

# What is the response of primary surplus to GDP ratio to changes in public debt to GDP ratio in Pakistan? A case of Public Debt Sustainability in Pakistan

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# Introduction

- The current debt dynamics of Pakistan and worsening fiscal operations has resulted in ballooning of public debt (87.2% of GDP) causing hampered economic growth (-0.38%) in FY 2019-20
- This research is primarily intended to assess public debt sustainability in Pakistan with a view to response of primary surplus to growth in GDP

The research will also reflect upon new dimensions of public debt sustainability including;

- i. Fiscal Transparency In Pakistan
- ii. Method Of Recognition Of Assets And Liabilities
- iii. The Institutional Coverage Of Public Debt In Pakistan
- iv. Structural And Cyclical Factors Affecting Public Debt Dynamics
- v. Role Of Treasury Single Account (TSA)
- vi. Effect Of Fiscal Federalism In Pakistan

# Definitions

- **Debt**

Resources that are borrowed and used but owned by others (Oyejide et al. 1985).

- **Public Debt**

Domestic and external debt owed by the government

- **Perception of Public Debt**

The subject has been so maligned that ordinary people believe it is fundamentally bad to raise public debt

- **Sustainable public debt**

Public debt is proclaimed sustainable if finance managers need not; to default or restructure the existing debt or make big policy adjustments and the rate of growth in debt accumulation is not more than the rate of growth in repayment capacity

# Background

- **Developing countries and the problem of debt**
- **Presence of Poverty, high propensity to consume and low savings rate**
- **The problem of Twin Deficit (Budget deficit & Current Account deficit)**
- **Resource-expenditure gap and financing of the gap through domestic and external sources**

# Sustainability of Public Debt in Fiscal Framework

- Debt sustainability gained prominence in the fiscal framework following the financial crises of 2008
- Debt management with respect to contracting of debt, servicing of debt and provision of sovereign guarantees
- The use of proper definition of debt encompassing implicit and explicit avenues of charge on government revenues
- Broad definition of debt and narrow definition of debt w.r.t. budgetary central government and the general government
- Fiscal transparency and coverage of financial statistics

# Sustainability of Public Debt in Fiscal Framework

- The use of specific accounting basis defined by International Public Standards Accounting Board (IPSAS) that includes;

## I. IPSAS (Cash Basis)

## II. IPSAS (Accrual Basis)

According to IMF, a good headline macroeconomic indicator is one which is globally adopted, addresses all the dimensions and provides ground for international comparability.

This, unfortunately is not the case with public sector debt indicators which do not follow an internationally accepted methodology unlike other macroeconomic indicators such are Gross Domestic Product (GDP) or the Consumer Price Index (CPI)

# Perils of Poor Debt Management

The potential hazards of poor debt management includes;

- ❖ Hampered economic growth
- ❖ Decrease in development expenditures

# Non-linearity and Indirect link between debt and growth

- The socio-economic condition and debt profile of the country helps in determining the sustainable level of public debt
- Empirically there is a non-linear relationship between debt and growth
- The indirect channels of non-linear link between debt and growth are ***Debt Overhang, Liquidity constraint, fiscal effect and productivity suppression***

# The Indirect Channels of Non-linear link between Debt and Growth

❖ **Debt Overhang**

❖ **Liquidity Constraint**

❖ **Fiscal Effect**

❖ **productivity suppression**

# Literature Review

- All the economies irrespective of their level of income witnessed increase in public debt and slowdown in economic growth and there exists a threshold beyond which growth prospects are severely compromised (Reinhart and Rogoff 2010)
- Herdon et al. (2013) argued that threshold disappears once we change the weighting scheme and correcting for the coding errors.
- Kumar and Woo(2010) claimed to find non-linearity in debt to GDP ratio and that high level of debt leads to slowdown in economic growth

# Literature Review

- Baum et al. (2013) finds 95% debt to GDP ratio beyond which there exists a non-linear relationship between debt and growth
- The debt dynamics for developing countries are different from the developed economies; because of less than optimal level of development in financial markets, difference in degree of openness to the world economies (Frankel and Romer 1999; Levine and Renelt 1992); and different institutions (Acemoglu et al. 2003; Alfaro and Volosovych 2008)

# Literature Review

- Pakistan is a developing country and facing myriad of socio-economic problems on the domestic and international front. The economy replicates the common characteristics of developing economies with structural and cyclical factors contributing to overall fiscal deficit.
- The factors include; Twin deficit, low savings rate, less than optimal development of financial sector, governance issues and structural problems.
- Owing to these factors economy is always under pressure to generate enough resources to defray expenditures.

# Literature Review

- The low tax to GDP ratio and low carrying capacity to impose more taxes, the finance managers of the country resorts to internal and external financing that leads to huge pile-up of debt liabilities. In this scenario, the most important question to answer is how much is too much? And whether the public debt is sustainable or not?
- A law, Fiscal responsibility and debt limitation Act, 2005 was enacted that defines fiscal rules relating to debt and deficit of the general government
- A number of studies conducted in this regard suggests that internal and external liabilities impact GDP growth and a time comes when growth in debt suppresses growth in the GDP

# Literature Review

- A time series study conducted by Arshad et al. (2014) using extended solow growth model and Johnson co-integration technique found that external debt affects growth positively while internal debt has negative implication on growth
- The study conducted by Naeem(2001) confirms the problem of debt overhang in the presence of high level of public external debt that hampers economic growth
- Ayyoub et al. (2014) found a negative relationship between growth and external debt

# Literature Review

- Empirical results of research by Khurram and Attiya (2012) using debt dynamics framework suggests that public debt and external debt of Pakistan is sustainable in few years but unsustainable in many
- Bilquees (2003), research using three Gap model suggests persistent deficits over the extended time period leads to absorption of domestic and external resources if domestic resources are not mobilized and expenditures are not controlled
- Study by Tahir et al. (2009) suggests that twin deficit, higher level of interest payments and exchange rate fluctuation are the core variables that leads to increase in public debt and worsening of debt ratios
- The negative affect of Debt on GDP growth was studied by Fosu (1996) that suggests countries confronting high level of debt suffers 1% of GDP annually but did not come up with specific threshold for GDP.

# Literature Review

- Mahmood et al.(2009) using threshold debt indicators approach suggests that both the public debt and external debt is not sustainable in Pakistan.

# Public debt in Pakistan

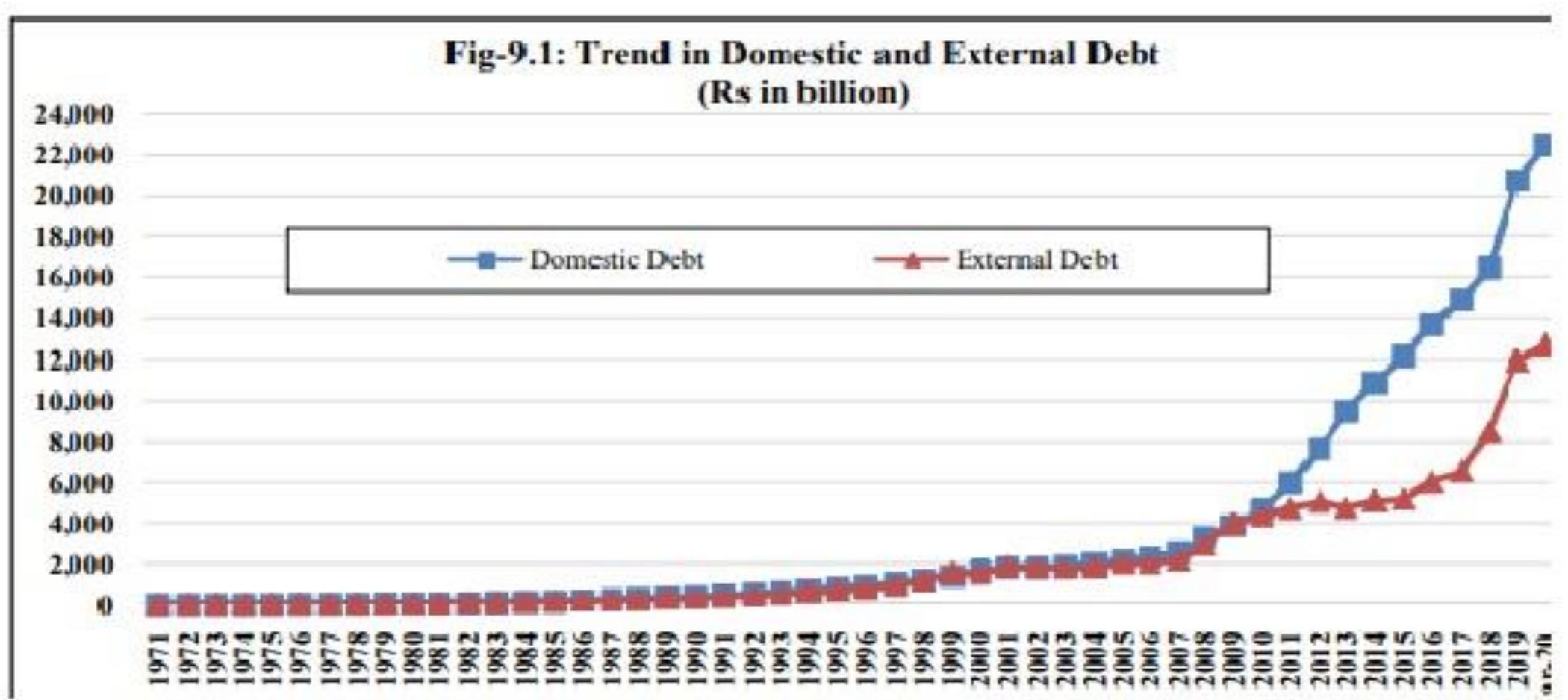
- The reasons for increase stems from both cyclical factors such as War on terror, security related expenditures, power sector losses and losses from public sector enterprises.
- The debt composition of Pakistan shows that most of the debt is raised from domestic sources between year 2008 and 2020.
  - I. Domestic sources PKR 23.2 Trillion (64% of PDL)
  - II. External Sources PKR 13.1 Trillion (36% of PDL)

# Total Public Debt Liabilities of Pakistan 2019-20

(Source: DPCO Publications, M/o Finance, Pakistan)

Table 1 Total Public Debt Liabilities of Pakistan 2019-20		
	June, 2020	
Type of Debt	(PKR Billion)	% of Total
I Domestic Debt	23,281	64%
II External Debt	13,116	36%
III Total Public Debt	<b>36,397</b>	<b>100%</b>

# Public debt trend of Pakistan



Source: Economic survey of Pakistan, Ministry of Finance

Total Public Debt of Pakistan (1971-2020)						
Year	(PKR Billion)			DD%	ED%	TDL
	Domestic Debt	External Debt	Total Debt			
1971	14	16	30	47%	53%	100%
1972	17	38	55	31%	69%	100%
1973	20	40	60	33%	67%	100%
1974	19	44	62	31%	71%	102%
1975	23	48	70	33%	69%	101%
1976	28	57	85	33%	67%	100%
1977	34	63	97	35%	65%	100%
1978	41	71	112	37%	63%	100%
1979	52	77	130	40%	59%	99%
1980	60	86	146	41%	59%	100%
1981	58	87	145	40%	60%	100%
1982	81	107	189	43%	57%	99%
1983	104	123	227	46%	54%	100%
1984	125	132	257	49%	51%	100%
1985	153	156	309	50%	50%	100%
1986	203	187	390	52%	48%	100%
1987	248	209	458	54%	46%	100%
1988	290	233	523	55%	45%	100%
1989	333	300	634	53%	47%	100%
1990	381	330	711	54%	46%	100%
1991	448	377	825	54%	46%	100%
1992	532	437	969	55%	45%	100%
1993	617	519	1135	54%	46%	100%

1994	716	624	1340	53%	47%	100%
1995	809	688	1497	54%	46%	100%
1996	920	784	1704	54%	46%	100%
1997	1056	939	1995	53%	47%	100%
1998	1199	1193	2392	50%	50%	100%
1999	1389	1557	2946	47%	53%	100%
2000	1645	1527	3172	52%	48%	100%
2001	1799	1885	3684	49%	51%	100%
2002	1775	1862	3636	49%	51%	100%
2003	1895	1800	3694	51%	49%	100%
2004	2028	1839	3866	52%	48%	100%
2005	2178	2034	4211	52%	48%	100%
2006	2322	2038	4359	53%	47%	100%
2007	2601	2201	4802	54%	46%	100%
2008	3274	2853	6127	53%	47%	100%
2009	3860	3871	7731	50%	50%	100%
2010	4653	4357	9010	52%	48%	100%
2011	6014	4756	10771	56%	44%	100%
2012	7638	5059	12697	60%	40%	100%
2013	9520	4771	14292	67%	33%	100%
2014	10907	5085	15991	68%	32%	100%
2015	12193	5188	17380	70%	30%	100%
2016	13626	6051	19677	69%	31%	100%
2017	14849	6559	21409	69%	31%	100%
2018	16416	8537	24953	66%	34%	100%
2019	20732	11976	32708	63%	37%	100%
2020	23281	13116	36397	64%	36%	100%

Source: Economic Survey of Pakistan, Ministry of Finance

# Public Debt Contributors in Pakistan

The public debt situation of Pakistan is not very encouraging. The country debt to GDP in 1980 was 54.4% which increased to a high of 87.2 % in year 2020. The main contributors are listed below;

- ❑ Fiscal Mismanagement
- ❑ Fiscal Federalism
- ❑ Poor Decision Support Systems
- ❑ Use of IPSAS Cash instead of IPSAS Accrual accounting standard
- ❑ Generous Pension System
- ❑ Low Tax To GDP Ratio
- ❑ Low Savings Rate
- ❑ Lack Of Consolidated Fiscal Information (TSA)
- ❑ Decrease In Foreign Direct Investment, Grants And Portfolio Investment
- ❑ Lack of Transparency in Fiscal statistics
- ❑ Power sector losses
- ❑ Public Sector Enterprises accumulated losses
- ❑ Huge Current account deficit
- ❑ Huge Defense Spending Especially On War On Terrorism

# Public Debt of Pakistan

- The development activities, internal security situation, current account deficit and poor fiscal management were the main drivers of growth in debt and debt liabilities of Pakistan between 2008-2020
- The average annual growth in public debt between 2013 and 2018 is 11.3%
- The domestic borrowings till June, 2020 have increased to PKR 23.2 trillion while external debt has soared to PKR 13.1 trillion
- Average cost of domestic debt servicing is 7.9% while external debt costs 2.9%
- 36% of the public debt is denominated in foreign currencies with average maturity of 08 years, while share of domestic public debt is 64% of PDL

# Current Public Debt Profile of Pakistan

- The public debt profile has tilted towards long-term loans and market players have started investing in long-term securities who were previously averse of investing in long-term government securities
- The fiscal deficit stood at **8.1%** of the GDP in June, 2020
- The ratio of tax to GDP stands at staggering low of 9.6% in 2020

# Domestic Debt Profile of Pakistan 2019-20

(Source: DPCO Publications, M/o Finance, Pakistan)

**Table.1 :Composition of Domestic Debt (Instruments)**

	June, 2020	
	PKR(Billions)	USD(Billions)
<b>I+II Funded Debt</b>	<b>19,608</b>	<b>116</b>
<b>I Permanent Debt</b>	<b>14,030</b>	<b>83</b>
Pakistan investment bonds	12,886	77
Prize bonds	734	4
Bai Muajjal/Sukuk Islamic Bonds	399	2
Others	11	-
<b>II Floating Debt</b>	<b>5,578</b>	<b>33</b>
Treasury Bills	5,578	33
<b>III Unfunded debt</b>	<b>3,672</b>	<b>22</b>
National Savings Schemes	3,523	21
Others	149	1
<b>I+II+III Total domestic debt</b>	<b>23,280</b>	<b>138</b>

# Domestic Debt Profile of Pakistan 2019-20

(Source: DPCO Publications, M/o Finance, Pakistan)

Table 2. Composition of Domestic Debt (Creditors)

	June, 2020	
	PKR(Billions)	% of total
<b>I Government Securities (Institutional investors/Banks)</b>	<b>18,863</b>	<b>81</b>
Scheduled bank investment	9,398	40
State Bank of Pakistan investment	7,191	31
Non-Banks Investment	2,274	10
<b>II Non-Bank Debt</b>	<b>4,418</b>	<b>19</b>
National Savings Schemes (Prize bonds included)	4,257	18
Others (Government Provident fund, PLI)	161	1
<b>I+II Total Domestic Debt</b>	<b>23,281</b>	<b>100</b>

# Domestic Debt Profile of Pakistan 2019-20

(Source: DPCO Publications, M/o Finance, Pakistan)

Table 3. Maturity profile of domestic debt in Pakistan

	June, 2020	
	PKR(Billions)	% of Total
<b>I Short-term Debt (Less than 01 year)</b>	<b>7,182</b>	<b>31</b>
Treasury bills	5,578	24
Long-term debt (retiring in less than 01 year)	1,604	7
<b>II long-term debt (Greater than 01 year)</b>	<b>16,099</b>	<b>69</b>
<b>I+II Total Domestic Debt</b>	<b>23,281</b>	<b>100</b>

# Domestic Debt Profile of Pakistan 2019-20

(Source: DPCO Publications, M/o Finance, Pakistan)

Table 4. Interest rate composition of domestic debt in Pakistan

	June, 2020	
	PKR(Billions)	% of Total
<b>I Floating rate</b>	<b>12,379</b>	<b>53</b>
Treasury bills	5,578	24
Floating rate bonds	6,801	29
<b>II Fixed rate</b>	<b>10,902</b>	<b>47</b>
<b>I+II Total Domestic Debt</b>	<b>23,281</b>	<b>100</b>

# External Debt Profile of Pakistan 2019-20

(Source: DPCO Publications, M/o Finance, Pakistan)

Table 5 Composition of External Public Debt			
	June, 2020		
	PKR (Billion)	USD (Million)	% of total
<b>External Public debt (I+II+III)</b>	<b>13,117</b>	<b>77,988</b>	<b>100%</b>
<b>I Long-term government debt</b>	<b>11,589</b>	<b>68,908</b>	<b>88%</b>
Paris club loans	1,837	10,924	14%
Multilateral	5,196	30,898	40%
Other bilateral	2,258	13,428	17%
Euro/Sukuk bonds	891	5,300	7%
Commercial loans/credits	1,381	8,210	11%
others	26	148	0.2%
<b>II Short-term external public debt</b>	<b>237</b>	<b>1,400</b>	<b>2%</b>
Multilateral	138	814	1%
Local currency securities (T-bills)	99	586	1%
<b>III IMF</b>	<b>1,291</b>	<b>7,680</b>	<b>10%</b>
Central/Federal Government	476	2,833	4%
Central bank	815	4,847	6%

# External Debt Profile of Pakistan 2019-20

(Source: DPCO Publications, M/o Finance, Pakistan)

Table 5 Source Wise External Debt		
	June, 2020	
	\$ Million	% of Total
<b>I Multilateral</b>	<b>39,392</b>	<b>51%</b>
World Bank	16,184	21%
Asian Development Bank	12,741	16%
IMF	7,680	10%
Others	2,787	4%
<b>II Bilateral</b>	<b>24,352</b>	<b>31%</b>
Paris Club	10,924	14%
Non-Paris club	13,428	17%
<b>III Commercial</b>	<b>14,244</b>	<b>18%</b>
Eurobonds/Pakistan international Sukuk bond	5,300	7%
Loans from foreign commercial banks/others	8,944	11%
<b>I+II+III External Debt Liabilities</b>	<b>77,988</b>	<b>100%</b>

# Significance of study

- Public debt of Pakistan stands high at **87.2%** of the GDP violating the Fiscal Responsibility and Debt Limitation Act 2005.
- The figure recorded is highest in the last 15 to 20 years exposing economy of the country to many risks. The gravity can be learnt from analysis of the Ministry of Finance that suggests PKR 100.0 Billion increase in public debt with 1% increase in interest rate and if Rupee depreciates by Rs. 1.0, External public stock increase by PKR 70.0 billion.
- Debt servicing consumed **57.5%** of total revenues of the government in 2019
- Pakistan is a growing country with high growth ambitions that demand investment in infrastructure and social sectors.
- Pakistan's investment to GDP has increased during the last 07 years due to development activities which were mainly funded through domestic borrowing and external borrowing causing substantial increase in public debt of the country

# Research Objectives

The literature review of Public debt sustainability in Pakistan generates the following gaps to be explored by researchers;

- I. Response Of Primary Surplus To Increase In Public Debt Both Being Relative To GDP
- II. The Institutional Coverage Of Fiscal Statistics In Pakistan
- III. Assessing Cyclical And Structural Nature Of Growth In Public Debt
- IV. Fiscal Transparency In Pakistan To Assess Fiscal Sustainability
- V. Effects Of Fiscal Federalism On Public Debt In Pakistan
- VI. The Role Of Treasury Single Account (TSA)

However, our focus area will be sustainability of Public debt in Pakistan

# Data & Methodology

- **Data:** Secondary data on public debt liabilities in Pakistan will be used that will cover both domestic debt and external debt liabilities
- **Data availability:** 1971-2020
- **Data Source:-** Economic Survey of Pakistan, Handbook of fiscal statistics, State Bank of Pakistan, WEO Indicators etc
- **Methodology:** Qualitative research method of SWOT analysis technique will be used

## Future Plan

I intend to do SWOT analysis of public debt in Pakistan

# Data Sources

- Economic Survey of Pakistan, Finance Division.
- Debt Policy Coordination office, Finance Division
- Research & Statistics Wing, Economic Affairs Division
- National Savings, Finance Division
- National Accounts tables, Statistics Division
- Annual report, State Bank of Pakistan
- Handbook of Statistics on Pakistan Economy (2015), SBP
- International Financial Statistics, IMF
- World Bank Economic Indicators
- National summary data page, E-GDDS, Pakistan

# References

- Afonso, A. (2005) "Fiscal sustainability: the unpleasant European case" *Finanzarchiv* 61, 19-44.
- Oyejide T.A., Soyede A. and M.O. Kayode (1985): *Nigeria and the IMF*. Heinemann Educational book Nig. Ltd. Ibadan Pp. 9.
- Arbatli, E., and Escolano, J. "Fiscal Transparency, Fiscal Performance and Credit Ratings", 2012, IMF Working Paper No. 12/156 (Washington: International Monetary Fund)
- Alt, James E. and David Dreyer Lassen. 2006a. "Fiscal Transparency, Political Parties and Debt in OECD Countries." *European Economic Review*, forthcoming.
- Fox, Justin. 2005. "Government Transparency and Policymaking". Working paper, Yale University, March.
- Carmen M. Reinhart & Kenneth S. Rogoff, 2010. "Growth in a Time of Debt," *American Economic Review*, American Economic Association, vol. 100(2), pages 573-78
- Kumar, M. S., and Woo, J. (2010). *Public Debt and Growth*. IMF Working Paper No. 10/174. Washington, DC: International Monetary Fund.

# References

- Bilquees, F. (2003) 'An Analysis of Fiscal Deficits, Debt Accumulation and Debt Instability' the Pakistan Development Review, 42:3, pp. 177-195.
- Ahmad, E. (1999). Retiring public debt through privatization. Pakistan Journal of Applied Economics, 15(1-2)
- Pasha, H. A. and A. Ghaus, Sustainability of Public Debt in Pakistan. A Conference Paper No. 21.
- 
- Tahir, P. (1998), The debt of the nation. The Pakistan Development Review, Volume 37(4), Part II, pp. 331-353.
- Anwer, T. (2000), Unsustainable debt burden and poverty in Pakistan. Discussion Paper No. 2002/53, United Nations University, WIDER
- Ahmad, E. (2000). Getting out of the debt trap: Simulating debt retirement strategies for Pakistan (Occasional Paper No. 12). Islamabad, Pakistan: LEAD.
- Burney, N. (1988). Determinants of debt problem in Pakistan and its debt servicing capacity. Pakistan Development Review, 27(4), 805–816.
- Ahmad, E. (2000). Getting out of the debt trap: Simulating debt retirement strategies for Pakistan (Occasional Paper No. 12). Islamabad, Pakistan: LEAD.
- Government of Pakistan. (n.d.). Pakistan economic survey (Various issues). Islamabad: Economic Adviser's Wing
- State Bank of Pakistan. (n.d.). Annual report (Various issues). Karachi.
- Government of Pakistan. (n.d.). Pakistan Fiscal operation (Various issues). Islamabad: Budget wing

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