

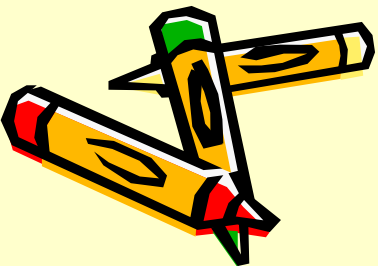
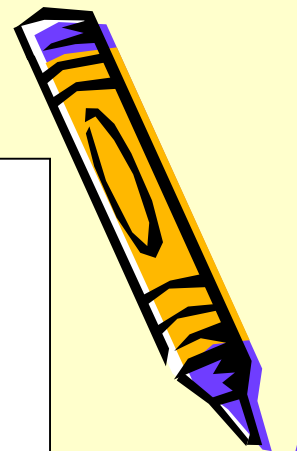


## **RIS-CII Seminar**

on

### **Economic Cooperation Between India and Central Asia**

*Venue:* Long Champs, Hotel Taj Man Singh, New Delhi  
October 17, 2003

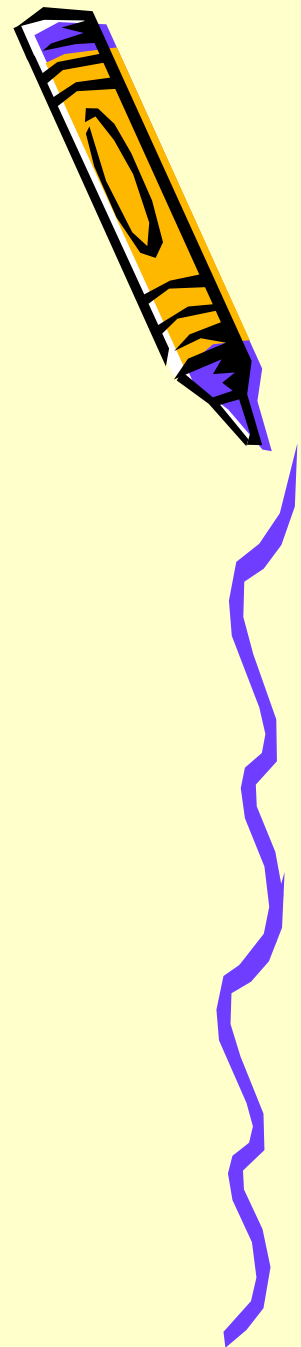


# Prospects and Constraints for Trade Cooperation between India and Central Asian Republics: Some Issues

Ram Upendra Das

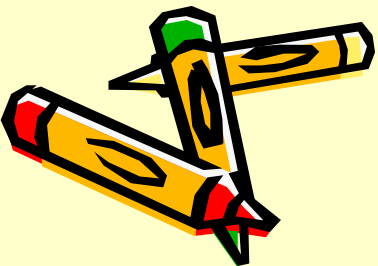
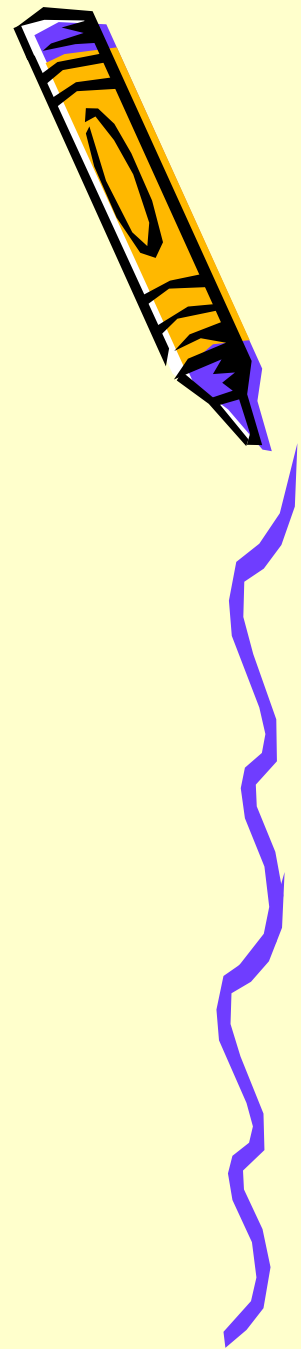


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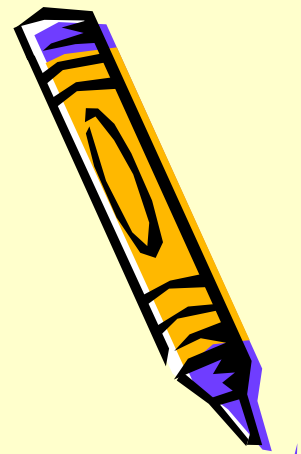
# Introduction

- Macro Profile
- Bilateral Trade
- Export Specialization
- Trade Complementarity
- Intra-Industry Trade
- Gravity Model
- Constraints
- Policy Recommendations



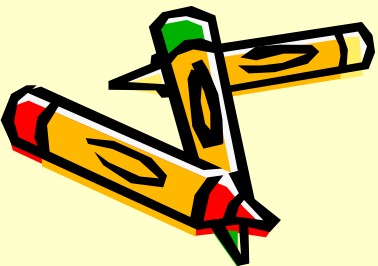
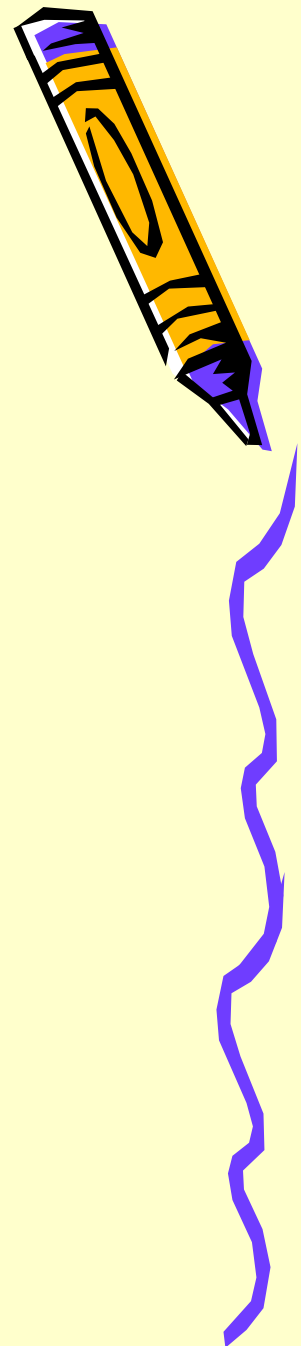
# Macro Profile: Recent Trends

- One of the best economic growth performance in Asia: Kazakhstan, Tajikistan and Turkmenistan.
- Inflation a problem: Tajikistan, Uzbekistan.
- External balances improved: current account deficit as percent of GDP declined.
- Export growth dynamism: Kazakhstan, Tajikistan and Turkmenistan.
- Exchange rate volatile over time but recently more stable and marginally depreciating.
- Improve budget management, tax system, reduction in energy subsidies, strengthening of banking supervision: measures still insufficient.



# Bilateral Trade

- Low trade volumes.
- Trade concentration.
- Insignificant relative mutual importance:
  - Importance of CARs in India's total trade.
  - Importance of India in CARs' total trade.
- Lack of trade growth dynamism.



# Export Specialization

Revealed Comparative Advantage (RCA)\* Index  
in a Dynamic Setting (1996-2000)  
(Products at SITC 4-digit Level)

<u>India</u>	<u>KZ</u>	<u>KY</u>	<u>TJ</u>	<u>TK</u>
L	NR	NR	PK	NR
NR	PK	T	NR	L
T	T	PK	HK	T
HK	HK	HK	T	
PK		L	L	
(44%)**	(72%)	(74%)	(98%)	(91%)

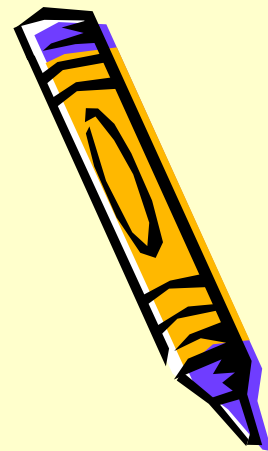
\* $RCA_{ij} = (X_{ij}/X_{it}) / (X_{jw}/X_{tw})$  where RCA = revealed comparative advantage index:  $X_{ij}$  = country i's exports of good j;  $X_{it}$  = country i's total exports; w = world trade totals.

KZ = Kazakhstan, KY = Kyrgyzstan, TJ = Tajikistan, TK = Turkmenistan.

\*\*Figure in the parenthesis is export coverage. Included products are those with share in total exports > 1 %. L = Unskilled Labour Intensive, HK = Human Capital Intensive, T = Technology Intensive, PK = Physical Capital Intensive.



# Trade Complementarity: Cosine Index



	<u>KZ</u>	<u>TU</u>	<u>KY</u>	<u>TJ</u>
$\text{CosI}_x\text{C}_m = \mu$	0.05	0.12	0.04	0.008
$\text{CosI}_m\text{C}_x = \lambda$	0.69	0.18	0.36	0.04

$\mu$  = Cos between India's Exports and CARs' Imports

$\lambda$  = Cos between India's Imports and CARs' Exports

$$\text{Cos}_{ij} = \frac{\sum_k E_{ik} \cdot M_{jk}}{\sqrt{(\sum_k E_{ik}^2) \cdot \sum_k M_{jk}^2}}$$

in which

$E_{ik}$  = exports of country  $i$  in commodity class  $k$

$M_{jk}$  = imports of country  $j$  in commodity class  $k$

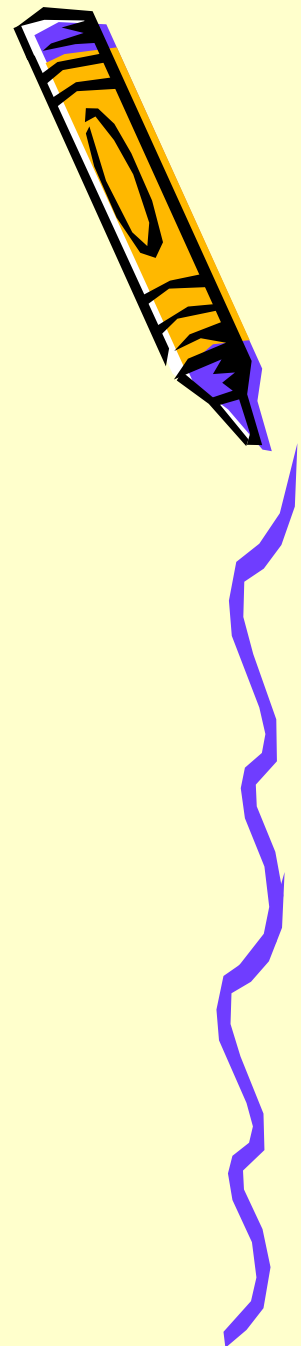
$k$  = commodity class  $1, \dots, n$



# Intra-Industry Trade(IIT)\*

- Low trade complementarity.
- High production similarity.
- Economic rationale of IIT.
- Potentials for bilateral IIT:
  - Present levels of IIT:low
  - Potential IIT

$$* IIT = 1 - \left[ \frac{|X_{ij} - M_{ij}|}{X_{ij} + M_{ij}} \right]$$



# Prospects for Cooperation between India and CARs: Gravity Model Estimation



- The concept.

$$E_{ij} = A(Y_i)^a \cdot (Y_j)^b / (1 + d_{ij})^c \cdot (TB)^d$$

- $\log E_{ij} = \log A + a \log Y_i + b \log Y_j - c \log (1 + d_{ij}) - d \log (TB) + \mu$
- Pooled data.
- Fixed effects and random effects.
- OLS/GLS/SUR.

Where

$E_{ij}$  = trade flow from country I to country J

$Y_i$  = GDP of Country I

$Y_j$  = GDP of Country J

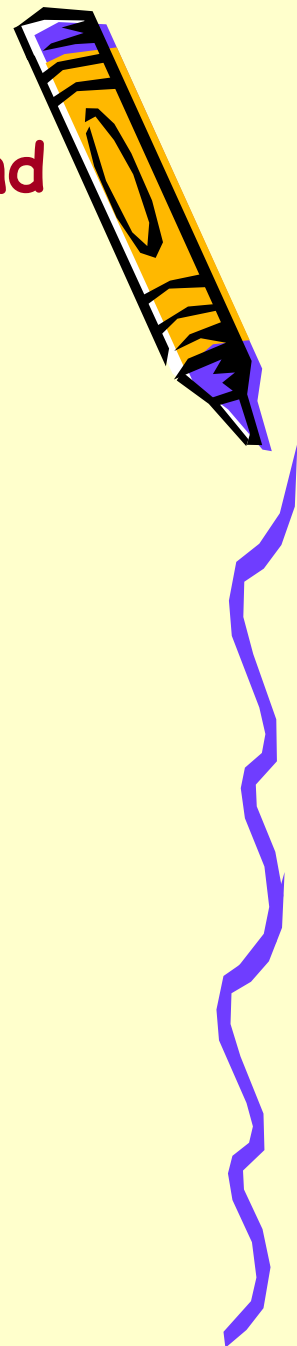
TB = index of trade barriers, tariff and non-tariff

$d_{ij}$  = distance between country I and country J



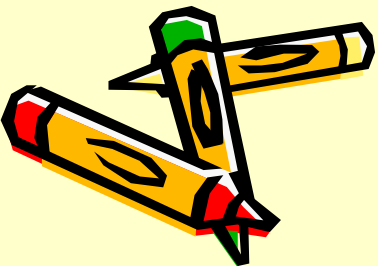
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# Prospects for Cooperation between India and CARs: Gravity Model Estimation



- Results:
    - High  $R^2$
    - Variables significant with expected signs  
(GDP of India and CARs: +ve  
Distance: -ve  
Import barriers: -ve)\*
- Robust model but limitations: High  $R^2$ .

\* Due to data limitations results not as expected.



# Constraints

- Information gap:
  - Data availability
  - Data exchange and dissemination
  - Data processing
  - Data analysis
- Lack of Information Technology infrastructure.
- Economic research capability.
- Inadequate banking facilities including trade finance.
- Exchange rate management.
- Insufficient travel links.
- Transport bottlenecks.



# Policy Recommendations

- Taking an integrated view of trade in goods and services with investment, technology and human resources development.
- Conducting a Feasibility Study on Central Asia-India Free Trade Agreement (CGE: Computable General Equilibrium: Model Estimation).
- Sectoral studies.
- Focus on tapping trade complementarities in areas of mutual export specialization and exploring IIT possibilities.

Contd....





- Strengthening trade-investment linkages through mechanisms like rules of origin.
- Cooperation in the Area of Services such as Database Creation and Dissemination, Consultancy Services, Infrastructural Services, etc.
- An Expert Group to Study the possibilities of India Providing Technical Advice to CARs on Central Banking Functions and Commercial Banking Operations.
- Increasing Inter-governmental Exchange of Technical Experts Relating to Science and Technology Projects aimed at Economic Development.

