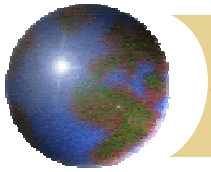


*Changing Trade Patterns and  
Implications for Market Access  
Negotiations*

Will Martin and Vlad Manole

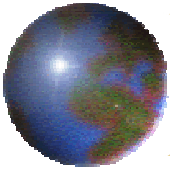
World Bank

22 April 2003

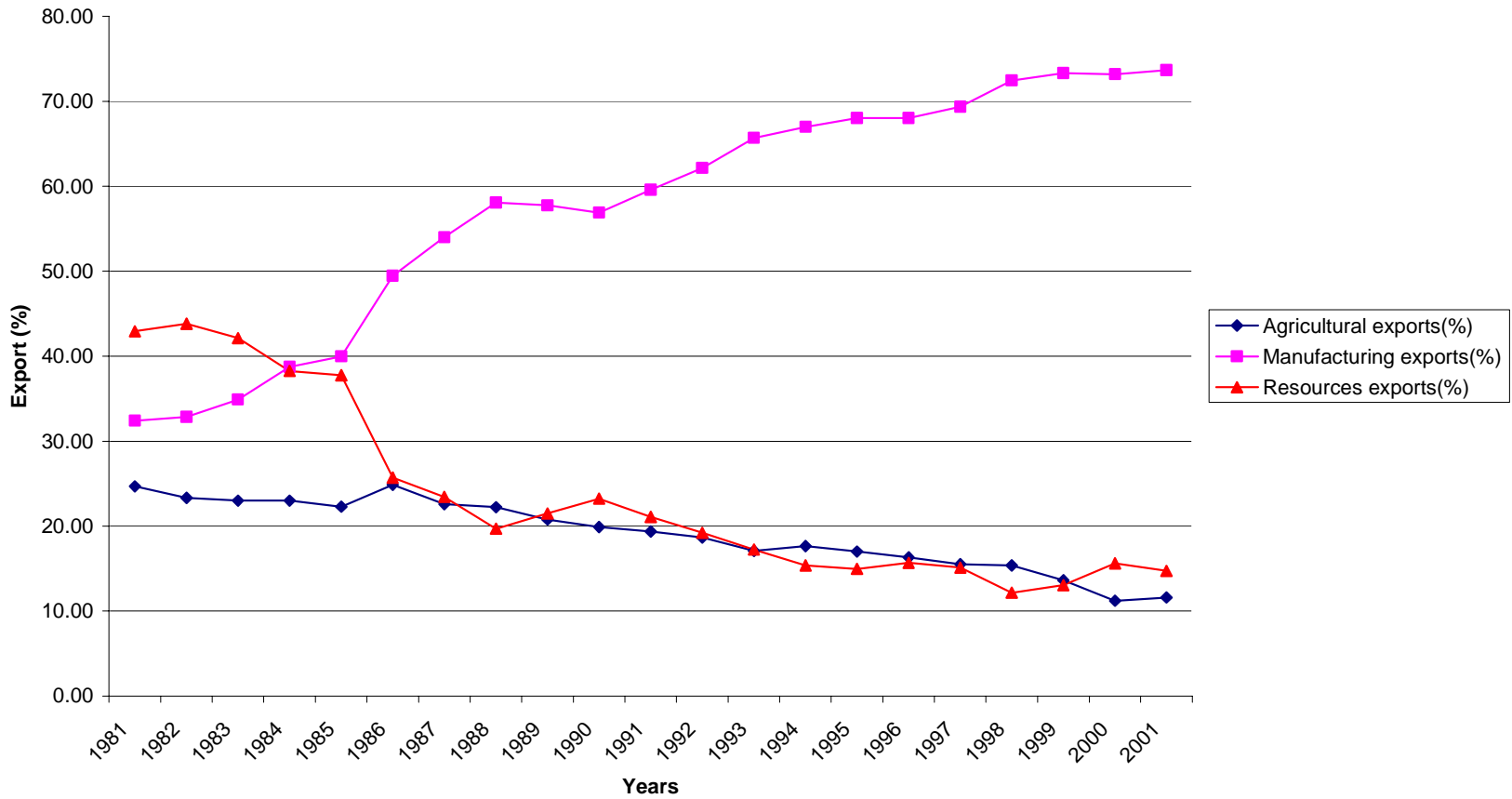


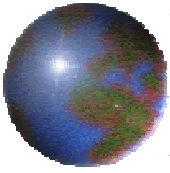
# Issues

- Rapid changes in the structure of developing country exports
  - Why?
- Interests in the negotiations
  - Tariffs facing exporters
  - Specific vs *ad valorem* tariffs
- Possible modalities

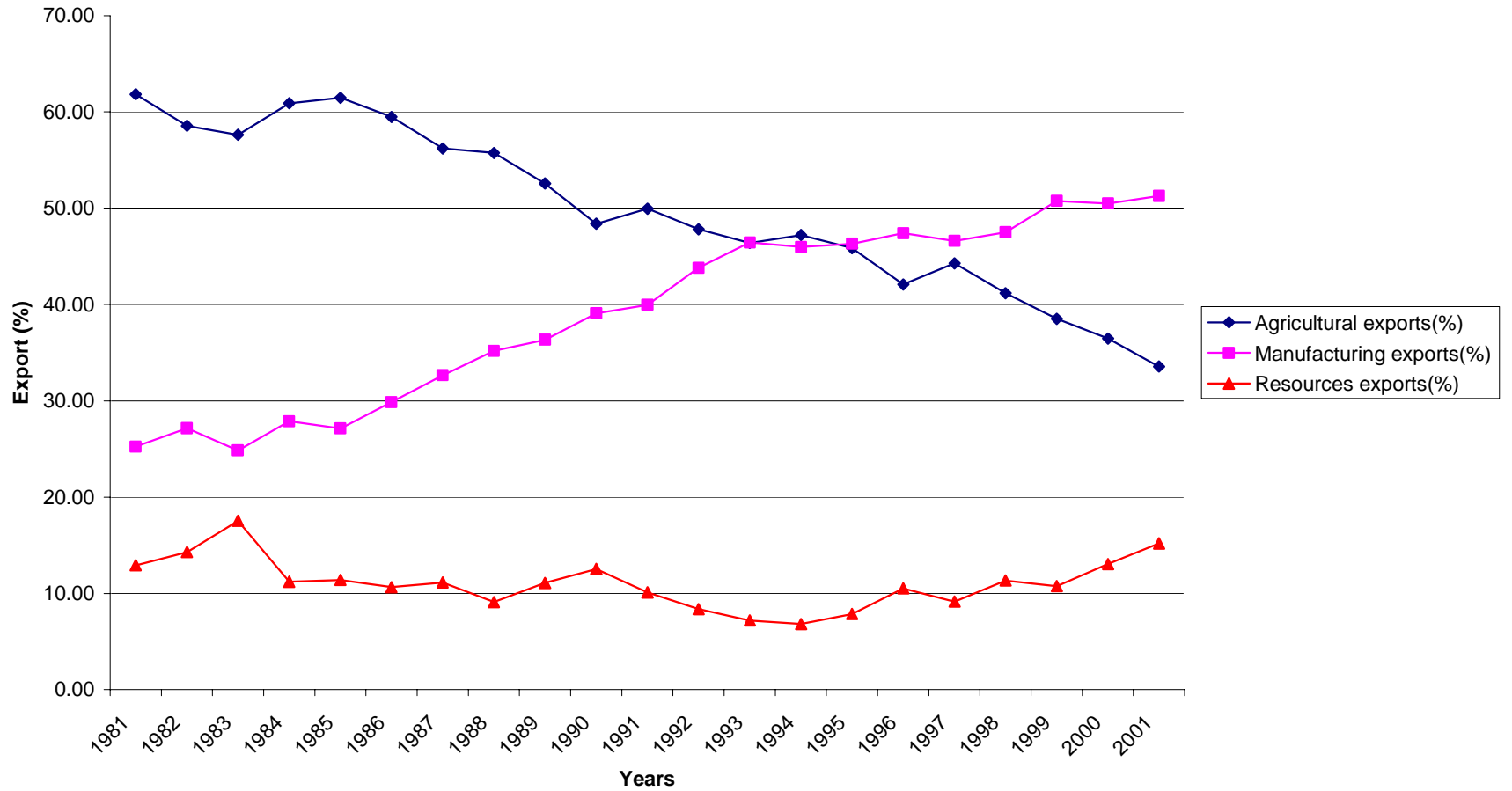


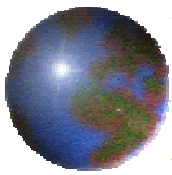
### Export Structure of Middle Income Countries





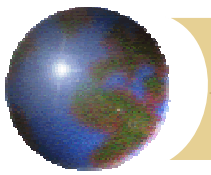
### Export Structure of Low Income Countries (average)





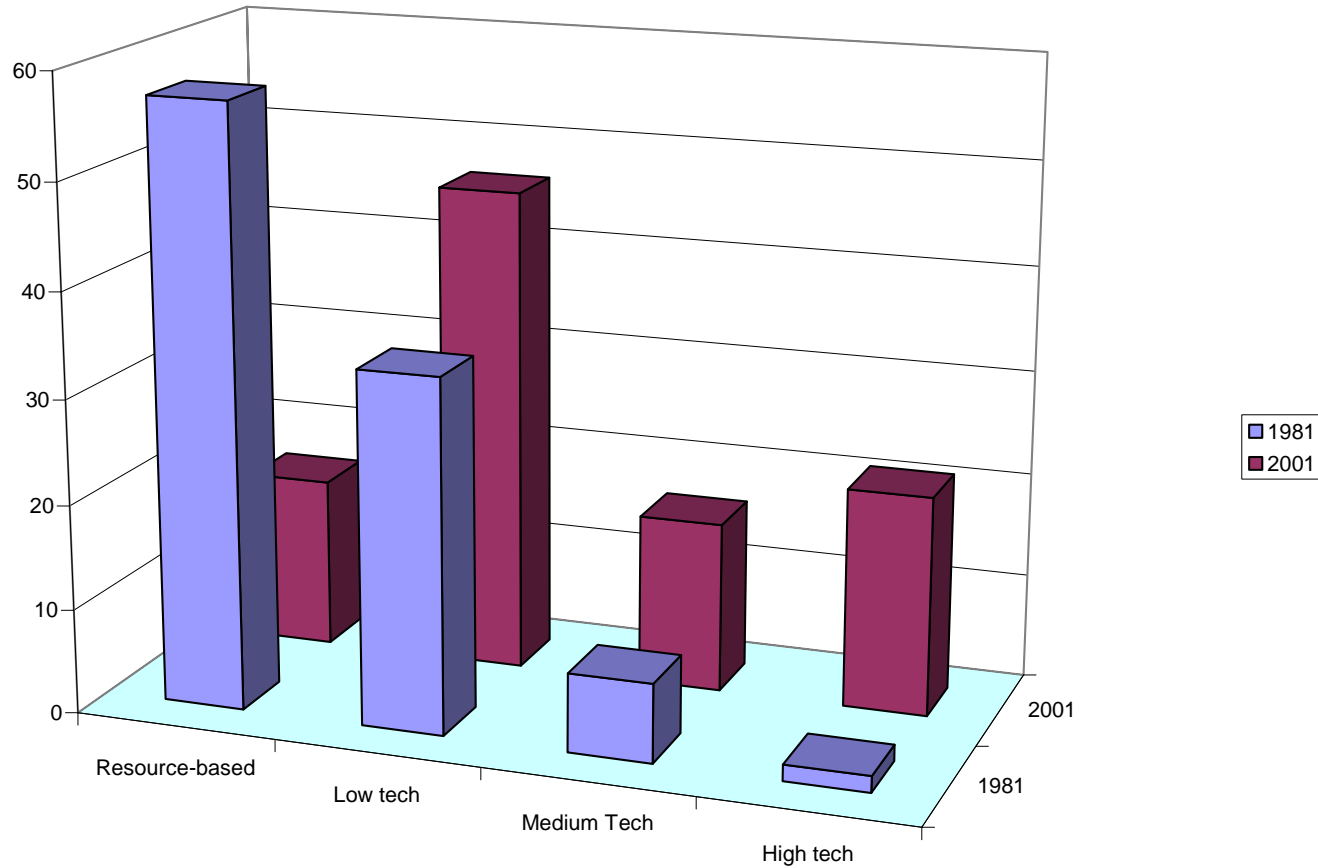
# Annual export growth 1981-01

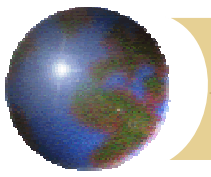
	Low Inc	Middle Inc	High Inc	World
	%	%	%	%
<b>Primary products</b>	6	2	2	2
<b>Resource-based manufactures</b>				
Agricultural	11	6	5	6
Other	9	6	5	5
<b>Low-technology manufactures</b>				
Textiles	15	9	5	8
Other	20	11	6	8
<b>Medium technology manufactures</b>				
Automotives and compone	19	19	7	8
Process industry products	12	11	6	7
Engineering products	24	14	7	8
<b>High technology manufactures</b>				
Electronic	35	18	11	13
Other	20	12	9	9
<b>Total</b>	14	8	6	6



# *Export shares— low income*

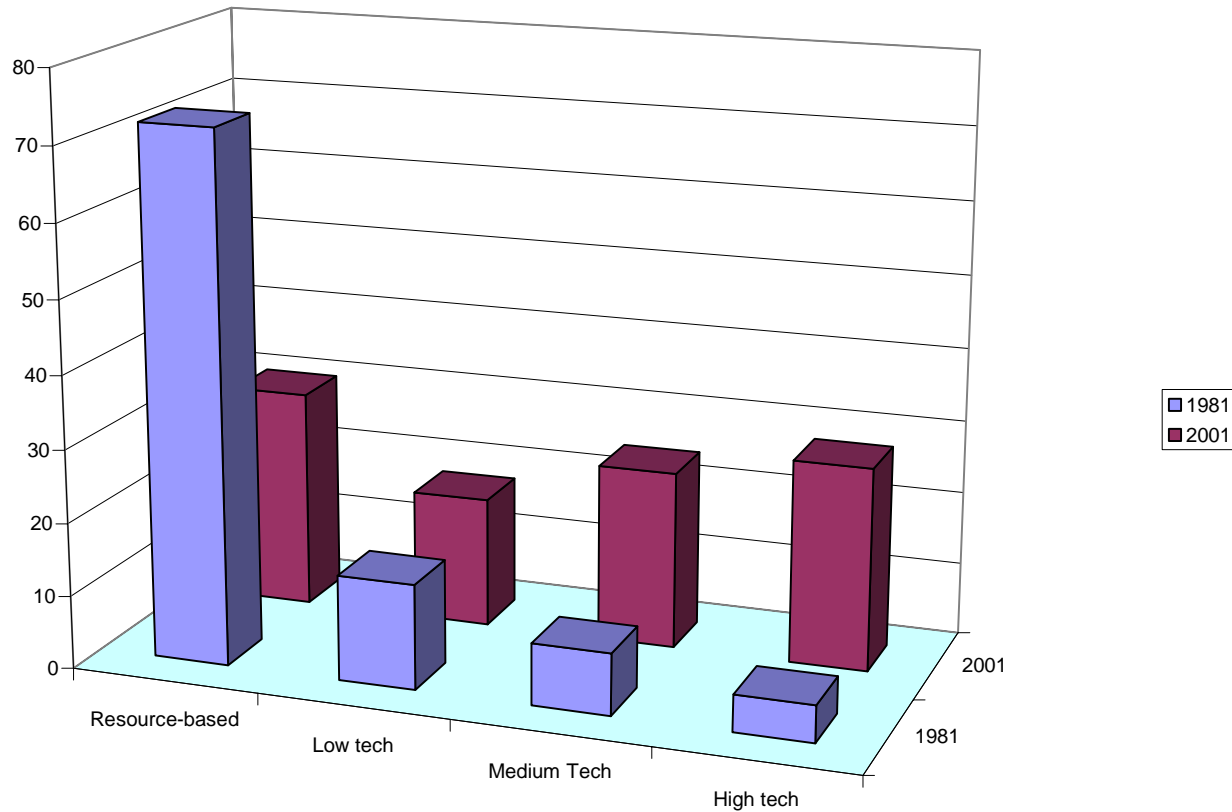
Changes in the composition of exports--- Low income countries

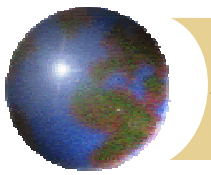




# *Export shares: Middle income*

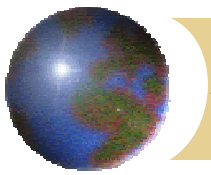
Changes in the share of exports-- Middle income countries





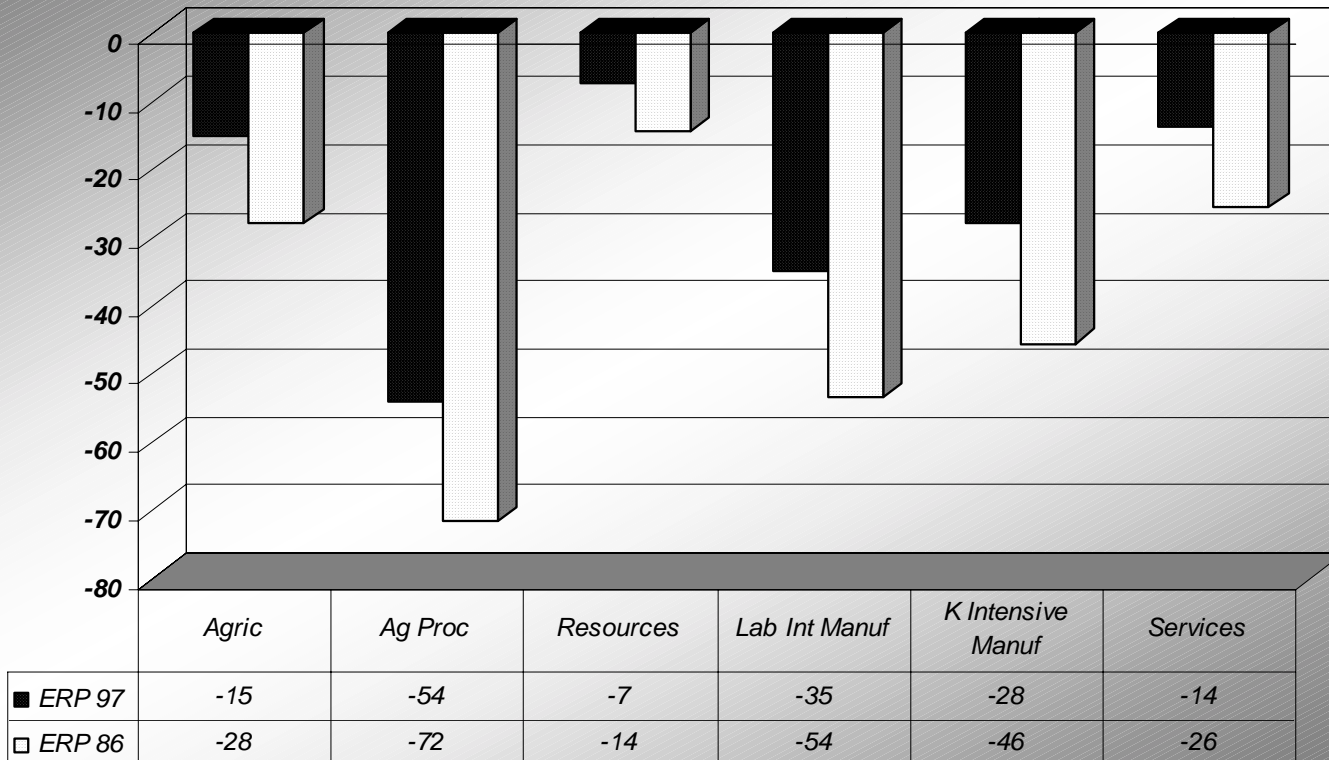
# *Changes in factor endowments*

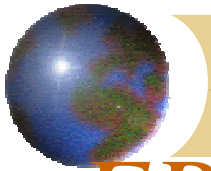
	<b>K/L</b>	<b>Edn/L</b>
	<b>%</b>	<b>%</b>
<b>Industrial</b>	<b>3.7</b>	<b>0.3</b>
<b>Developing</b>		
<b>East Asia</b>	<b>5.1</b>	<b>4.2</b>
<b>South Asia</b>	<b>3.2</b>	<b>3.3</b>
<b>Latin America</b>	<b>2.4</b>	<b>2.0</b>
<b>Sub-Saharan Africa</b>	<b>2.1</b>	<b>4.2</b>
<b>M. East &amp; N. Africa</b>	<b>3.4</b>	<b>2.3</b>



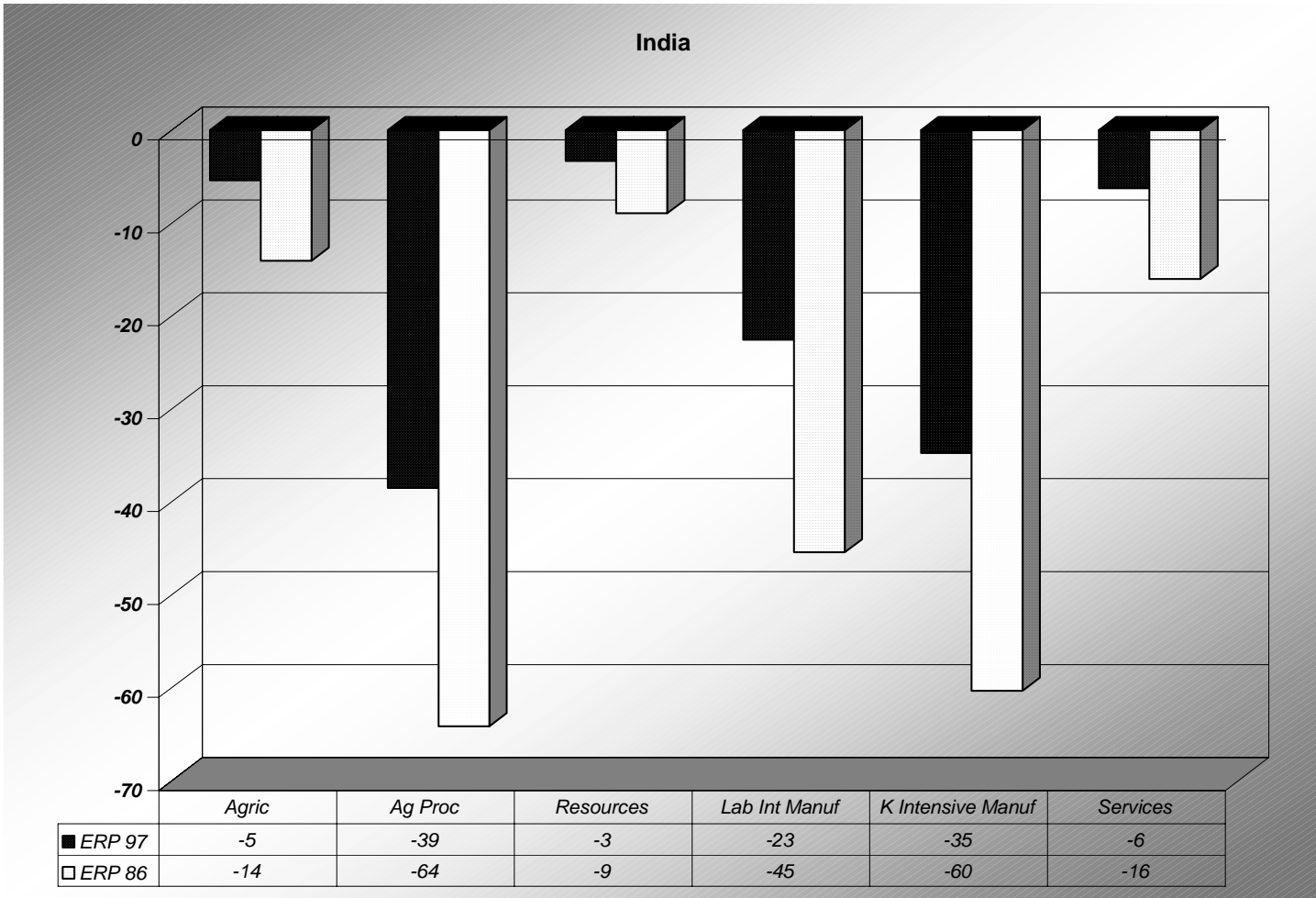
# ERP on exports: China

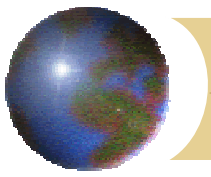
China





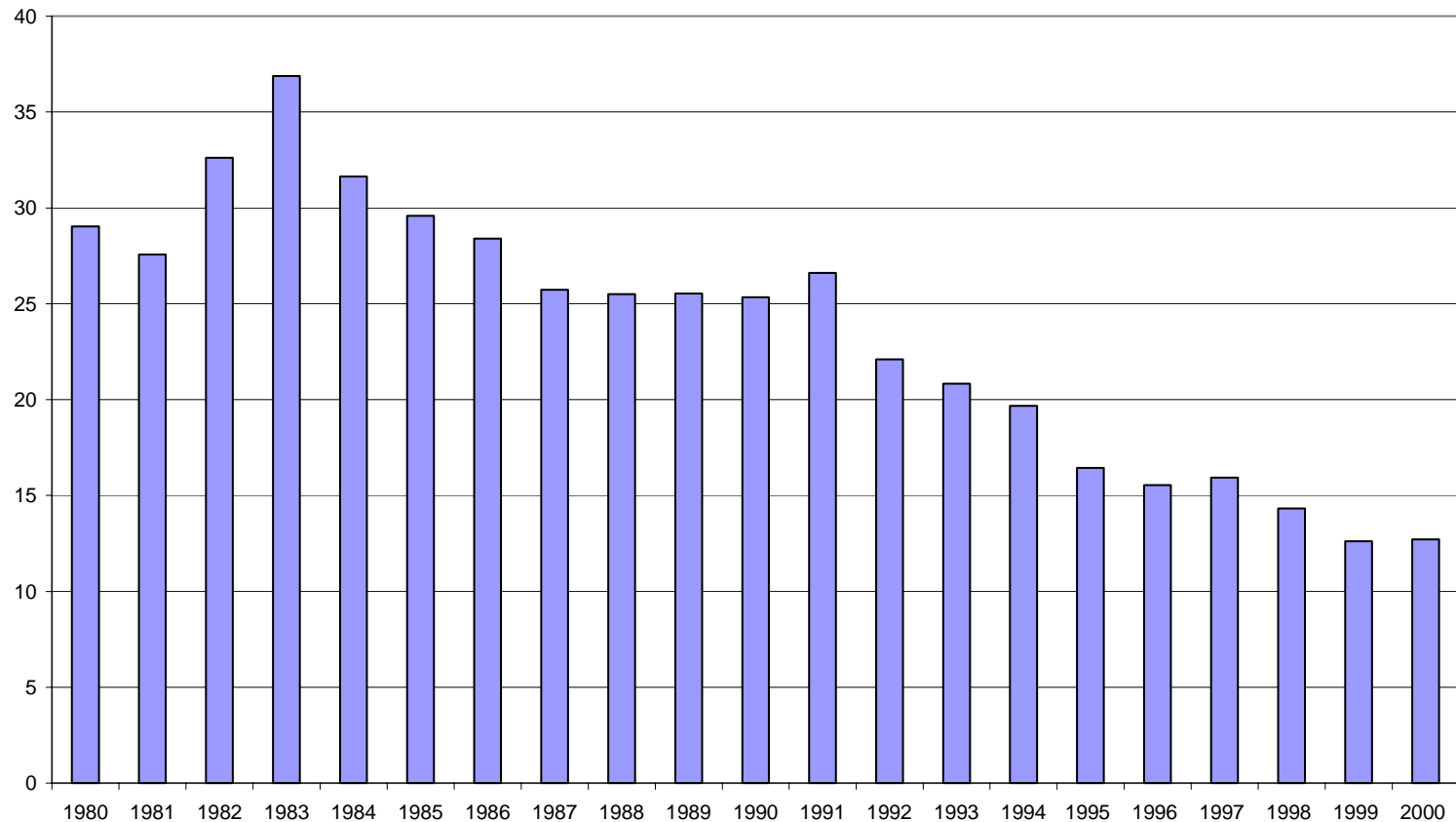
# ERP on exports: India

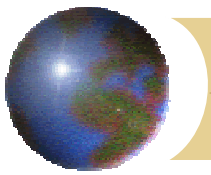




# *Protection reductions in developing countries*

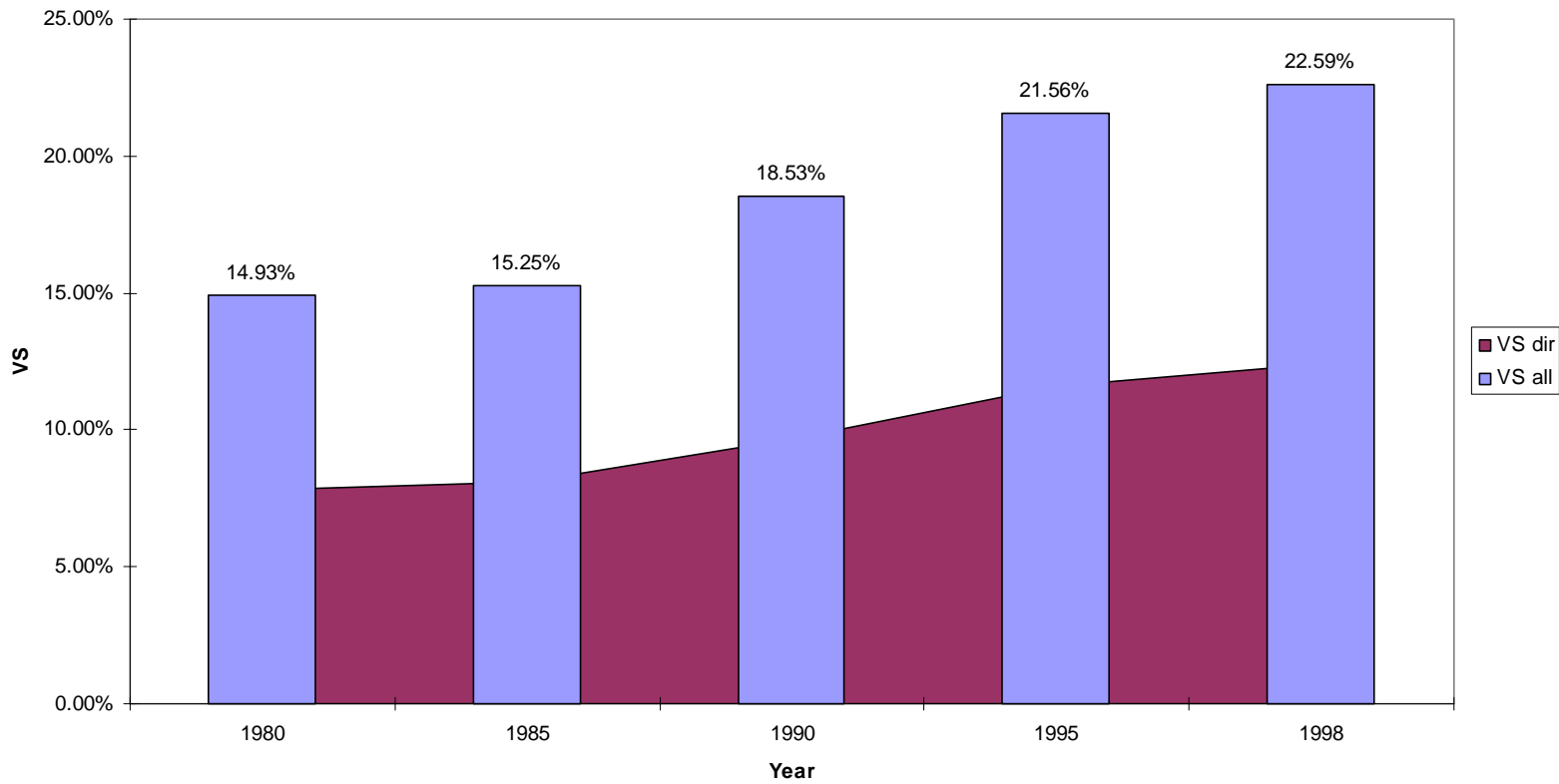
Tariff rate

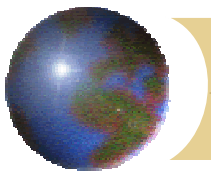




# Global production sharing: China

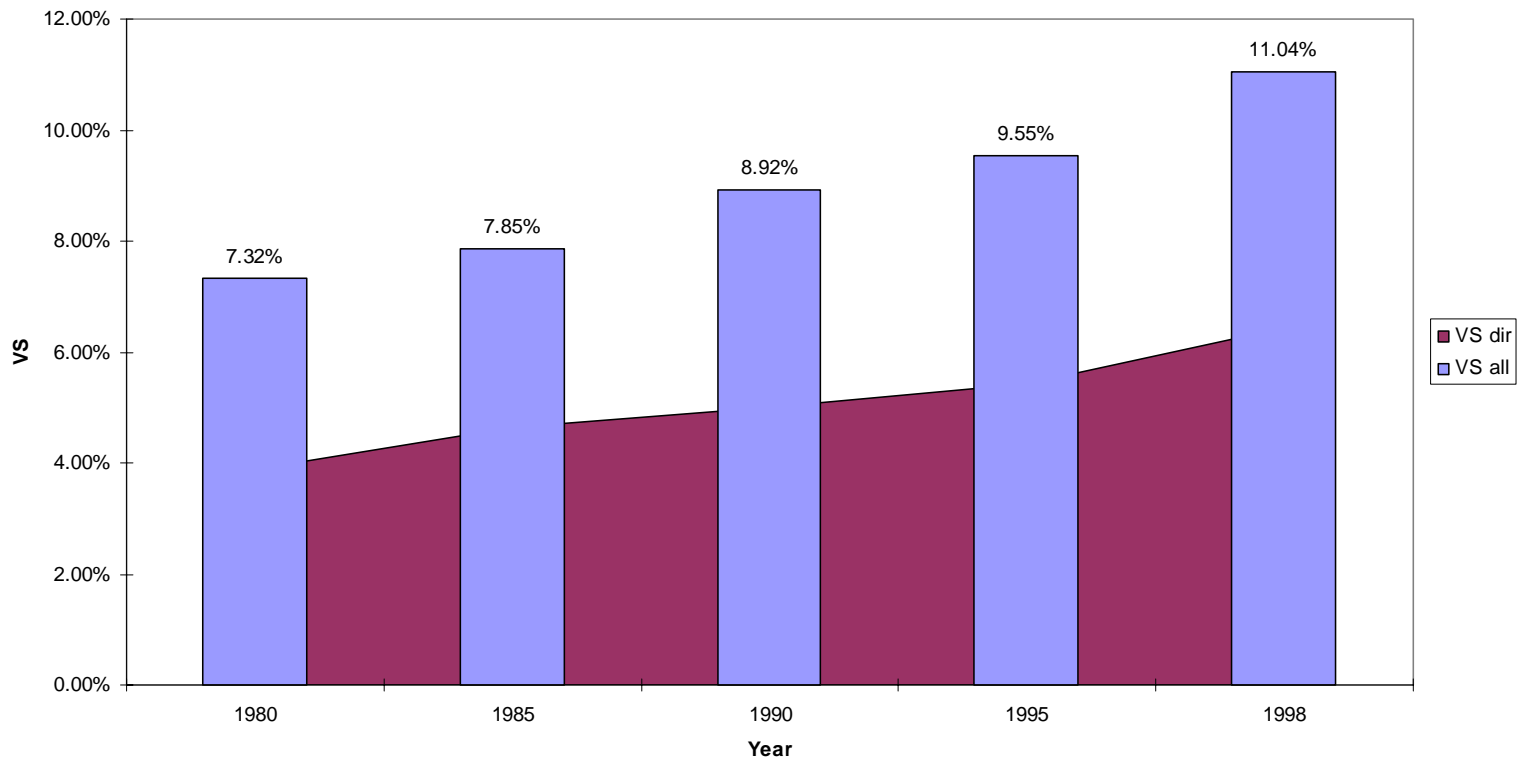
Vertical Specialization - China IO GTAP 5.3

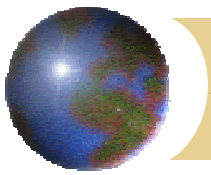




# Global production sharing: India

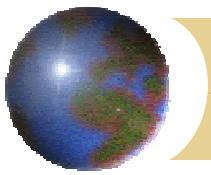
Vertical Specialization - India IO GTAP 5.3





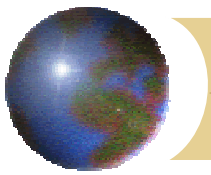
## *Tariff rates against exporters*

<b>Agriculture</b>	<b>EAP</b>	<b>ECA</b>	<b>Rich</b>	<b>LAC</b>	<b>MENA</b>	<b>SAS</b>	<b>SSA</b>
<u>Exporter</u>	%	%	%	%	%	%	%
EAP	31.0	30.3	30.5	15.5	45.3	38.4	19.0
ECA	24.2	36.4	35.1	23.8	55.3	34.2	12.7
Industrial	33.3	43.7	15.3	20.1	65.4	16.4	24.0
LAC	42.1	36.0	20.4	14.8	50.3	29.7	24.7
MENA	23.0	43.4	23.4	14.9	76.4	31.8	18.9
SAS	16.6	34.6	25.8	13.7	41.1	27.7	11.0
SSA	26.7	20.3	23.6	14.4	39.1	30.9	33.6



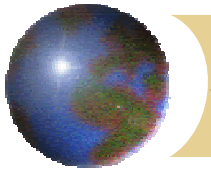
# *Tariff rates exporters: Non-ag*

<u>Exporter</u>	EAP	ECA	Rich	LAC	MENA	SAS	SSA
	%	%	%	%	%	%	%
EAP	8.2	13.8	5.1	15.1	12.2	28.1	14.5
ECA	6.4	6.4	5.9	11.4	8.6	25.8	12.8
Industrial	7.4	9.6	1.0	8.5	10.4	25.2	12.2
LAC	4.3	6.7	2.1	15.4	8.9	19.4	11.9
MENA	5.4	11.5	6.0	8.8	11.4	33.6	11.7
SAS	7.1	11.0	8.1	13.6	10.2	19.0	17.4
SSA	4.4	6.1	4.2	11.7	6.1	27.6	20.6



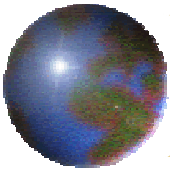
## *Tariffs levied*

	E Asia	ECA	Rich	LAC	MENA	SA	SSA
<u>Exporter</u>	%	%	%	%	%	%	%
East Asia	37	2	40	6	5	6	4
ECA	3	14	71	2	6	2	3
Industrial	31	7	20	15	14	7	6
Latin America	4	0	28	64	2	1	2
Middle East	8	2	43	2	12	29	3
South Asia	9	1	63	3	10	7	8
Sub-Saharan	9	1	36	4	2	8	40



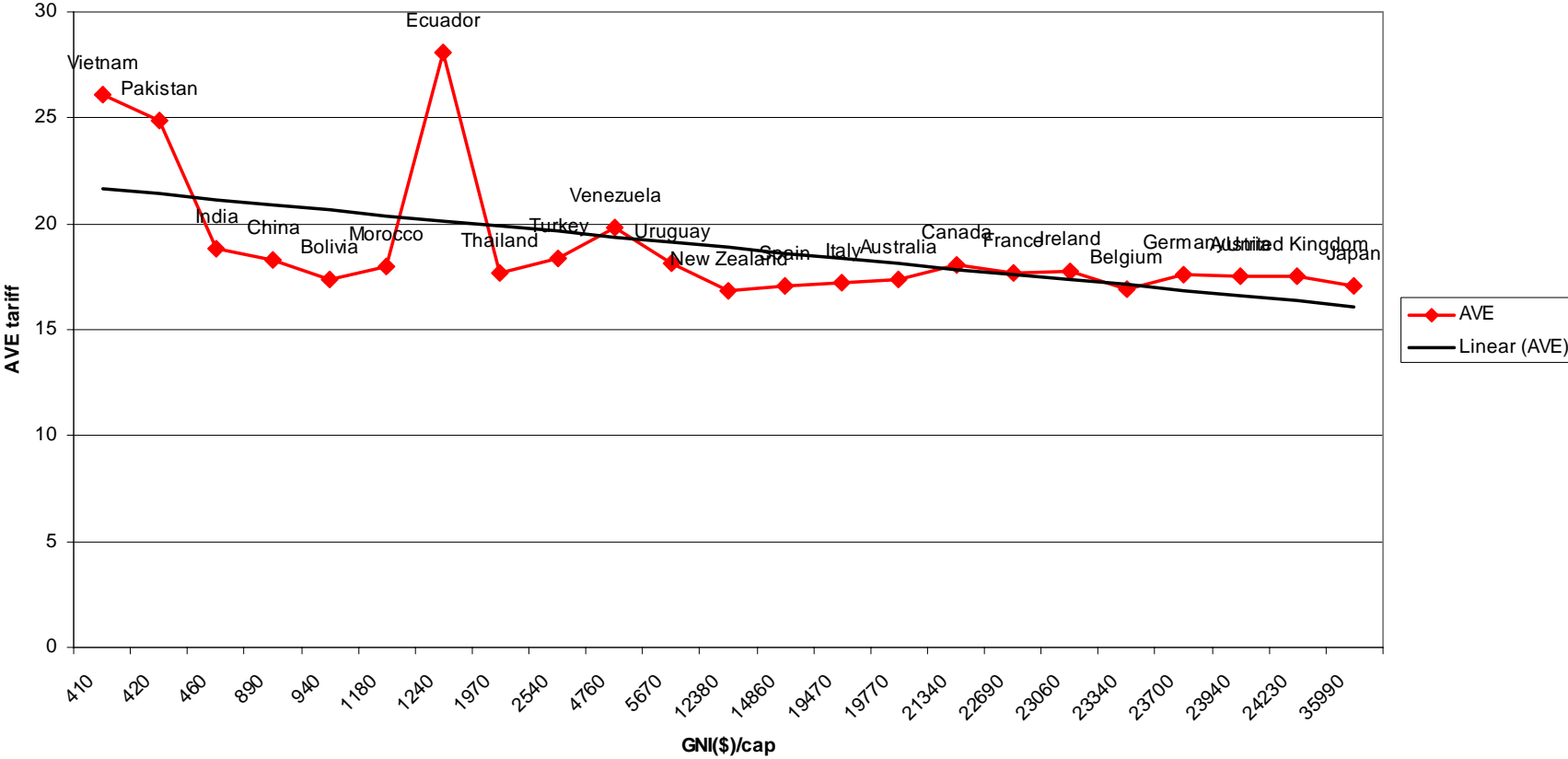
## *The “Scourge of the Specific”*

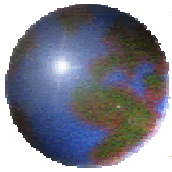
- ❖ Lower income countries tend to have lower unit values for many products than high income countries
- ❖ With specific tariffs, the *ad valorem* equivalent of the tariff is higher on poorer countries



# Overcoats to the US

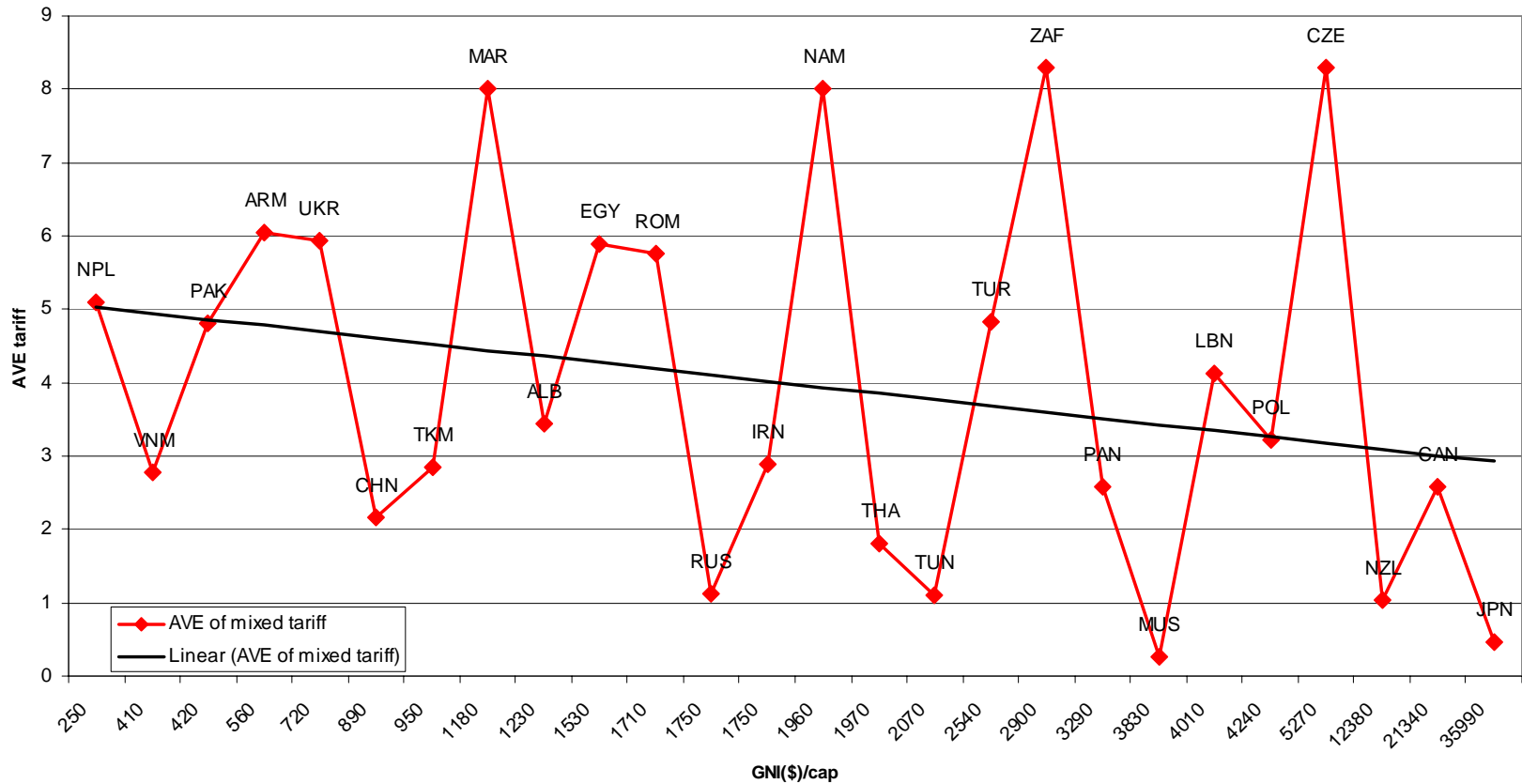
AVE composed tariff for men's overcoats  
2001

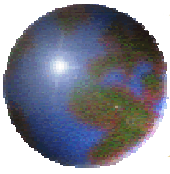




# *Carpets to the EU*

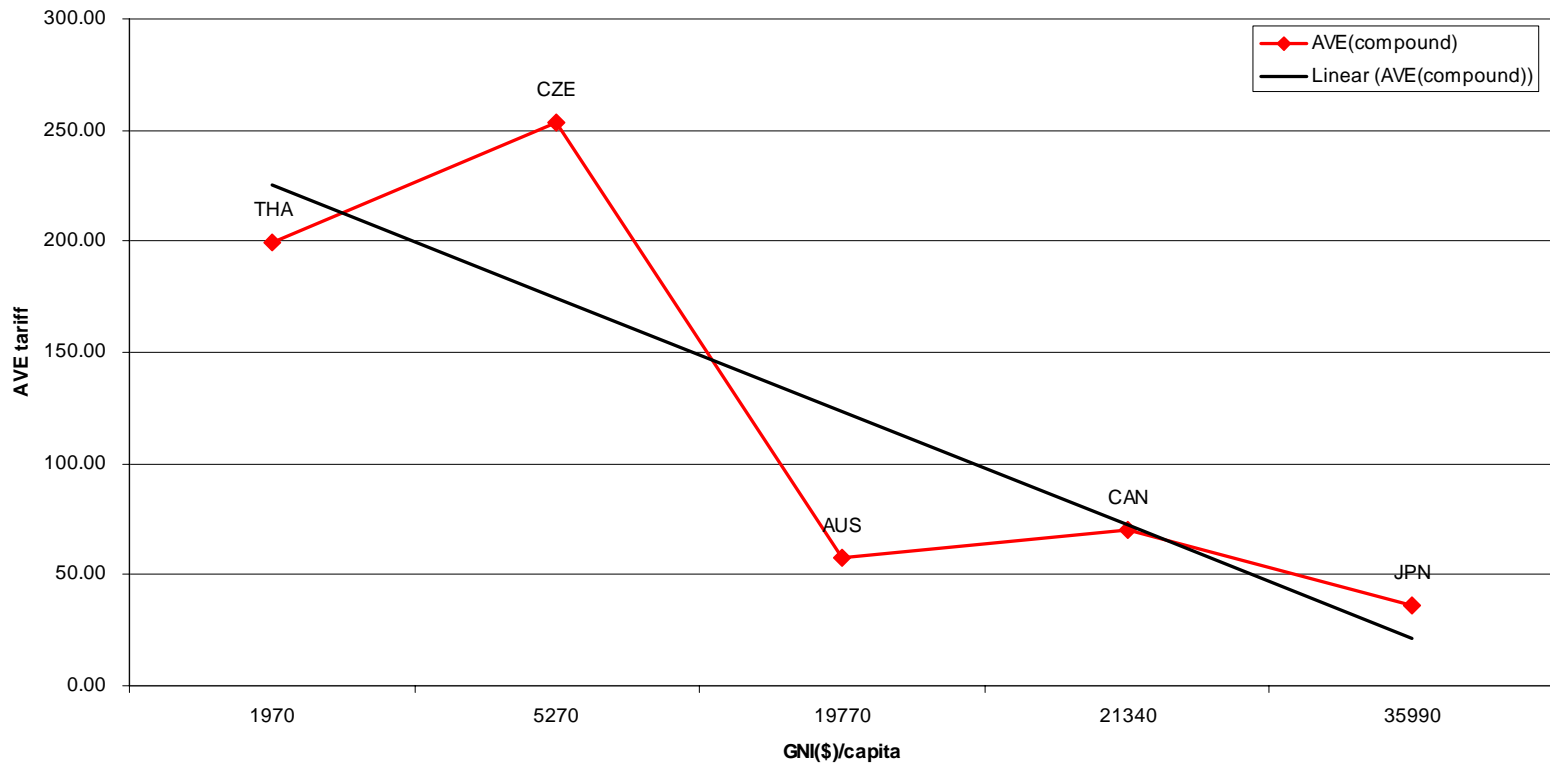
AVE of mixed tariff for EU imports  
carpets NL 57011099

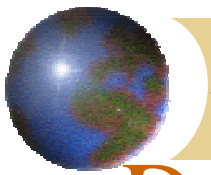




# Starch to the EU

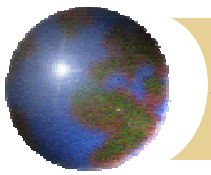
AVE tariff for EU imports  
starch - NL 35051090





# *Desirable modalities*

- Formulas help achieve reform
  - Not just any formula. Formulas in average cuts meaningless. Consider only the cut in the average
- Reduce tariffs considerably
- Reduce high tariffs by more than lower tariffs
  - Improves efficiency in the importer
  - Likely to increase access of developing countries



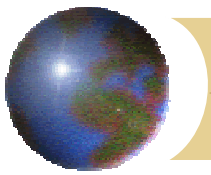
## *Swiss formula and extensions*

- $T_1 = a.T_0/(a + T_0)$

- Can increase flexibility to any option between the Swiss formula and a proportional cut

- $T_1 = a.T_0/(a.b + T_0)$

- Can also target a cut in the average tariff
  - Allow  $a$  to adjust to meet the target



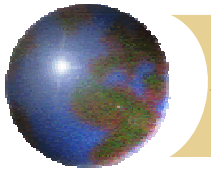
# *Some interesting proposals*

## ☉ Chinese formula

- ☒ Base on applied rates in rich countries, bound in poor
- ☒ Extended Swiss formula
- ☒  $T_1 = (a+P).T_0/((a+P^2) + T_0)$

## ☉ European formula

- ☒ Piecewise linear  $t_1 = B_1^L + (t_0 - B_0^L)*\gamma$
- ☒ Larger cuts on high tariffs– we use 1/3 below the average and 2/3 above



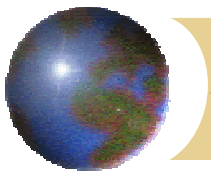
## *Some interesting proposals*

### ❁ Indian formula

- ❁ 50% cut for developed; 33% for low inc.
- ❁ Upper bound 3 times the average
- ❁ Unbound tariffs at max. bound rate

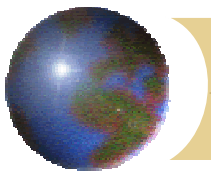
### ❁ US formula

- ❁ Under 5%  $\Rightarrow 0$
- ❁ Over 5% Swiss formula with coeff of 8
- ❁ All tariffs to zero in 15 years



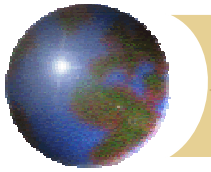
## *Results of different formulas*

	Base	China	Europe	India	US
Europe tarif	%	%	%	%	%
LIC	5.3	1.9	2.5	2.6	1.9
MIC	3.8	1.4	1.8	1.8	1.3
Developing	4.1	1.5	2.0	2.0	1.4
US tariff on					
LIC	4.3	2.3	2.0	2.0	1.4
MIC	3.2	1.6	1.5	1.5	0.8
Devel	3.5	1.1	1.8	1.6	1.0



## *Results: India and Brazil*

	Base	China	Europe	India	US
India tariff on					
LIC	28.1	24.5	17.1	24.2	6.6
MIC	26.7	22.2	14.8	22.0	6.4
Devel	27.1	22.8	15.4	22.5	6.4
Brazil tariff on					
LIC	14.6	12.3	9.9	14.2	5.9
MIC	14.0	10.8	8.5	12.3	5.4
Devel	14.1	10.9	8.6	12.5	5.4



## *Conclusions*

- ❖ Developing country export patterns have changed radically
- ❖ Interests in market access both in industrial and developing countries
- ❖ Modalities need to bring down high tariffs.
  - ❑ Gap between bound and applied rates has a big impact