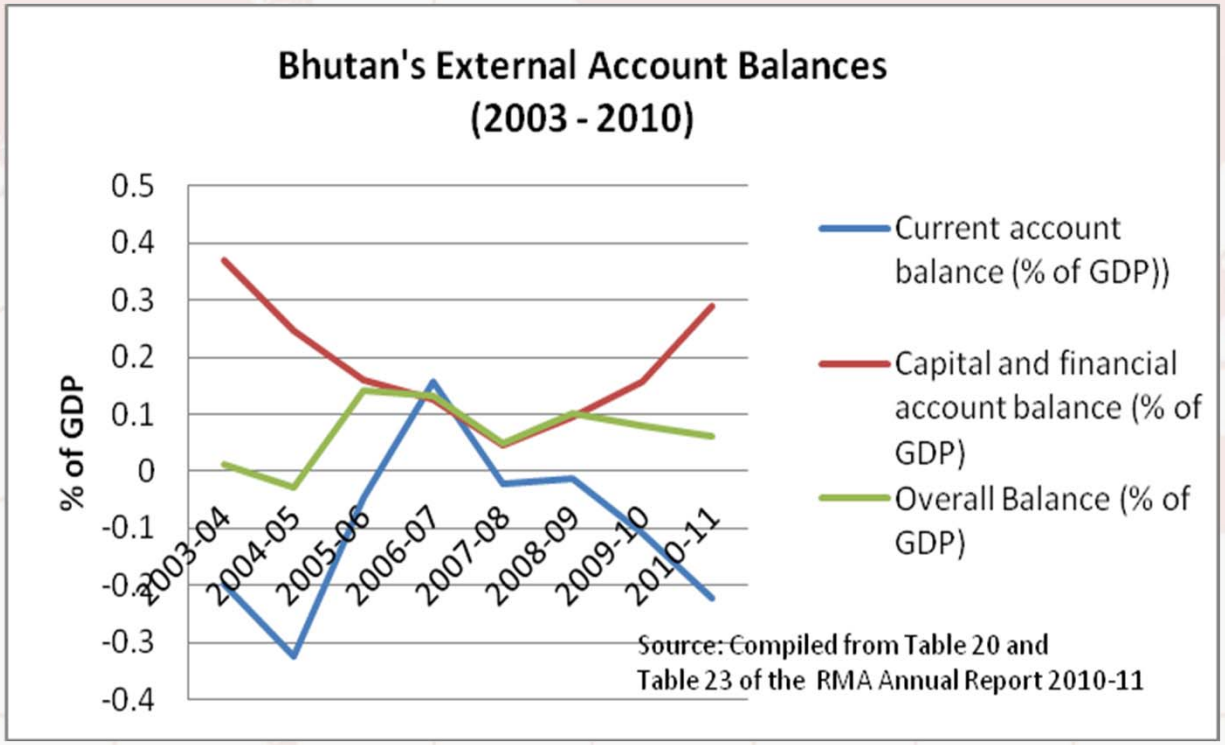
Understanding the Rupee Shortfall:
A Macroeconomic Policy Challenge for Bhutan and the Way Forward

Hamid Rashid, *Ph.D.*
Senior Adviser for Macroeconomic Policy
UN Department of Economic and Social Affairs, New York

The Rupee Shortfall Not an Economic Crisis!

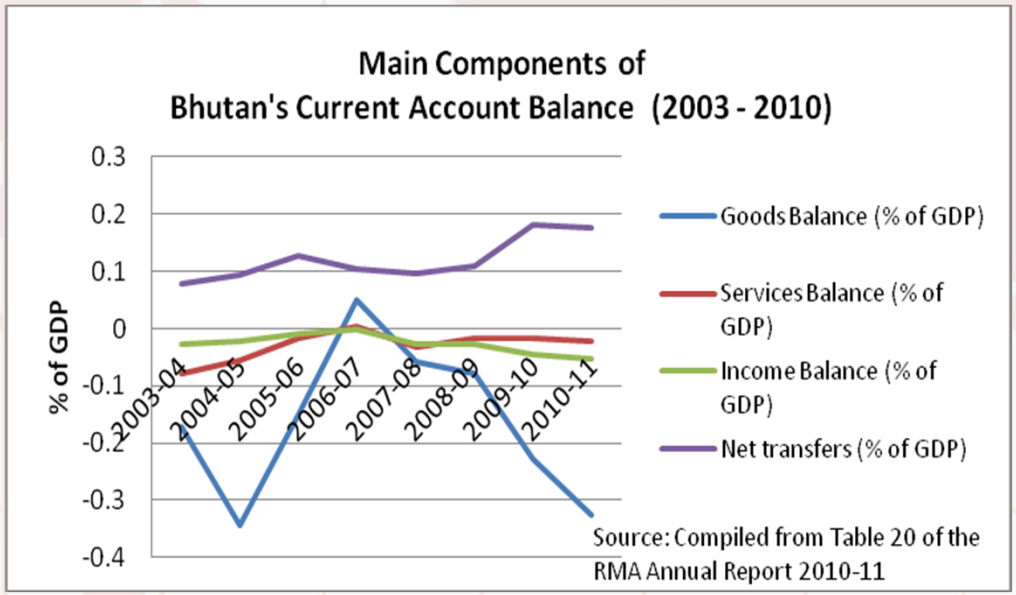
- The shortfall in itself does not constitute an economic crisis
- It does not entail a BOP crisis
  - The current account deficit is large but likely to be temporary
  - Much of the deficit can be explained by hydropower related capital goods imports – without hydropower imports during 2010-11, CA deficit would have been under 6% of GDP – still large but not unsustainable
  - Surge in private imports explains the remaining CA deficit – if credit growth was contained, CA deficit would have been around 3% of GDP
  - Overall balance is positive
- It is not a currency crisis but rather a currency mismatch in reserves and obligations
- Bhutan's international reserves position is strong – reserves grew at an annual rate of 13.6% during 2001-10 against an average GDP growth rate of 8.48% during this period
- Debt coverage of international reserves increased from 75.4% in 2001 to 111.6% in 2010 at the onset of the Rupee shortfall

Bhutan's External Account Balances



- Current account imbalance largely coincides with hydropower project construction cycles and other major project undertakings..

Net transfers are important for offsetting current account imbalance

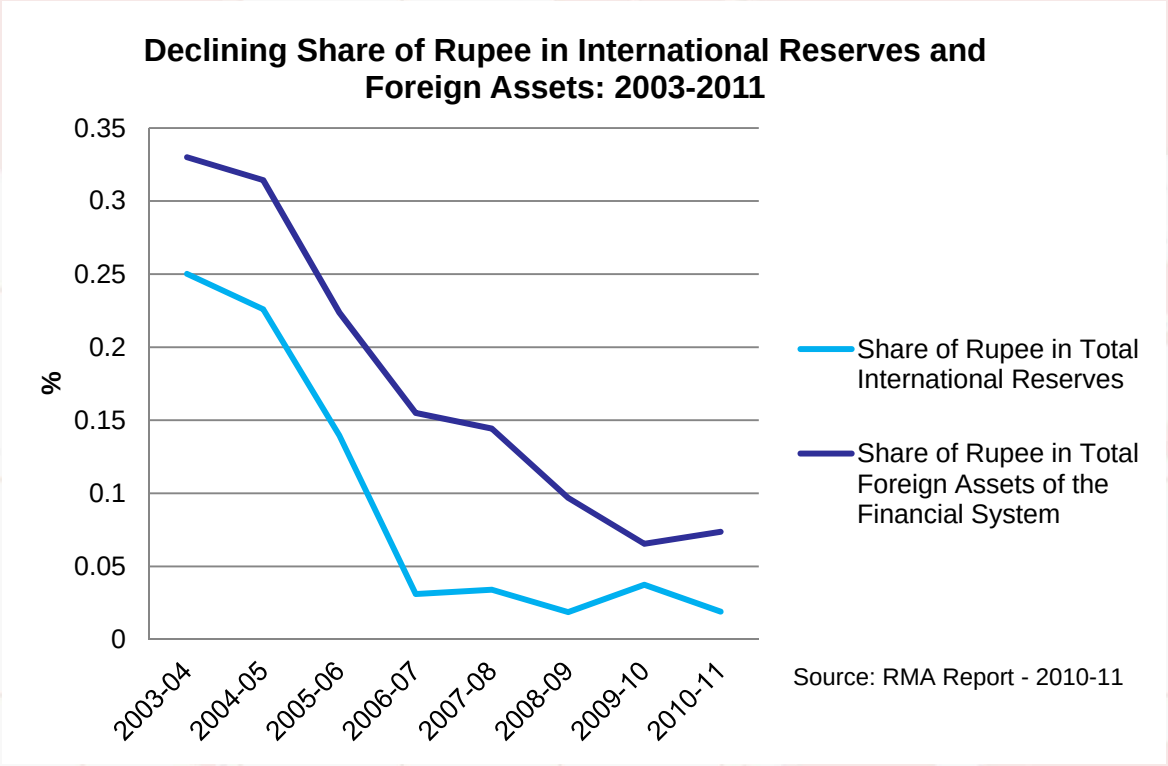


- Net transfers, in terms of budgetary support, are important to offset the CA deficits
- Total budgetary grant was as high as 18.4% of GDP in 2010-11
- Rupee denominated Budgetary grants from India, as percentage of GDP, increased from 8.2% in 2003-04 to 12.8% in 2010-11
- Budget grants from India account for 69.6% of all budgetary support

Why the Rupee Shortfall?

- Current account imbalance with India increased three-fold, from INR -10.9 billion in 2009-10 to INR – 31.4 billion in 2010-11
- Net INR Inflows on current and capital account declined from INR - 4.7 billion (7.65% of GDP) in 2009-10 to INR -13.2 billion (18.2% of GDP) in 2010-11
- Net INR inflows during pervious three years (2006-2009) averaged +10.9% of GDP
- **When INR net inflows were positive during 2006-09, there was no build-up in Rupee denominated reserves**
- While total reserves increased by over 300%, share of Rupee in international reserves fell from 25% in 2003-04 to 1.9% in 2010-11
- Rupee shortfall was exacerbated by rapid money growth (M2) and corresponding credit growth, fuelled by excess liquidity and timing and volume mismatches between Rupee inflows and outflows

Share of Rupee in International Reserves



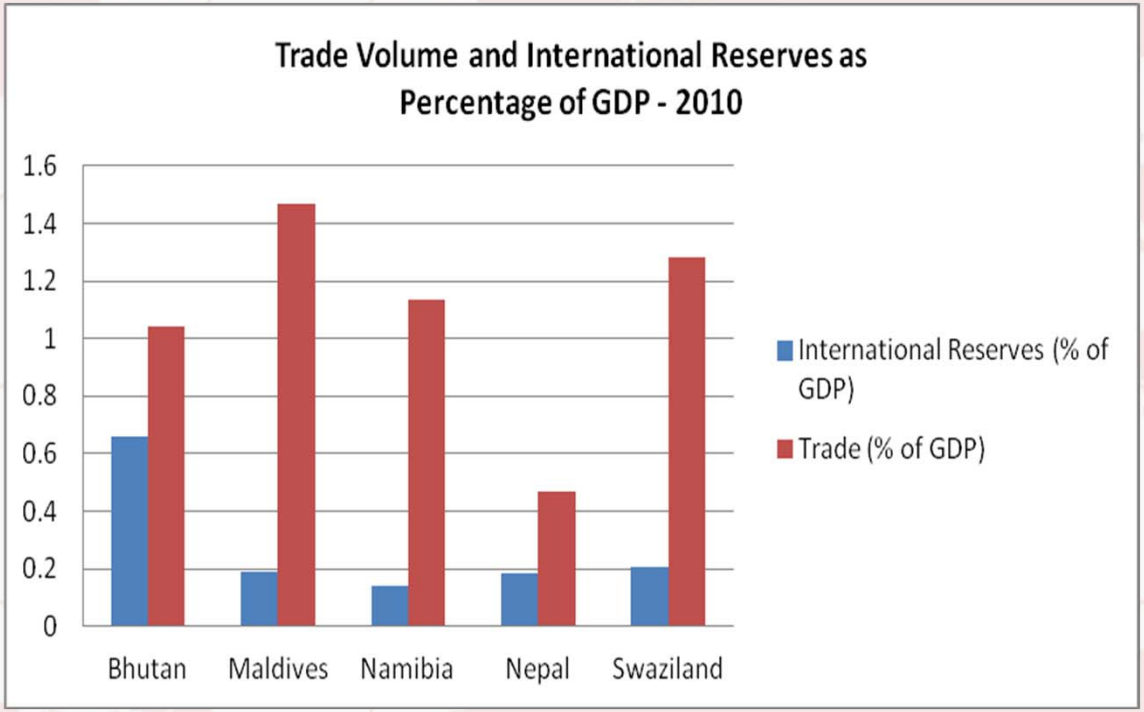
Composition of International Reserves of Other Comparable Countries

	Main Trading Partner	Share of Import from main trading partner	Share of Exports to main trading partner	Share of Main trading partners' currency in Int'l Reserves
Bhutan	India	75%	77%	1.90%
Namibia	South Africa	80%	29%	32.9%
Nepal	India	57.0%	49.0%	31.8%
Swaziland	South Africa	92.9%	45%	60%

Potential Interest Income on Rupee Reserves

If Interest Rate Differential between INR and USD Bonds is	If 30% of International Reserves Held in Indian Rupee during 2006-10	If 35% of International reserves in Indian Rupee during 2006-10
6%	INR 3,536 m	INR 4,125 m
8%	INR 4,715 m	INR 5,501 m

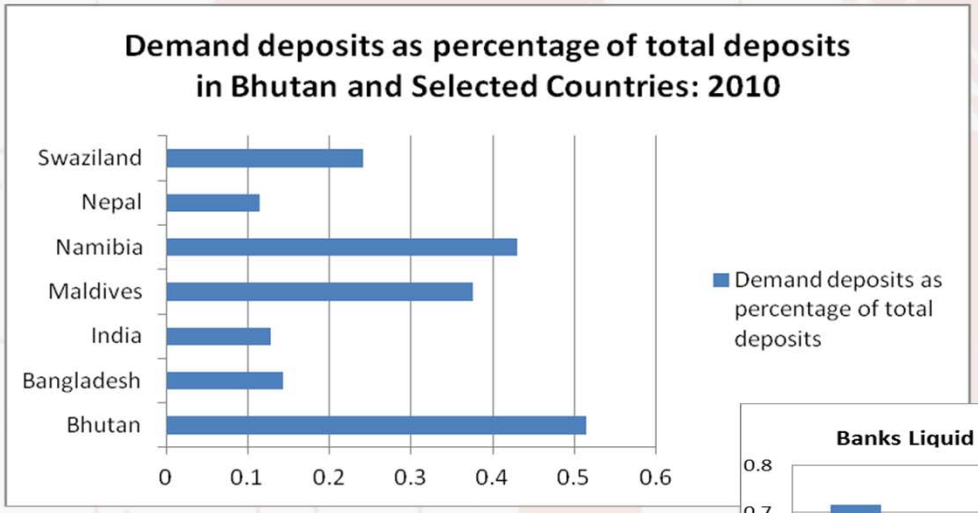
While Rupee reserves fell, Bhutan continued to maintain a very large Reserve Relative to its GDP or Trade Volume

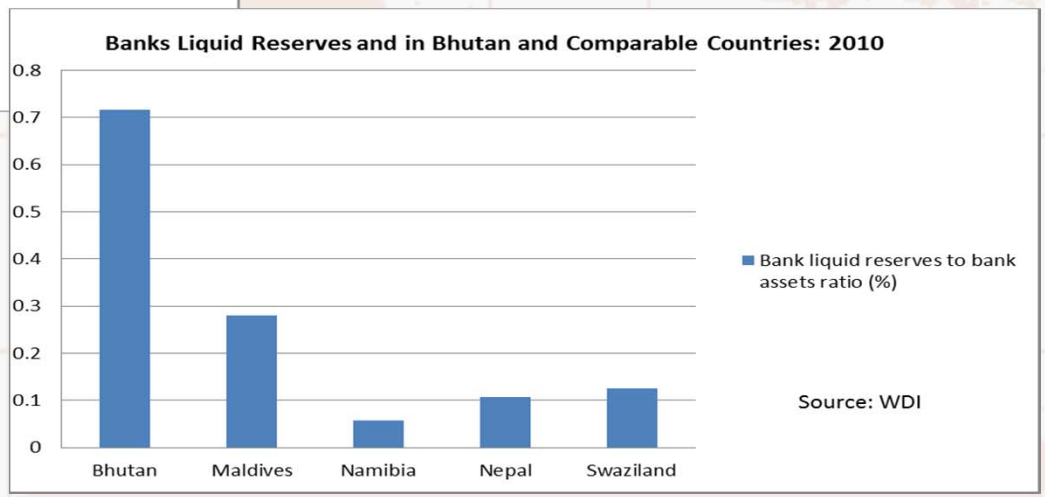


Excess Liquidity and Credit Growth, Amplifying Rupee Demand

- Bhutanese banking sector enjoys one of the highest level of liquid reserves relative to its asset base
- Liquid reserves are mostly demand deposits, which accounted for 51.5% of total deposits in 2010, increasing from 21.5% of total deposits in the banking system in 2001
- Most of these demand deposits belong to government and government-owned entities - government is a net lender to the banking sector.
- Government's total deposits in the banking system rose to as high as Nu 6.9 billion in 2008 (12.8% of GDP), mostly on account of mismatches between inflows and outflows
- Abundance of low-cost demand deposits allowed banks to expand credit, especially short-term credit, to the private sector

Demand Deposits and Liquid Reserves

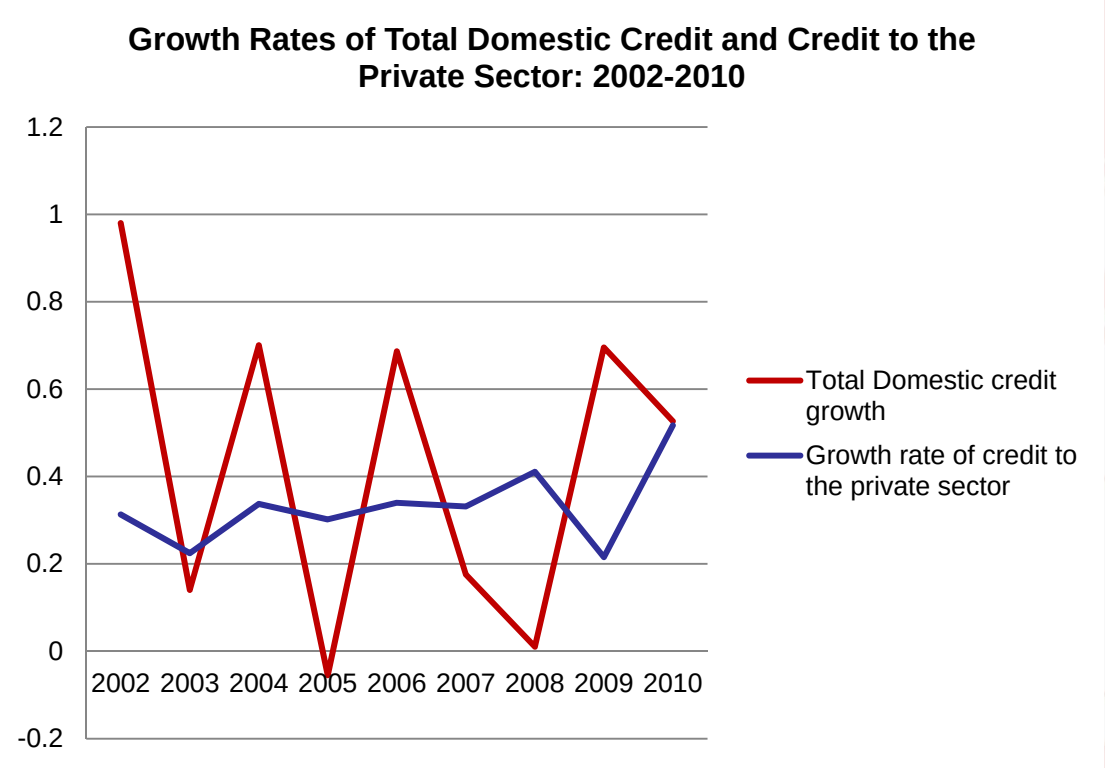




Credit to Private Sector Has Grown Fast, but…

- Average growth rate of private credit was 29.4% during 2001-05 compared to an average growth rate of 36.3% during 2006-10
- Private sector credit growth has been high, but steady and stable
- Growth rate of total credit has been much higher and volatile, mostly because of the net lending position of the government to the banking sector
- When net lending from the government to the banks declined from Nu 6.89 billion to Nu 2.71 billion between 2008 and 2009, it appeared in the data as a credit growth of Nu 4.1 billion between, explaining as much as 50% of the overall credit growth
- There is a clear need to smooth government's net lending position to the banking sector, which is a source of excess liquidity

Growth Rates of Credit



Rupee Inflows and Money Growth Explain the Credit Growth

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Growth rate of Rupee inflows	26.3%	14.4%	10.5%	11.7%	58.0%	11.4%	9.1%	6.0%	30.1%
Growth rate of M2	33.0%	-1.5%	20.6%	11.3%	35.5%	11.6%	12.7%	41.2%	17.0%
Credit growth	98.0%	14.0%	70.0%	-5.5%	68.6%	17.6%	1.0%	69.5%	52.7%

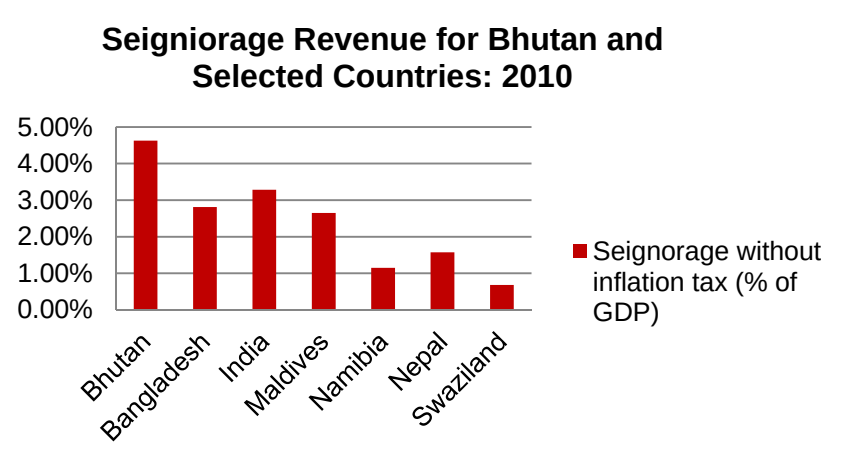
If Some of the Rupee Inflows Were Sterilized…A Hypothetical Scenario

	No Sterilization of Inflows	Sterilization of 60% Inflows
RGoB receives a loan of INR 100 million	Nu 100 million deposited in a bank	Nu 40 million deposited in a bank
CRR	17	6.8
SLR	20	8
Total amount of bank deposits available for private credit	63	14.8
Bank assumes that this deposit will be available for 6 months		
Given this, Bank can create 3 (three) loans, each with 2 (two) month duration	63 x 3 = 189.0 million	14.8 x 3 = 44.4 million
After 6 months, RGoB uses its loan of INR 100 million for Nu 60 million to import and Nu 40 million for local consumption	189 million + 60 million =	44.4 million + 60 million =
Total Rupee demand against an inflow of INR 100 million	*249.0 million*	*104.4 million*

- Timing and volume mismatches between inflows and outflows can create opportunities for short-term credit
- Actual multiplier effect of inflows on credit growth is likely to be larger if deposits for each successive loans are made in different banks
- Some of the inflows could have been sterilized to contain private sector credit growth

Non-sterilization of Inflows Increases Seigniorage but…

- Non-sterilization of inflows increases the size of monetary base (M0, which grew by 39.9% in 2009-10) and consequently increases seigniorage, but at a cost..
- Seigniorage income needs to be weighed against the direct costs of higher interest expense on short-term INR borrowings from RBI/SBI and indirect costs of excessive current account deficits, instability and loss of confidence in Ngultrum/peg



Policy Issues for Consideration

- Level and composition of international reserves
- Administrative arrangements to reduce timing and volume mismatches between Rupee inflows and outflows
- Micro-prudential regulations for liquidity management and credit flows – incentivize credit to priority sectors and discourage credit to non-priority sectors
- New savings instruments – government bonds
- *Ex ante* sterilization of INR inflows, particularly inflows that belong to RGoB, and are intended for imports, to minimize the levels of short-term deposits and smooth net government lending to the banking sector