

Dependent Variable: Gross Domestic Product( GDP)  
 Independent Variables Capital inflow (Kinf) ,Political instability (PS) , Lagged GDP  
 Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5203678.	1291728.	4.028465	0.0020
KINF	3.365225	1.646841	2.043442	0.0657
PS	-4302640.	1413894.	-3.043114	0.0112
GDP(-1)	0.832680	0.126741	6.569929	0.0000
R-squared	0.993663	Mean dependent var		18580635
Adjusted R-squared	0.991934	S.D. dependent var		17405901
S.E. of regression	1563218.	Akaike info criterion		31.58557
Sum squared resid	2.69E+13	Schwarz criterion		31.77438
Log likelihood	-232.8918	F-statistic		574.9100
Durbin-Watson stat	2.132540	Prob(F-statistic)		0.000000

Dependent Variable: Exchange Rate ( EXCH)				
Independent Variables Capital inflow ,(Kinf) , Lagged GDP and Inflation				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1390.463	322.6503	4.309504	0.0015
KINF	-0.000512	0.000198	-2.583479	0.0273
GDP(-1)	7.30E-05	1.87E-05	3.910312	0.0029
INFLATION	-6.192989	2.942927	-2.104364	0.0616
MA(3)	-0.957747	0.065282	-14.67090	0.0000
R-squared	0.969864	Mean dependent var	1500.233	
Adjusted R-squared	0.957809	S.D. dependent var	1108.192	
S.E. of regression	227.6278	Akaike info criterion	13.95450	
Sum squared resid	518144.2	Schwarz criterion	14.19052	
Log likelihood	-99.65877	F-statistic	80.45589	
Durbin-Watson stat	2.101031	Prob(F-statistic)	0.000000	
Inverted MA Roots	.99	-.49 -.85i	-.49+.85i	

Dependent Variable: Degree of Monetization DOMZ  
 Independent Variables Exchange Rate (EXCH) , Lagged GDP  
 ,Growth Rate of Money supply  
 (M2gr) , and Capital inflow(Kinf)

Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXCH	-0.000149	1.74E-05	-8.586609	0.0000
GDP(-1)	1.12E-08	2.30E-09	4.865760	0.0007
C	0.240740	0.021576	11.15774	0.0000
M2GR	0.000637	0.000215	2.955547	0.0144
KINF	-4.40E-08	1.94E-08	-2.267726	0.0468
R-squared	0.945325	Mean dependent var		0.180000
Adjusted R- squared	0.923455	S.D. dependent var		0.081591
S.E.of regression	0.022574	Akaike info criterion		-4.482865
Sum squared resid	0.005096	Schwarz criterion		-4.246848
Log likelihood	38.62149	F-statistic		43.22485
Durbin- Watson stat	2.172680	Prob(F-statistic)		0.000003

Dependent Variable: Capital inflow( KINF)  
 Independent variables Fiscal Deficit as Ratio of GDP (OFD),  
 Political instability (PS) , GDP ,and Exchange  
 Rate (EXCH)  
 Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OFD	-1.041825	0.444355	-2.344578	0.0389
PS	187727.7	72.45928	2590.803	0.0000
GDP	0.121386	0.008331	14.57035	0.0000
EXCH	-762.9873	72.79309	-10.48159	0.0000
MA(3)	-0.969205	0.223079	-4.344669	0.0012
R-squared	0.988516	Mean dependent var	893809.0	
Adjusted R-squared	0.984340	S.D. dependent var	1195663.	
S.E. of regression	149627.4	Akaike info criterion	26.91999	
Sum squared resid	2.46E+11	Schwarz criterion	27.16142	
Log likelihood	-210.3599	Durbin-Watson stat	2.076249	
Inverted MA Roots	.99	-.49 -.86i	-.49+.86i	

Domestic Savings and Investment as Ratio of GDP in Sudan Ls Million					
	investment	saving	GDP	I/GDP	s/GDP
1988	7162.6	1950.6	46791.1	15%	4%
1989	11000.4	3903.6	82562.0	13%	5%
1990	10266	1663	110110.7	9%	2%
1991	25888.9	5017.8	192660.5	13%	3%
1992	73052.3	51506.2	421818.0	17%	12%
1993	187960	73713	948448.0	20%	8%
1994	426439	91203.7	1881289.0	23%	5%
1995	894045.9	443382.4	4049739.4	22%	11%
1996	140908.2	-27645.4	1047813.7	13%	-3%
1997	284293.7	-14605.2	1613737.4	18%	-1%
1998	575137.7	129486.2	2193591.0	26%	6%
1999	442450.8	102766.3	2705881.4	16%	4%
2000	388761.7	-97770.2	3366270.9	12%	-3%
2001	678747.2	201020.8	4065959.0	17%	5%
2002	1042641.3	169117	4283553.8	24%	4%
2003	1025156.4	188847.2	4971336.2	21%	4%
2004	1079160.2	310482.6	5725013.9	19%	5%

Source : Central Bureau of Statistic  
Ministry of Finance Economic Review  
Bank of Sudan Annual Reports

## Appendix (1)

### Loans and Grants

<b>1989</b>		
<b>Donors</b>	<b>Amount in US\$ million</b>	<b>Projects</b>
International Organizations	133.9	Energy ,Mining ,Agriculture ,transport, Regional planning ,balance of payments support
Regional Organizations	۸۶.۱	
Arab Funds	۳۵.۳	
Libya	۷۵.۰	Petroleum
ADB	۵۸.۹	Agricultural input
IBRD	۱۳.۶	Wheat
USA	۳۰.۰	Wheat
Italy	۱۰.۴	Industrial input
<b>Total</b>	<b>443.0</b>	
<b>1990</b>		
	<b>524.6</b>	
<b>1992</b>		
<b>Donors</b>	<b>Amount US\$ million</b>	<b>Projects</b>
ADF, Saudi Fund ,ADB,	174.3	Development loans ” ” ” ” ” ”
IBRD , IDA	۷۳.۰	
Africa Development Fund	۳۲.۲	
Africa Development Bank	۱۲.۴	
Kuwaiti Fund	۸.۹	
China	۴.۷	

Others	٦.٦	
<b>Total</b>		<b>312.1</b>
<b>١٩٩٣</b>		
Donors	Amount US\$ million	Projects
IBRD , IDA	74.9	Development loans and Commodity loans .
Africa Development Bank	٨.٤	
IFAD	٢.٧	
Others	١٧.٩	
Grants	9.7	
Commodity loan	١٠.٤.٥	
<b>Total</b>	<b>218.1</b>	
<b>1994</b>		
IBRD	7.0	Development loans
OPEC	١٣.٩	
IFAD	٣.٠	
Africa Development Bank	١.٧	
Indonesia	٣.٥	
Islamic Development Bank	١.٨	High ways
Grants	٢.١	
<b>Total</b>		<b>32.6</b>
<b>1995</b>		
Africa Development Bank		Jabal Awlia energy station

Islamic Development bank		Rossairs Dam
OPEC		Agricultural input ,irrigation projects in Northern States
<b>Total</b>		<b>67.8</b>
<b>1996</b>		
IFAD	14.3	
Islamic Development Bank	2.8	
OPEC	17.4	
Africa Development bank	13.4	
WFP	12.7	
<b>Total</b>		<b>60.8</b>
<b>1997</b>		
IFAD	10.2	
Islamic Development Bank	6.8	Rossairs dam ,Kordofan State development ,ElObeid-Bara Road
OPEC	0.2	
WFP	4.8	
African Development Fund	1.4	
<b>Total</b>		<b>23.4</b>
<b>1998</b>		
	18.6	various
<b>1999</b>		



Islamic Development Bank	41.0	Various
IFAD Grants	۰.۲.۸	
WFP	11.0	
KSA	۲۲.۷	Cash grant
China	۱.۰	Development grant
Islamic Development Bank	۰.۹	Research
<b>Total</b>		<b>79.4</b>
<b>2000</b>		
Islamic Development Bank	14.6	Various
IFAD Grants	۱.۹	
KSA	۱۷.۸	Health, Water, Education
WFP	۳.۸	Commodity
<b>Total</b>		<b>38.1</b>
<b>۲۰۰۱</b>		
Islamic Development Bank	۶.۰	Various
Abu Dhabi Fund	۰.۱	
IFAD	۳.۰	
OPEC	۱۲.۶	
Grants		
WFP	5.9	
Islamic Development Bank	۰.۳	
Saudi Fund	۲.۰	
<b>Total</b>		<b>29.9</b>

<b>2002</b>		
Qatar	15.0	Marawee dam
Islamic development Bank	12.0	Rossairs dam
Abu Dhabi Fund	8.9	Khartoum State electricity (Qarri)
IFAD	4.1	Kordofan rural development
China	1.8	Khartoum State electricity
Kuwaiti Fund	1.8	Marawee dam
Arab Fund	0.7	Atbara –Haya Port Sudan Road
Grants		
WFP	32.0	Research , commodity
Islamic development Bank	1.3	
Saudi Fund	0.8	
Arab Fund	0.4	

2003		
Oman	29.2	Marawee dam
Saudi Fund	8.1	
Kuwait	4.9	
AbuDhabi	4.9	
Grants		
Arab Fund	16.3	Electricity Atbara Haya Port Sudan Road
OPEC	8.0	Electricity
Islamic Development Bank	7.0	Rural development (Kordofan)

IFAD	٤.٦	Rossairs dam
China	١.٢	Khartoum State electricity
Total		<b>101.7</b>

٢٠٠٤		
Oman	53.9	Marawee dam ”
Saudi Fund	٢٠.٦	
Abu Dhabi Fund	١٧.٥	
Kuwait	١٣.٨	
Arab Fund	٤٦.٢	PortSudan –Haya road
AMF	٢٢.٨	Development projects
Islamic Development Fund	٢٠.٦	Highways
IFAD	٦.٣	Kordofan riral development
OPEC	١.٣	Rossairs dam
China	٦.٦	Khartoum State electricity
India	٣.٥	Railways
Grant		
Arab Fund	٤٦.٢	Various , ,
IFAD	٠.١	
Islamic Development Fund	٠.٧	
Arab Fund	٤.١	
Saudi Fund	٠.٠٤	
Africa Development Bank	٠.٥	
Total		

**Appendix**  
**Sudan's Total Obligations**  
**During 1994-2004**  
 US\$ Millions

**1994**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions				
Non- Paris Club				
Paris Club				
Commercial Banks				
Foreign Suppliers				
Total	,958	3,624	3,624	18,206

**1995**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions				
Non- Paris Club				
Paris Club				
Commercial Banks				
Foreign Suppliers				
Total	8,323	4,228	3,258	15,809

**1996**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	1,318	785	330	2,433
Non- Paris Club	2,738	913	1,812	5,463
Paris Club	1,702	1,426	1,619	4,747
Commercial Banks	1,741	1,152	0	2,893
Foreign Suppliers	743	0	0	743
Total	8,241	4,276	3,761	16,280

**Cont.**

**1997**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	1,244	803	301	2,348
Non- Paris Club	2,794	834	1,963	5,591
Paris Club	1,629	1,353	1,771	4,753
Commercial Banks	1,747	1,088	0	2,835
Foreign Suppliers	794	0	0	794
Total	8,208	4,078	4,035	16,321

**1998**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	1,274	894	330	2,498
Non- Paris Club	2,853	853	2,288	5,994
Paris Club	1,838	1,466	2,166	5,470
Commercial Banks	1,752	1,207	0	2,959
Foreign Suppliers	728	0	0	728
Total	8,445	4,420	4,784	17,649

**1999**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	2,976	1,041	344	4,361
Non- Paris Club	3,470	774	2,506	6,750
Paris Club	2,363	1,425	2,333	6,121
Commercial Banks	1,551	1,063	0	2,614
Foreign Suppliers	700	0	0	700
Total	11,060	4,303	5,183	20,546

**Cont.**

**2000**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	2,907	908	362	4,177
Non- Paris Club	3,393	1,093	2,493	6,979
Paris Club	2,277	1,371	2,427	6,075
Commercial Banks	1,524	1,083	-	2,607
Foreign Suppliers	683	-	-	683
Total	10,784	4,455	5,282	20,531

**2001**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	2,831	823	241	3,895
Non- Paris Club	3,515	1,129	2,824	7,468
Paris Club	2,165	1,290	2,682	6,137
Commercial Banks	1,415	1,106	0	2,521
Foreign Suppliers	777	0	0	777
Total	10,703	4,348	5,747	20,798

**2002**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	2,926	923	261	4,110
Non- Paris Club	4,222	1,152	3,281	8,655
Paris Club	2,344	1,414	3,308	7,066
Commercial Banks	1,543	1,375	0	2,918
Foreign Suppliers	859	0	0	859
Total	11,894	4,864	6,850	23,608

**Cont.**

**2003**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	3,094	1,032	267	4,393
Non- Paris Club	4,067	1,171	3,364	8,602
Paris Club	2,660	1,747	4,115	8,522
Commercial Banks	1,780	1,661	0	3,441
Foreign Suppliers	752	0	0	752
Total	12,353	5,611	7,746	25,710

**2004**

Particular	Principal	Interest	Delay Interest	Total
Multilateral Institutions	3,218	1,134	288	4,640
Non- Paris Club	4,141	1,216	3,786	9,143
Paris Club	2,619	1,616	4,489	8,724
Commercial Banks	1,863	1,648	0	3,511
Foreign Suppliers	805	0	0	805
Total	12,646	5,614	8,563	26,823

Source: external debt unit – annual reports – Central bank of Sudan



**Appendix**  
**Loans and Grants by Creditors**  
**2004–1989**  
**\$ Million**

<b>Creditors</b>	<b>Years</b>	<b>Loans &amp; Grants</b>	<b>Utilization</b>
<b>1- IFAD</b>	1990 1992 1994 1999 2000 2004	10.4 12.0 10.6 1.8 1.8 6.3	Agricultural. Development in Kassala Irrigation ( Northern States) Agricultural Services (White Nile State) Rural Development. ( North Kordofan) Rural Development. ( Southern Kordofan) Rural Development (Southern Kordofan)
<b>2-OPEC</b>	1989 1990 1991 1994 1994 2000 2003 2004	10.0 7.0 10.0 13.7 3.9 3.0 1.7 1.3	Commodity  " " " " Agricultural. Development (Northern States) National electricity network Rehabilitation of Rossairs dam Rossairs dam
<b>3- ADB &amp; ADF</b>	1990 1991 1991 1992 1992	12.5 7.2 15.8 25.7 11.0	Rehabilitation of affected areas by flood " " Kenana sugar factory " " " Agricultural Development Toker-Port-Sudan Road. Port.Sudan water, electricity, health..
<b>4-Abu Dhabi Fund</b>	2002	5.4	Marawee dam
<b>5- Arab Fund for Economic &amp; social Development</b>	1990 2001 2001 2002 2003 2003 2003	0.5 " " 8.7 0.2 10.0 1.0	Health eye hospital " " Marawee dam Service, research, customs Drinking water ( Southern States) Affected Qash flood
<b>6-Islamic Development</b>	1989 1990	2.5 6.8	Education rehabilitation of school affected by flood

<b>Bank</b>	1991	0.2	Transp. ( Port Sudan airport)
	1999	4.8	Services ( Damer, Atbara water)
	1996	0.7	Electricity
	1998	7.9	Health
	1999	7.5	Elect ( Rossairis dam ).
	1995	1.2	Services ( rehab. Flood 1988 )
	1999	0.8	Services ( Atbara , Damer water )
	1992	6.7	Irrigation ( Alrahad)
	1994	7.2	Irrigation ( Northern states )
	1994	4.7	Medani-Gorashi road
	1996	7.4	Electricity ( Rossairs dam )
	1996	4.6	Rossairs dam
	1997	2.9	Transport ( Elobied Bara- road)
	1998	2.1	Agriculture. ( veterinary)
	1999	1.5	Transport ( Atbara bridge )
	1999	0.1	Electricity.( Rossairs dam )
	2000	0.1	Education
	2001	8.3	Research
	2000	0.6	Electricity. ( Gaili station )
	2001	10.0	Khartoum State water
2002	28.3	Transport ( railways)	
2004	20.6	Services and Research Highways ,Marawee dam	
<b>7-Saudi Development Fund</b>	1999	25.6	Services
	2002	8.4	Marawee dam
	2004	20.7	' ' ' ' ' And highways
<b>8-Kuwait fund</b>	2002	6.4	Marawee dam
	2004	13.8	Highways
<b>9- Libya</b>	1990	233.5	Oil
	1992	67.9	Oil
	1992	13.0	Cash loan to support BOS
	1993	10.0	” ” ”
	1993	25.0	” ” ”
<b>10- Oman</b>	2002	29.3	Marawee dam
	2004	53.9	“ ” ’ And highways
<b>11- Qatar</b>	2002	15.0	Marawee dam
<b>12- Denmark</b>	89-1991	45.3	Different
<b>13-Italy</b>	1989	1.2	Services
	1989	0.7	Health

	1989	0.8	Electricity
	1991	3.3	Drinking water (North & central states)
	1992	1.9	Rural development
	1989	8.5	Rehabilitation. ( transport )
	1989	2.5	Rehabilitation. ( flood )
	1989	1.8	Rehabilitation. ( southern states )
	1989	2.0	Agricultural Development.
<b>14- Ireland</b>	90 - 1992	4.0	Water and health
<b>15- Japan</b>	89- 1993	11.9	Cash loan + Rabak Jabalain road
	91 - 1993	12.5	Education + health
<b>16- Malaysia</b>	92 - 1999	256.0	Cash loan
	92 - 1999	34.0	Commodity
<b>17- S. Korea</b>	91 - 1992	18.5	
	1992	4.5	Agriculture
<b>18- Indonesia</b>	1993	36.8	Electricity and drinking water
<b>19- Pakistan</b>	1993	10.0	Electricity and railways
<b>20- W. ermany</b>	89 - 1990	24.0	Khartoum - Rabak road , water( Darfur)
<b>21- Netherlands</b>	89 - 1997	5.3	Agriculture. ( Alnihod ) water( Darfur)
<b>22- Finland</b>	1989	14.8	Agriculture and electricity. ( Eastern States )

<b>23-China</b>	1994	0.6	Poverty reduction
	1994	0.3	Ministry of External Affairs building
	1995	17.6	Mining & gold
	1995	3.5	White Nile bridge
	1997	15.5	Agriculture ( Sundus )
	1997	4.6	Agriculture ( Kordfan )
	1998	6.6	Agriculture ( White Nile )
	1999	0.9	Services ( Friendship hall )
	1999	4.5	Water Kordfan
	1999	0.2	Health ( Friendship hospital )
	1999	11.7	Agriculture
	1999	319.0	Khartoum refinery
	2000	11.0	Irrigation
	2000	12.3	Electricity
	2001	9.3	Agriculture ( irrigation equipment )
	2001	49.0	Electricity ( AlGaili station )
	2002	38.6	Defence ( equipment )
	2002	16.7	Defence ( marine )
	2003	3.0	Khartoum electricity
	2003	41.1	Defence Air force
	2003	106.0	Defence ( equipment )
	2003	10.0	Water
	۲۰۰۳	65.0	Technical Assistance
۲۰۰۴	6.6	Khartoum State electricity	
<b>24-India</b>	۲۰۰۴	3.5	Railways

Source: Bank of Sudan annual reports (various)

## Appendix

### Current Account deficit to GDP & Debt services to Exports 1989-2004

year	Current Account deficit as % of GDP	External Debt services to Exports %
1989	6	17.0
1990	16	2.5
1991	7.3	8.1
1992	8.2	13.7
1993	6.1	6.6
1994	8.6	6.0
1995	6.4	6.0
1996	3.3	7.0
1997	2.6	10.8
1998	2.4	7.1
1999	3.0	8.9
2000	3.4	7.5
2001	4.3	6.2
2002	6.1	7.5
2003	5.9	7.3
2004	8.7	5.8

Source: Bank of Sudan annual reports (various)

**Appendix**  
**Domestic Saving and Investment**  
**As Ratios of the GDP**

year	<b>S/GDP</b>	<b>I/GDP</b>
	%	%
1989	4.2	13
1990	1.5	9
1991	2.6	13
1992	12.2	17
1993	7.8	20
1994	4.8	20
1995	10.0	14
1996	-2.6	14
1997	-0.9	17
1998	5.9	23
1999	3.8	16
2000	-2.9	18
2001	4.9	18
2002	3.9	24
2003	4.0	21
2004	5.0	19

Source: Central Bureau of Statistics reports

**Appendix**  
**Major Economic Ratios of Sudan**

year	Fiscal deficit as % of GDP	Ms%	Inflation%	Borrowing ls billion
1989	0.9	52	74.0	7.5
1990	8.32	25	67.3	N.A
1991	5.3	26	122.2	N.A
1992	13.5	20	119.2	18.7
1993	3.2	70	101.1	34.0
1994	9.1	145	119.9	27.4
1995	0.7	74	68.9	80.5
1996	2.3	34	130.0	32.4
1997	1.2	69	47.0	790.0
1998	0.7	87	17.0	90.0
1999	0.9	25	16.1	120.0
2000	1.3	33	8.0	80.0
2001	1.6	24.7	4.9	1370.0
2002	1.2	30.3	7.0	1149.0
2003	0.7	30.3	8.1	83.0
2004	1.6	28.0	8.7	375.0

Source: Bank of Sudan Reports

