

# Measuring the Sufficient Debt Sustainability Condition in Pakistan

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# Introduction

Debt



Wisely



Welfare

Debt



Irresponsibly



Adverse

# Introduction



Domestic and  
external debt  
accumulation  
and debt  
servicing



Disturb the  
poor  
adversely

# Debt Burden - Example

## Greece

- 100 Percent in 2009
- 177 percent in 2014

## Pakistan

- 100 Percent in 1999
- 56 Percent in 2005



# Debt Sustainability

Ability of a country to meet its current and future debt servicing obligations without recourse to debt rescheduling or accumulation of arrears and without compromising growth

# Methodology

*Both approaches involve Budget Constraint*

## Accounting Approach

- Derive necessary condition [Mahmood and Rauf]  $r > g$  or  $r < g$
- Derive Sufficient Condition

## Present Value Approach

- Econometric Estimation (Hamilton and Flavin)
- Non-Ponzi Game Condition

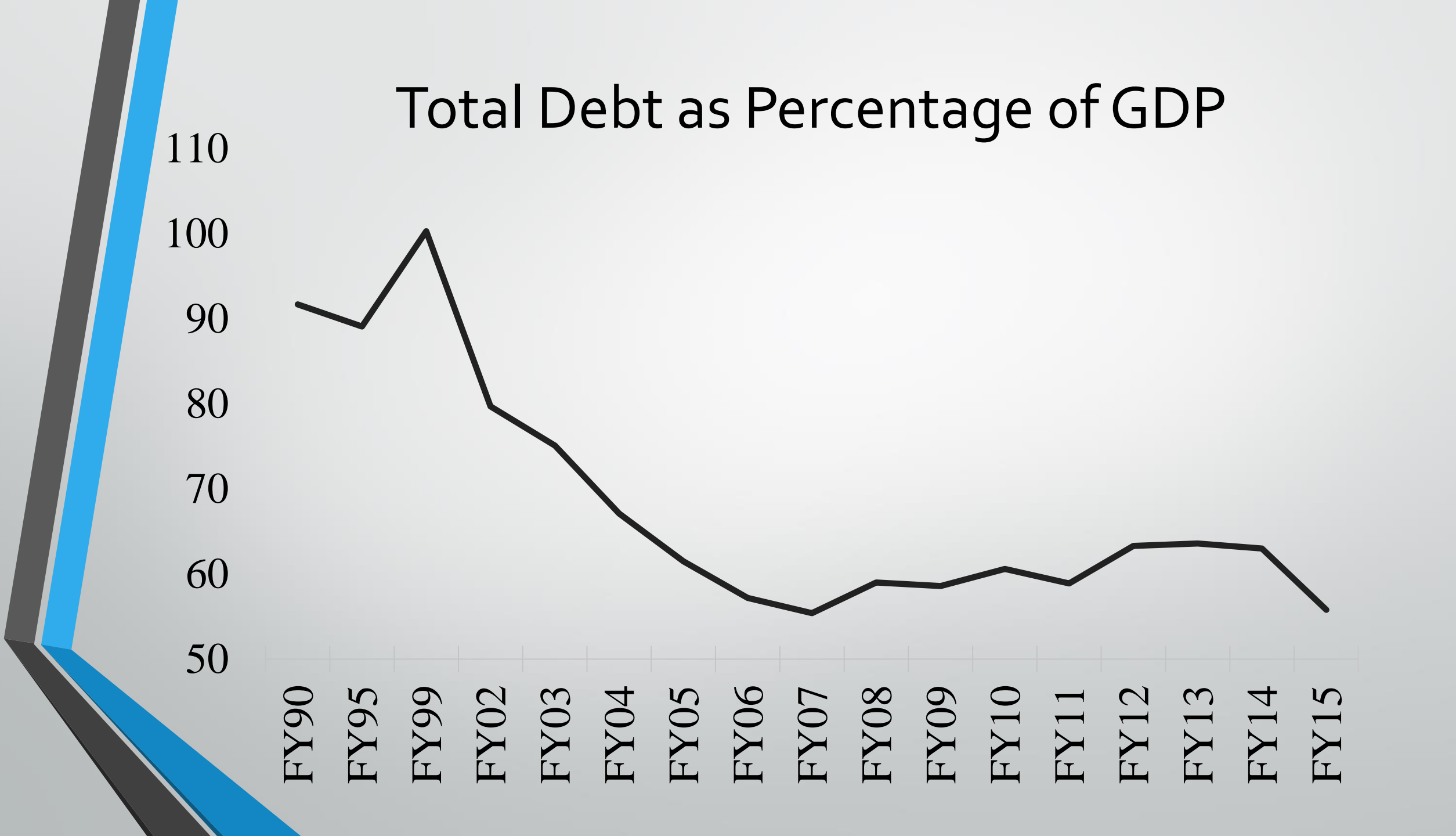
# Sustainable Debt Thresholds

Institutions	PV Debt/ Exports	PV Debt/ Revenue	Additional Criteria
HIPC (2004)	150	250	Debt servicing / Exports ratio is 15-20%
DRI	140	151	Debt Servicing / Exports ratio is 12% and Debt Servicing / Revenue ratio is 13 %
IMF	180	201	PV/GDP is 42% and Debt Servicing/Revenue is 30%
World Bank (2004)	190	189	[PV/Exports is 220% and PV/GNI is 80 %]* [Also Debt stock/GDP is 50%, Debt stock/ Exports is 275%, Debt Servicing/Exports is 30%]**
CIPA Index	Poor/medium/strong	Poor/medium/Strong	Debt servicing as 15, 20 and 25 % of exports for poor, medium and strong institutions
	100/150/200	200/250/300	Debt servicing as 25, 30 and 35 % of revenue for poor, medium and strong institutions

# Total Debt as Percentage of GDP

110  
100  
90  
80  
70  
60  
50

FY90 FY95 FY99 FY02 FY03 FY04 FY05 FY06 FY07 FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15



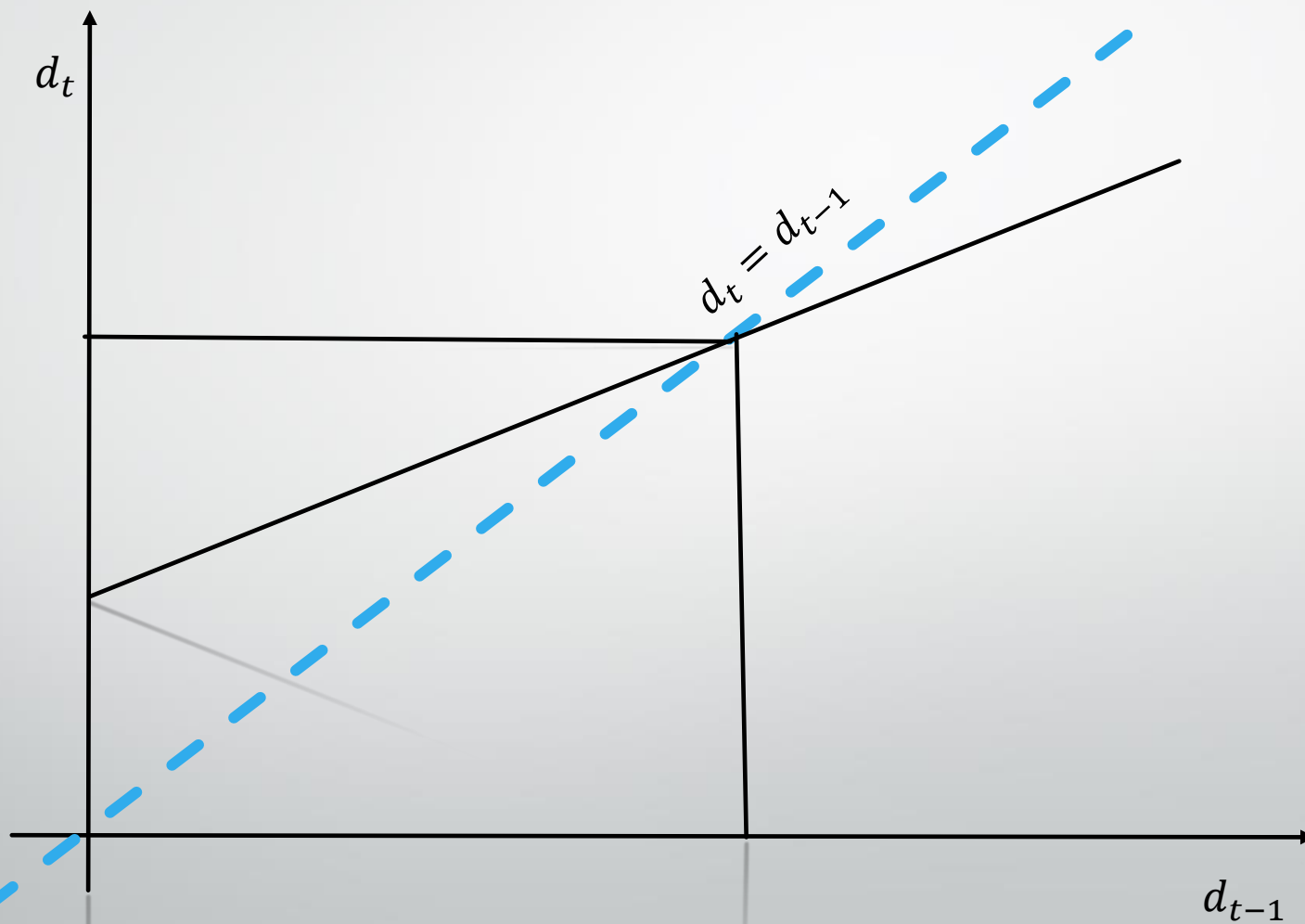


# Budget Accounting

- $G_t + i_t D_{t-1} = T_t + (D_t - D_{t-1}) + (M_t - M_{t-1}) - \textit{Privatisation}$
- $D_t = D_{t-1} + (B_t + i D_{t-1}) - \Delta M_t - \textit{Privatisation}$
- $D_t = D_{t-1} + (B_t + i D_{t-1})$

# Percentage of GDP

$$d_t = d_{t-1} + (b_t + id_{t-1})$$



# What's Fixed

- Debt to GDP ratio is fixed at 60 percent
- Interest rate on debt remains the same
- Interest payments as percentage of GDP remains same

## At 60 percent of GDP

$b=2\%$

- Growth Rate: 10.6 %
- Debt in 2025: 2.74 times

$b=2\%$ ,  $cab=1\%$

- Growth Rate: 12.26%
- Debt in 2025: 3.18 times

$b=2\%$ ,  $cab=2\%$

- Growth Rate: 13.93%
- Debt in 2025: 3.68 times

$b=2\%$ ,  $cab=3\%$

- Growth Rate: 15.60%
- Debt in 2025 : 4.26 times

## At 60 percent of GDP

$b=1\%$

- Growth Rate: 8.93 %
- Debt in 2025: 2.35 times

$b=1\%$ ,  $cab=1\%$

- Growth Rate: 10.6%
- Debt in 2025: 2.74 times

$b=1\%$ ,  $cab=2\%$

- Growth Rate: 12.26%
- Debt in 2025: 3.18 times

$b=1\%$ ,  $cab=3\%$

- Growth Rate: 13.93%
- Debt in 2025 : 3.68 times

## At 60 percent of GDP

$b=0\%$

- Growth Rate: 7.26 %
- Debt in 2025: 2.01 times

$b=0\%$ ,  $cab=1\%$

- Growth Rate: 8.93%
- Debt in 2025: 2.35 times

$b=0\%$ ,  $cab=2\%$

- Growth Rate: 10.6%
- Debt in 2025: 2.74 times

$b=0\%$ ,  $cab=3\%$

- Growth Rate: 12.26%
- Debt in 2025 : 3.18 times

## At 60 percent of GDP

FD=5%

- Growth Rate: 9.03%
- Debt in 2025: 2.37 times

FD=5 %, cab=1%

- Growth Rate: 10.7%
- Debt in 2025: 2.76 times

FD=5 %, cab=2%

- Growth Rate: 12.36%
- Debt in 2025: 3.20 times

FD=5 %, cab=3%

- Growth Rate: 14.03%
- Debt in 2025 : 3.71 times

## At 60 percent of GDP

FD=4%

- Growth Rate: 7.16%
- Debt in 2025: 1.99 times

FD=4 %, cab=1%

- Growth Rate: 8.68%
- Debt in 2025: 2.32 times

FD=4 %, cab=2%

- Growth Rate: 10.11%
- Debt in 2025: 2.70 times

FD=4 %, cab=3%

- Growth Rate: 11.46%
- Debt in 2025 : 3.14 times



## At 60 percent of GDP

FD=3%

- Growth Rate: 5.60%
- Debt in 2025: 1.72 times

FD=3 %, cab=1%

- Growth Rate: 7.26%
- Debt in 2025: 2.01 times

FD=3 %, cab=2%

- Growth Rate: 8.79%
- Debt in 2025: 2.28 times

FD=3 %, cab=3%

- Growth Rate: 10.6%
- Debt in 2025 : 2.73 times

# Conclusions

- Even though we are keeping debt at sustainable level according to GDP but it is increasing in nominal terms – Don't be scared.
- We don't need very higher level of GDP to keep the debt at sustainable level
- Reduction in interest payment which can only be done through debt retirement would give fiscal space to invest in productive ventures.
- Growth is the remedy to reduce debt and get higher growth
- As far as long run debt accumulation is concerned reduction in debt gradually is better than retiring the debt.
- Gradual reduction in debt through debt retirement give us better fiscal space as well as opportunities for growth