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**AN ECONOMIC ANALYSIS OF  
AID FUNGIBILITY:  
JAPAN'S OFFICIAL DEVELOPMENT  
ASSISTANCE TO INDONESIA**

**A Research Thesis submitted in fulfilment of the requirements for  
the degree of Masters of Applied Economics at Massey University**

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## STATEMENT OF SOURCES

The work presented in this study is the original and independent work of the author, except where otherwise stated or acknowledged. No part of this work has been previously submitted to this, or any other university, for the attainment of a formal qualification.



Keiju Mitsuhashi  
3 February, 1997

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## ABSTRACT

This study examines aid fungibility of Japan's official development assistance (ODA) to Indonesia for the period 1973 to 1994. Aid fungibility, often known as switching of aid money into non-development purposes, is one of the most controversial issues that impinges upon the macroeconomic effectiveness of foreign aid. In this study Japan's foreign aid to Indonesia is analysed, since Indonesia is one of the largest recipients of Japan's aid, and also since Japan is the largest aid donor to Indonesia.

Using the maximum likelihood cointegration econometric procedure and the error correction mechanism (ECM), the study analyses aid fungibility for non-development current expenditure, development expenditure and domestic revenue for Indonesia. The results indicate that none of Japan's total sectoral aid, other donors' total sectoral aid, and non-sectoral aid from all donors, leaks into non-development current expenditure or reduces domestic revenue. Hence, no evidence of aid fungibility at the aggregate level is found.

The study further analyses aid fungibility at the sectoral level for four major sections, i.e. social services sector, economic services sector, production sector, and other sectors. The empirical results provide no evidence that Japan's aid to the social services and production sectors is fungible. However, Japan's aid to the economic services sectors and other sectors is fungible. Furthermore, other donors' sectoral aid to all four sectors is fungible. Also, there is diversion of resources into the other sectors from other three combined sectors, i.e. social services sector, economic services sector, and production sector. This suggests that Japan's aid to the economic services sector and other donors' sectoral aid to the social services sector, economic services sector, production sector, may diverge into the other sectors. This study concludes by speculating the importance of aid sources and sectors to which aid is allocated as some of the factors that explain aid fungibility in Indonesia.

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## LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ADF	Augmented Dickey-Fuller
AIDS	Acquired Immune Deficiency Syndrome
APIC	Association for Promotion of International Cooperation
BAPPENAS	Badan Perencanaan Pembangunan Nasional (Ministry of National Development Planning of Indonesia)
BHN	Basic Human Needs
BPS	Biro Pusat Statistik (Indonesian Bureau of Central Statistics)
CEC	Central East European Countries
CGI	Consultative Group for Indonesia
CRS	Creditor Reporting System
DAC	Development Assistance Committee
DF	Dickey-Fuller
DGP	Data Generating Process
EBRD	East Europe and European Bank for Reconstruction and Development
ECM	Error Correction Mechanism
EPA	Economic Planning Agency
EROA	Economic Rehabilitation in Occupied Areas Fund
GARIOA	Government Appropriation for Relief in Occupied Areas Fund
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GNP	Gross National Product
IDC	International Development Center (Japan)
IFAD	International Fund for Agricultural Development
IFS	International Financial Statistics
IGGI	Inter-Governmental Group for Indonesia
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
LLDC	Least Less Developed Countries
MFA	Ministry of Foreign Affairs, Indonesia
MFOA	Ministry of Foreign Affairs

MITI	Ministry of International Trade and Industry
MOF	Ministry of Finance
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OECF	Overseas Economic Cooperation Fund
OLS	Ordinary Least Square
OOF	Other Official Flows
PPP	Purchasing Power Parity
REPELITA	Rencana Pembangunan Lima Tahun (5-year national development plan of Indonesia)
SUR	Seemingly Unrelated Regression
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WFP	World Food Programme
WHO	World Health Organisation