.00) | (2.16) | (2.04) |
| Democratization(t-1) | -0.182*** | -0.175** | -0.185*** |
| | (-2.63) | (-2.56) | (-2.66) |
| ln(Japan Trade)(t-1) | -0.01 | 0.015 | 0.001 |
| | (-0.08) | (0.12) | (0.01) |
| ln(Votes in the U.N.)(t-1) | -1.345* | -1.346* | -1.121 |
| | (-1.88) | (-1.81) | (-1.33) |
| ln(Past Aid Allocation)(t-1) | 0.515*** | 0.547*** | 0.515*** |
| | (11.51) | (12.00) | (11.50) |
| ln(U.S. Influence)(t-1) | | 0.0002 | |
| | | (0.00) | |
| ln(China Influence)(t-1) | | | -0.041 |
| | | | (-0.51) |
| _cons | 12.729* | 12.446 | 11.172 |
| | (1.71) | (1.59) | (1.38) |
| Number of Observation | 371 | 346 | 371 |
| Number of Countries | 46 | 44 | 46 |
| $R^2$ (overall) | 0.047 | 0.084 | 0.102 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

## Table 7.3 Results of Estimation (Revised ODA Charter Period)

| Independent Variables | Latent Motives Fixed Effects | Third Party 1 Fixed Effects | Third Party 2 Fixed Effects | Third Party 3 Fixed Effects |
|---|---|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.859* | -0.946** | -0.895** | -1.26** |
| | (-1.93) | (-2.15) | (-2.02) | (-2.61) |
| In(Humanitarian Needs)(t-1) | -0.203 | -0.129 | -0.243* | -0.171 |
| | (-1.62) | (-1.02) | (-1.93) | (-1.36) |
| ln(Military Expenditure)(t-1) | 0.08 | -0.025 | 0.141 | 0.077 |
| | (0.29) | (-0.09) | (0.51) | (0.28) |
| Democratization(t-1) | -0.562*** | -0.565*** | -0.558*** | -0.605*** |
| | (-2.70) | (-2.76) | (-2.70) | (-2.91) |
| Human Security(t-1) | 0.275 | 0.572 | 0.325 | 0.252 |
| | (0.57) | (1.18) | (0.68) | (0.53) |
| ln(Japan Trade)(t-1) | 0.152 | 0.164 | 0.139 | 0.067 |
| | (1.13) | (1.24) | (1.05) | (0.48) |
| ln(Votes in the U.N.)(t-1) | 2.951 | 2.861 | 2.969 | 1.017 |
| | (1.34) | (1.31) | (1.35) | (0.43) |
| ln(Past Aid Allocation)(t-1) | 0.341*** | 0.363*** | 0.323*** | 0.328*** |
| | (5.73) | (6.12) | (5.40) | (5.51) |
| ln(U.S. Influence)(t-1) | | 0.278*** | | |
| | | (3.04) | | |
| ln(France Influence)(t-1) | | | 0.163** | |
| | | | (2.10) | |
| ln(China Influence)(t-1) | | | | 0.383** |
| | | | | (2.05) |
| _cons | -19.521 | -21.887 | -19.924 | -4.837 |
| | (-1.03) | (-1.17) | (-1.06) | (-0.24) |
| Number of Observation | 315 | 314 | 315 | 315 |
| Number of Countries | 50 | 50 | 50 | 50 |
| $R^2$ (overall) | 0.426 | 0.429 | 0.421 | 0.478 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

4. Coefficient of U.S. Influence had 0 to the third dismal and the value was rounded to the fourth dismal.


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# Appendix 8.
# Panel Data Analysis on Japan's Bilateral Grant Disbursements[5]

The models in the paper use only gross aid disbursements for the dependent variable. This variable has to be disaggregated into sub-categories. The dependent variable in this appendix is the amount of Japan's bilateral grants disbursements measured by the OECD. The OECD defines grants as transfers in cash, goods or services for which repayment is not required.[6] The grants data includes both grant aid and technical cooperation. The grants are selected as the dependent variable because Japan had a tendency to give grants rather than loans to Africa. Figure 8.1 illustrates that Japan's bilateral grants to Africa have dramatically increased. Hausman tests were conducted at the 5 percent level to decide whether fixed effects or random effects should be used. The results were similar to the ones in the main paper.

5. ln(Past Aid Allocation)(t-1) = ln(Bilateral Grants Disbursements)(t-1)
6. Please see the following website;
http://www.oecd.org/dac/stats/dac-glossary.htm#TC (accessed on March 25th, 2016)


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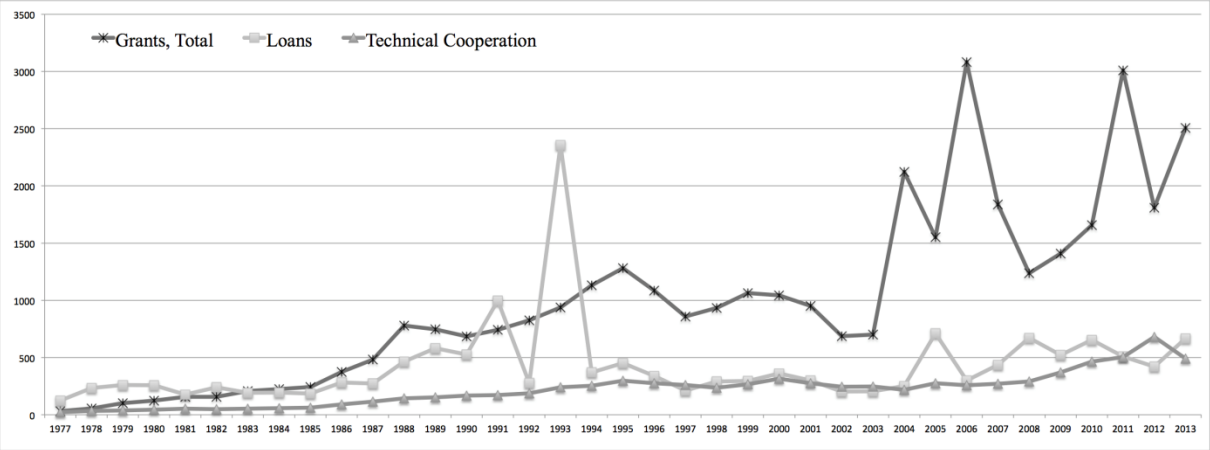
**Figure 8.1 Japan's aid to Africa by aid types**[7]




Source: Made from OECD Dataset, Aid (ODA) disbursements to countries and regions [DAC2a] http://stats.oecd.org/Index.aspx?ThemeTreeId=3# (accessed on December 16th, 2015)

**Table 8.1 Results of Estimation (Formative Period)**

| Independent Variables | Latent Motives Fixed Effects | Third Party Fixed Effects |
|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.079 | -0.094 |
| | (-0.48) | (-0.56) |
| In(Humanitarian Needs)(t-1) | 0.002 | 0.003 |
| | (0.05) | (0.09) |
| ln(Environmental Conservation)(t-1) | 0.377*** | 0.508*** |
| | (2.83) | (3.75) |
| Conflicts | 0.043** | 0.031 |
| | (2.00) | (1.47) |
| Democratization(t-1) | -0.067 | -0.087 |
| | (-0.90) | (-1.06) |
| ln(Japan Trade)(t-1) | 0.028 | -0.009 |
| | (0.33) | (-0.10) |
| ln(Votes in the U.N.)(t-1) | 1.7*** | 2.283*** |
| | (3.35) | (4.23) |
| ln(Past Aid Allocation)(t-1) | 0.395*** | 0.324*** |
| | (9.72) | (7.23) |
| ln(U.S. Influence)(t-1) | | 0.159** |
| | | (2.20) |
| _cons | -16.379*** | -21.733*** |
| | (-3.64) | (-4.71) |
| Number of Observation | 504 | 453 |
| Number of Countries | 43 | 42 |
| $R^2$ (overall) | 0.345 | 0.359 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

7. The unit is Million US Dollars, current prices. For recipients, both "North of Sahara" and "South of Sahara" are selected. The OECD dataset uses different aid types from Japan's aid categorization. Japan's bilateral ODA can be divided into grant aid, technical cooperation, and loans, while grants data of the OECD include both grant aid and technical cooperation.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## Table 8.2 Results of Estimation (ODA Charter Period)

| Independent Variables | Latent Motives Fixed Effects | Third Party 1 Fixed Effects | Third Party 2 Fixed Effects |
|---|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.16 | -0.171 | -0.166 |
| | (-0.76) | (-0.84) | (-0.79) |
| ln(Humanitarian Needs)(t-1) | 0.026 | 0.024 | 0.028 |
| | (1.23) | (1.20) | (1.31) |
| ln(Environmental Conservation)(t-1) | 0.274 | 0.299* | 0.299* |
| | (1.58) | (1.67) | (1.68) |
| ln(Military Expenditure)(t-1) | 0.291** | 0.3** | 0.297** |
| | (2.21) | (2.31) | (2.24) |
| Democratization(t-1) | -0.181*** | -0.164*** | -0.185*** |
| | (-2.91) | (-2.72) | (-2.96) |
| ln(Japan Trade)(t-1) | 0.001 | 0.043 | 0.012 |
| | (0.01) | (0.36) | (0.10) |
| ln(Votes in the U.N.)(t-1) | -1.376* | -1.184* | -1.163 |
| | (-1.97) | (-1.69) | (-1.49) |
| ln(Past Aid Allocation)(t-1) | 0.531*** | 0.563*** | 0.529*** |
| | (12.18) | (12.71) | (12.11) |
| ln(U.S. Influence)(t-1) | | 0.055 | |
| | | (1.06) | |
| ln(China Influence)(t-1) | | | -0.047 |
| | | | (-0.61) |
| _cons | 11.335 | 8.55 | 9.805 |
| | (1.61) | (1.19) | (1.31) |
| Number of Observation | 361 | 336 | 361 |
| Number of Countries | 45 | 43 | 45 |
| $R^2$ (overall) | 0.11 | 0.33 | 0.205 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

## Table 8.3 Results of Estimation (Revised ODA Charter Period)

| Independent Variables | Latent Motives Fixed Effects | Third Party 1 Fixed Effects | Third Party 2 Fixed Effects | Third Party 3 Fixed Effects |
|---|---|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.69 | -0.777* | -0.729* | -1.054** |
| | (-1.56) | (-1.77) | (-1.67) | (-2.19) |
| ln(Humanitarian Needs)(t-1) | -0.157 | -0.09 | -0.209* | -0.128 |
| | (-1.27) | (-0.72) | (-1.70) | (-1.03) |
| ln(Environmental Conservation)(t-1) | -0.367 | -0.215 | -0.487 | -0.334 |
| | (-0.64) | (-0.38) | (-0.86) | (-0.59) |
| ln(Military Expenditure)(t-1) | 0.184 | 0.082 | 0.27 | 0.182 |
| | (0.68) | (0.30) | (1.00) | (0.67) |
| Democratization(t-1) | -0.362* | -0.368* | -0.353* | -0.402** |
| | (-1.78) | (-1.84) | (-1.76) | (-1.98) |
| Human Security(t-1) | 0.7 | 0.953** | 0.793* | 0.689 |
| | (1.49) | (2.02) | (1.71) | (1.47) |
| ln(Japan Trade)(t-1) | 0.065 | 0.071 | 0.049 | -0.011 |
| | (0.49) | (0.54) | (0.38) | (-0.08) |
| ln(Votes in the U.N.)(t-1) | 3.363 | 3.048 | 3.521 | 1.592 |
| | (1.47) | (1.35) | (1.57) | (0.65) |
| ln(Past Aid Allocation)(t-1) | 0.298*** | 0.317*** | 0.278*** | 0.285*** |
| | (4.90) | (5.23) | (4.60) | (4.67) |
| ln(U.S. Influence)(t-1) | | 0.265*** | | |
| | | (2.97) | | |
| ln(France Influence)(t-1) | | | 0.219*** | |
| | | | (2.92) | |
| ln(China Influence)(t-1) | | | | 0.342* |
| | | | | (1.87) |
| _cons | -25.068 | -26.049 | -26.201 | -11.822 |
| | (-1.33) | (-1.39) | (-1.41) | (-0.59) |
| Number of Observation | 313 | 312 | 313 | 313 |
| Number of Countries | 50 | 50 | 50 | 50 |
| $R^2$ (overall) | 0.417 | 0.44 | 0.406 | 0.476 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.


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# Appendix 9.
# Panel Data Analysis on Japan's Total ODA Commitments[8]

The paper uses the total amount of Japanese bilateral ODA disbursements to capture the actual ODA implementation. However, the amount of ODA commitments is still another possible dependent variable. All models were tested using this data, and the results were slightly different from the ones in the paper.

**Table 9.1 Results of Estimation (Formative Period)**

| Independent Variables | Latent Motives Fixed Effects | Third Party Fixed Effects |
|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.21 | -0.164 |
| | (-0.97) | (-0.73) |
| ln(Humanitarian Needs)(t-1) | -0.026 | -0.041 |
| | (-0.70) | (-1.06) |
| ln(Environmental Conservation)(t-1) | 0.103 | 0.132 |
| | (0.58) | (0.74) |
| Conflicts | 0.042 | 0.022 |
| | (1.50) | (0.78) |
| Democratization(t-1) | 0.088 | 0.055 |
| | (0.91) | (0.53) |
| ln(Japan Trade)(t-1) | 0.026 | -0.049 |
| | (0.23) | (-0.41) |
| ln(Votes in the U.N.)(t-1) | 2.192*** | 2.8*** |
| | (3.54) | (4.37) |
| ln(Past Aid Allocation)(t-1) | 0.112** | 0.056 |
| | (2.56) | (1.22) |
| ln(U.S. Influence)(t-1) | | 0.077 |
| | | (1.27) |
| _cons | -17.439*** | -21.306*** |
| | (-3.15) | (-3.81) |
| Number of Observation | 502 | 470 |
| Number of Countries | 43 | 42 |
| $R^2$ (overall) | 0.28 | 0.308 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

8. ln(Past Aid Allocation)(t-1) = ln(Total ODA Commitments)(t-1)


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## Table 9.2 Results of Estimation (ODA Charter Period)[9]

| Independent Variables | Latent Motives 1 Fixed Effects | Third Party 1 Fixed Effects | Third Party 2 Fixed Effects |
|---|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.155 | -0.213 | -0.159 |
| | (-0.50) | (-0.71) | (-0.51) |
| In(Humanitarian Needs)(t-1) | 0.023 | 0.02 | 0.024 |
| | (0.76) | (0.70) | (0.79) |
| ln(Environmental Conservation)(t-1) | 0.37 | 0.454* | 0.385 |
| | (1.46) | (1.72) | (1.48) |
| ln(Military Expenditure)(t-1) | 0.464** | 0.485** | 0.468** |
| | (2.41) | (2.55) | (2.42) |
| Democratization(t-1) | -0.222** | -0.205** | -0.224** |
| | (-2.42) | (-2.24) | (-2.43) |
| ln(Japan Trade)(t-1) | -0.253 | -0.197 | -0.246 |
| | (-1.43) | (-1.12) | (-1.37) |
| ln(Votes in the U.N.)(t-1) | -2.818*** | -2.788*** | -2.691** |
| | (-2.75) | (-2.72) | (-2.35) |
| ln(Past Aid Allocation)(t-1) | 0.249*** | 0.313*** | 0.248*** |
| | (4.54) | (5.54) | (4.51) |
| ln(U.S. Influence)(t-1) | | -0.037 | |
| | | (-0.54) | |
| ln(China Influence)(t-1) | | | -0.028 |
| | | | (-0.25) |
| _cons | 28.156*** | 26.673** | 27.247** |
| | (2.73) | (2.55) | (2.48) |
| Number of Observation | 361 | 338 | 361 |
| Number of Countries | 45 | 44 | 45 |
| $R^2$ (overall) | 0.033 | 0.015 | 0.03 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

## Table 9.3 Results of Estimation (Revised ODA Charter Period)

| Independent Variables | Latent Motives 1 Fixed Effects | Third Party 1 Fixed Effects | Third Party 2 Fixed Effects | Third Party 3 Fixed Effects |
|---|---|---|---|---|
| ln(Poverty Reduction)(t-1) | -0.58 | -0.615 | -0.626 | -0.863 |
| | (-1.15) | (-1.22) | (-1.25) | (-1.58) |
| In(Humanitarian Needs)(t-1) | -0.185 | -0.169 | -0.236 | -0.16 |
| | (-1.33) | (-1.19) | (-1.65) | (-1.14) |
| ln(Environmental Conservation)(t-1) | 0.034 | 0.011 | -0.051 | 0.07 |
| | (0.05) | (0.02) | (-0.08) | (0.11) |
| ln(Military Expenditure)(t-1) | -0.129 | -0.162 | -0.058 | -0.131 |
| | (-0.42) | (-0.52) | (-0.19) | (-0.43) |
| Democratization(t-1) | -0.399* | -0.393* | -0.397* | -0.429* |
| | (-1.73) | (-1.70) | (-1.73) | (-1.85) |
| Human Security(t-1) | 0.38 | 0.459 | 0.444 | 0.368 |
| | (0.71) | (0.85) | (0.83) | (0.69) |
| ln(Japan Trade)(t-1) | 0.146 | 0.146 | 0.142 | 0.084 |
| | (0.97) | (0.98) | (0.95) | (0.53) |
| ln(Votes in the U.N.)(t-1) | 2.909 | 2.744 | 2.874 | 1.485 |
| | (1.13) | (1.05) | (1.12) | (0.53) |
| ln(Past Aid Allocation)(t-1) | 0.212*** | 0.217*** | 0.195*** | 0.209*** |
| | (3.55) | (3.60) | (3.22) | (3.50) |
| ln(U.S. Influence)(t-1) | | 0.094 | | |
| | | (1.01) | | |
| ln(France Influence)(t-1) | | | 0.126 | |
| | | | (1.54) | |
| ln(China Influence)(t-1) | | | | 0.269 |
| | | | | (1.30) |
| _cons | -21.549 | -20.643 | -20.756 | -10.925 |
| | (-1.01) | (-0.96) | (-0.98) | (-0.48) |
| Number of Observation | 313 | 312 | 313 | 313 |
| Number of Countries | 50 | 50 | 50 | 50 |
| $R^2$ (overall) | 0.427 | 0.436 | 0.426 | 0.457 |

*p<0.1, **p<0.05, ***p<0.01
Numbers in the parentheses are t statistics.

9. Coefficient of U.S. Influence had 0 to the third dismal and the value was rounded to the fourth dismal.


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# Appendix 10.
# The First Power Shift in Senegal and Cote d'Ivoire

In the first round of the presidential election held on February 27th, 2000, Abdou Diouf the leader of the Parti Socialiste received more votes than Abdoulaye Wade of the Parti démocratique Sénégalais. However, neither of them won over 50% of the vote, which lead to a second round that was held on March 19th. In the second round, Wade won 58.49 % and Senegal experienced its first electoral turnover (African Elections Database). About three months before the electoral turnover in Senegal, Cote d'Ivoire experienced its first coup. Veterans of the UN mission attacked the National Radio and Television Station on December 23rd, 1999 (Fraternité Matin 1999a, 2). On the following day, Robert Guéï moved to Abidjan and established the National Committee of Public Salvation, which ended the Parti Démocratique de Côte d'Ivoire (PDCI) regime (Fraternité Matin 1999b, 2).


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