

Liberalisation of the Global Market for Oilseeds, Oils and Meals

**Presentation to
The IASC Congress
San Francisco, June 2006
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Outline of the Presentation

- Methodology employed for the analysis
- Impact of liberalisation upon global oilseed, oil and meal output and prices
- Beneficiaries from liberalisation: the implications for leading exporters and developing countries
- The implications of liberalisation for the location of crushing and refining

Methodology

Methodology - 1

- The model is a comparative static one, to focus on how liberalisation would affect behaviour in the world as it was in 2004/05.
- This allows us to identify the consequences of liberalisation alone, away from any of the effects of population and income growth.
- Without this, it would be hard to distinguish between changes caused by liberalisation and those that would have been caused by, e.g., Chinese and Indian economic growth.

Methodology - 2

- Producers alter output in response to the profit/loss in earlier years (a lag of 1 year for annual crops and 4 years for tree crops).
- Potential area is limited in some countries, e.g., in Ukraine, for sunflower, or Argentina, for soybean, agronomic limits are assumed to limit potential growth in oilseed areas.
- Liberalisation lifts returns for producers facing export taxes (e.g., Argentine soy) and reduces them in protected markets.

Methodology - 3

- EU area and US deficiency payments are assumed to remain after liberalisation.
- Consumers' reaction to price changes is determined by their oil and meal price elasticities of demand. Since poor countries have the highest elasticities, they enjoy the greatest benefit from any fall in prices.
- The major oils and meals are assumed to retain stable price relativities to one another as a result of substitution as one becomes more expensive vs. others.

Methodology - 4

- Ocean freight costs link all oilseed, oil and meal prices to export or import parity prices via North West European market prices.
- Crushing is assumed to occur without any tariff/non-tariff barriers, merely “natural” protection, via freight costs.
- Refining on a significant scale for export to overseas destinations occurs only in the palm oil sector.

Understanding

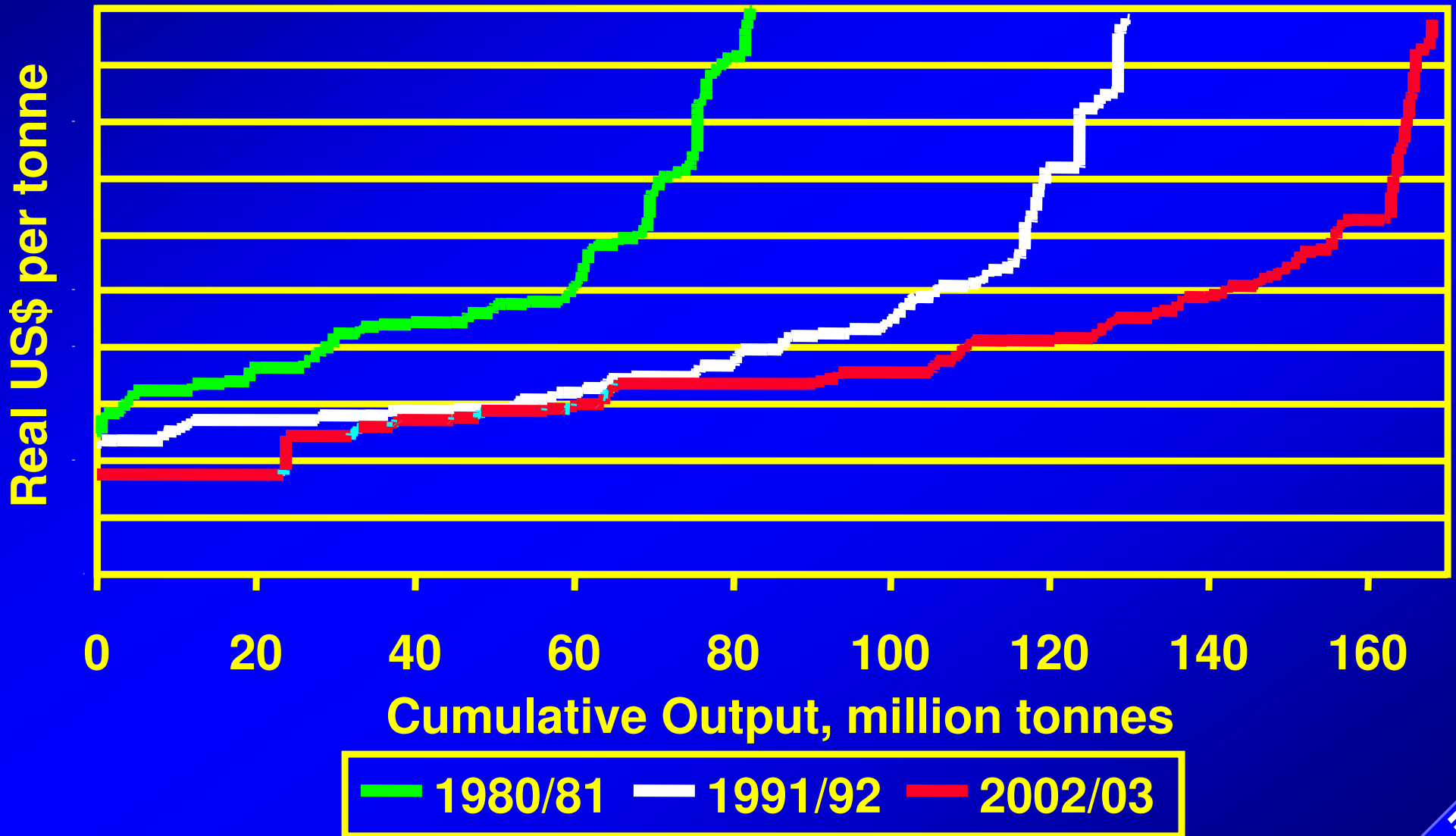
Supply and Demand

Responses

Supply Responses

- World supply of a product evolves as low cost producers expand and high cost producers decline in importance.
- Even if production costs were unchanged in individual countries, the shifting balance of output towards low cost regions pulls down the average costs of production worldwide.
- This is shown in the next diagram, plotting how the distribution of production costs and supply alters over time for sugar.

The Shifts in World Sugar Supply Curves From 1980/81 to 2002/03



The Changes in Consumption After Liberalisation

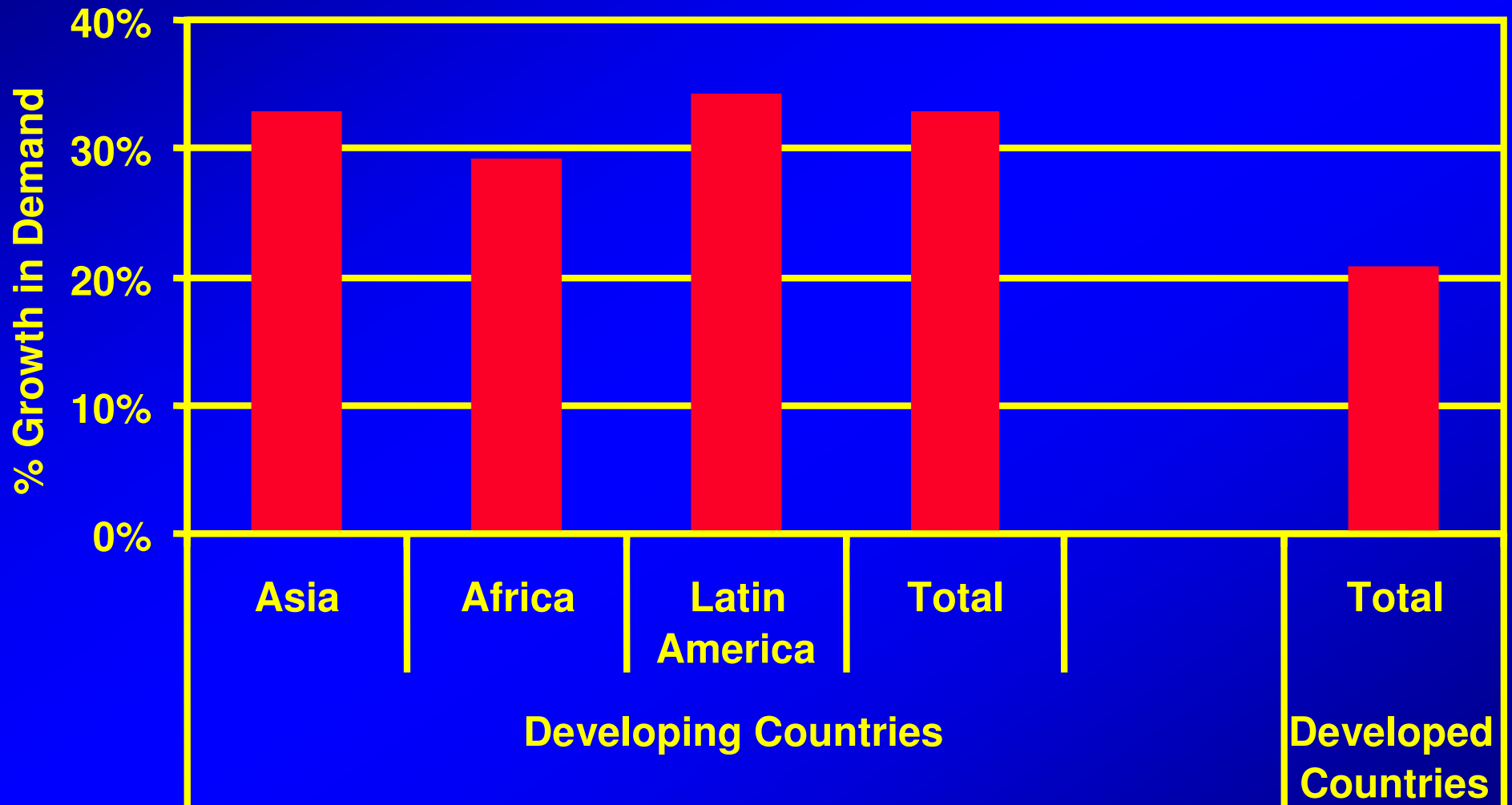
Liberalisation Lifts Demand Most in Low Income Countries

- Falls in prices for oils and meals following liberalisation stimulate demand worldwide.
- The strongest impact upon consumption is observed in low income countries.
- On average, oil demand grows over 30% in developing economies with liberalisation.
- Meal demand increases by over 40% in the developing countries.

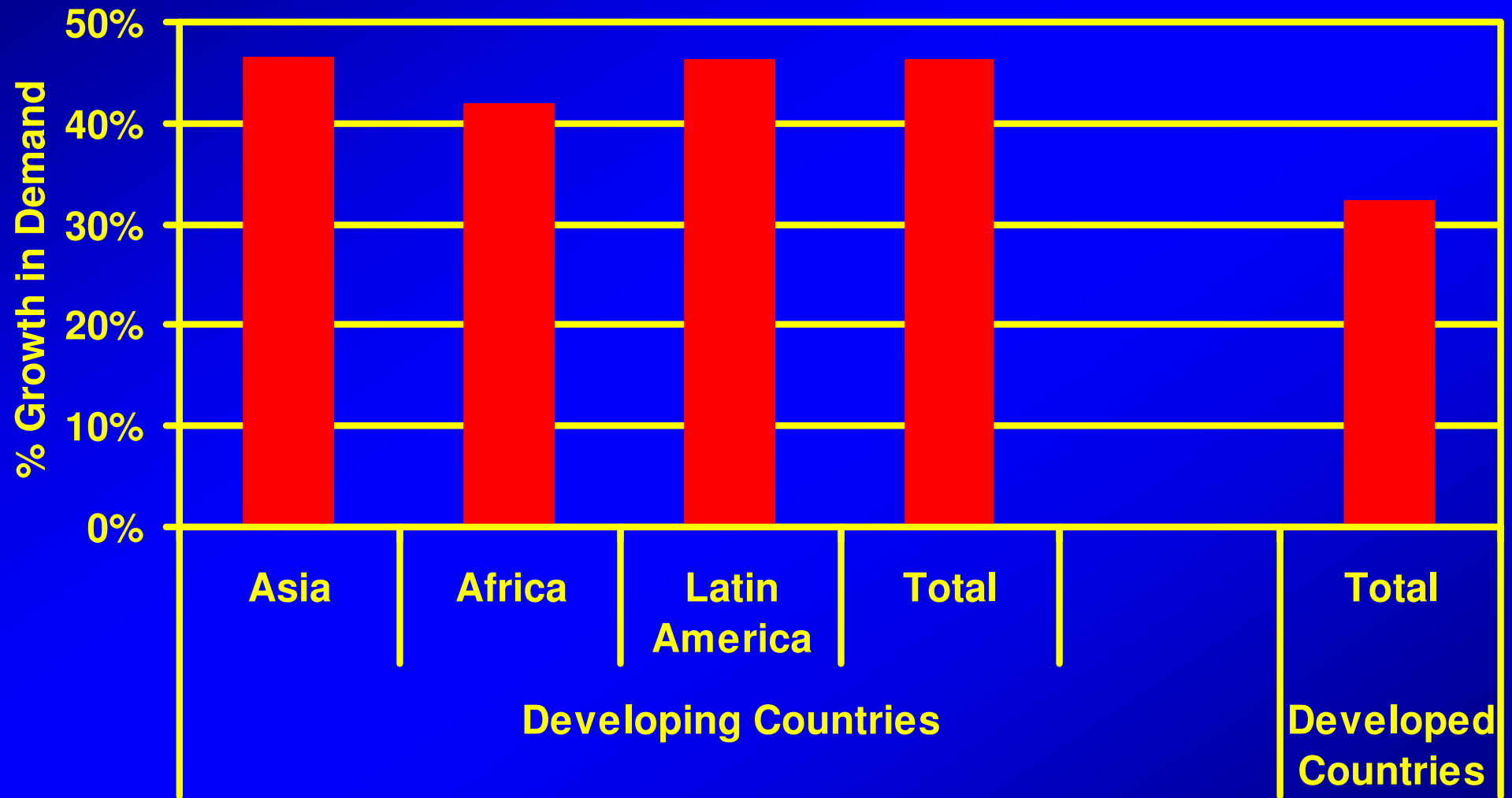
The Demand Boost Would be Particularly Strong in China

- In China, lower prices would lift domestic vegetable oil offtake 35%.
- Liberalisation would raise Chinese oilseed meal consumption by 54%.
- *Remember that these are the consequences of liberalisation where populations and world economies are steady at 2005 levels.*
- *Allowing them to grow would expand demand faster.*

Growth in Vegetable Oil Demand Following Liberalisation



Growth in Oilseed Meal Demand Following Liberalisation



The Changes in Production Following Liberalisation

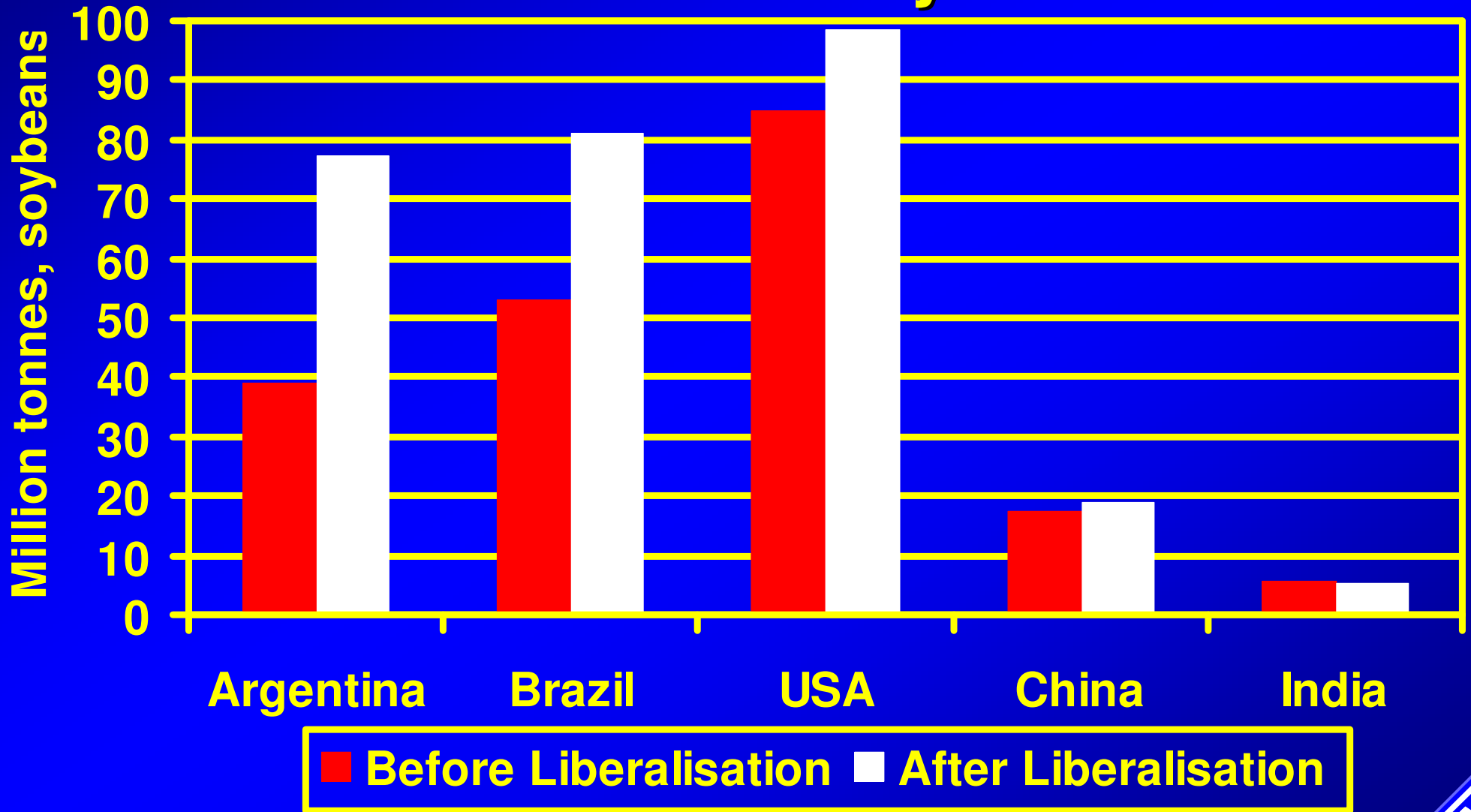
Impact of Ending Export Taxes and Maintaining Support for Biodiesel

- **The removal of export taxes would benefit Argentine, Russian and Ukrainian soybean and sunflower producers.**
- **Ending export taxes would also benefit palm oil suppliers in Malaysia and Indonesia.**
- **Continuing support to rapeseed oil prices from biodiesel demand would mean that combined Canadian and Australian seed output would approximately double following liberalisation.**

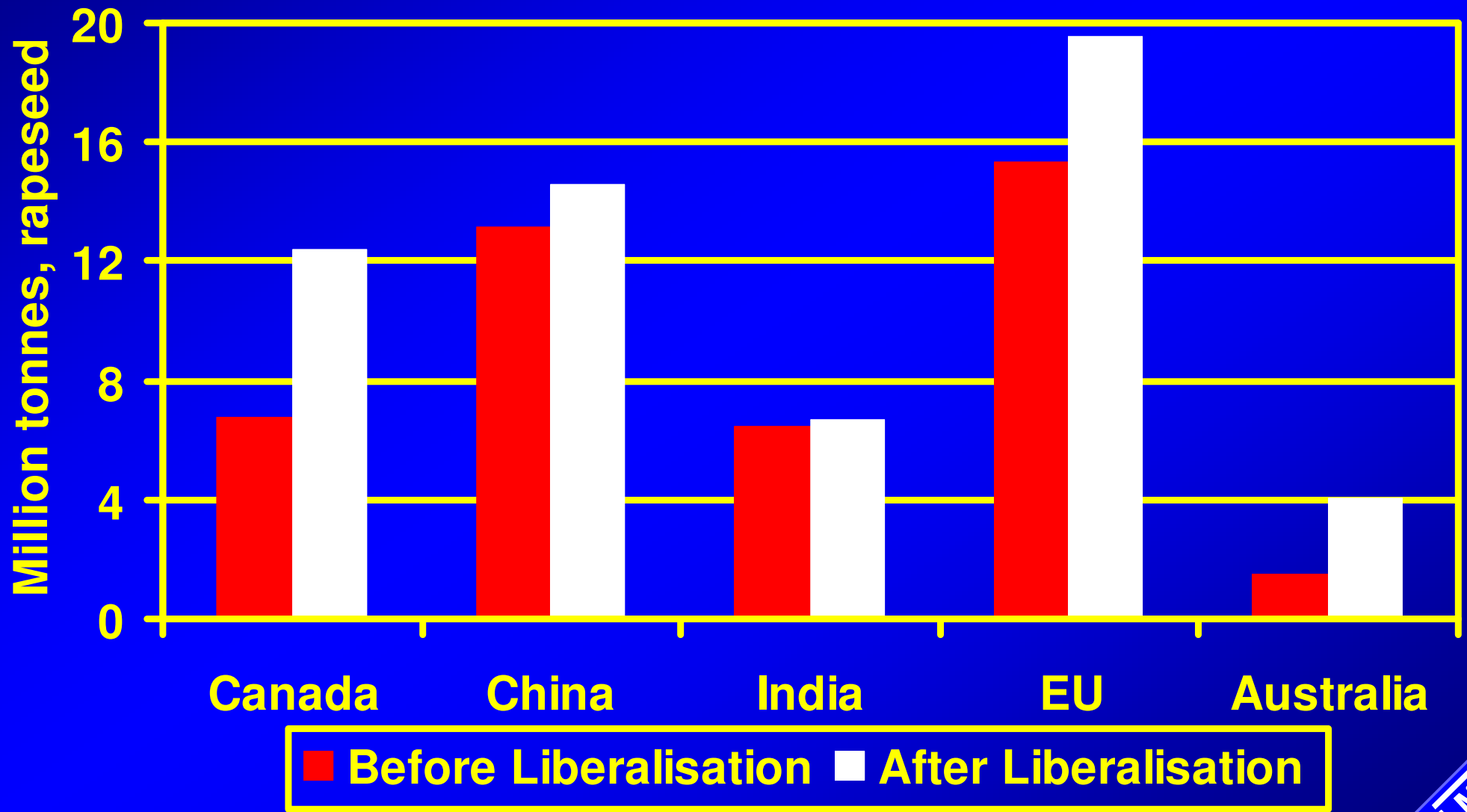
Oil and Meal Output Surge

- With the removal of the taxation of oilseed production and the opening up of import markets, global vegetable oil production would expand by 28% following liberalisation, with demand stimulated by the reduction in prices.
- The worldwide output – and consumption – of oilseed meal would expand by over 39%.
- All leading exporters of soybeans, rapeseed, sunflower and oil palm would expand their output after liberalisation, as demand grows and output shifts from higher cost areas.

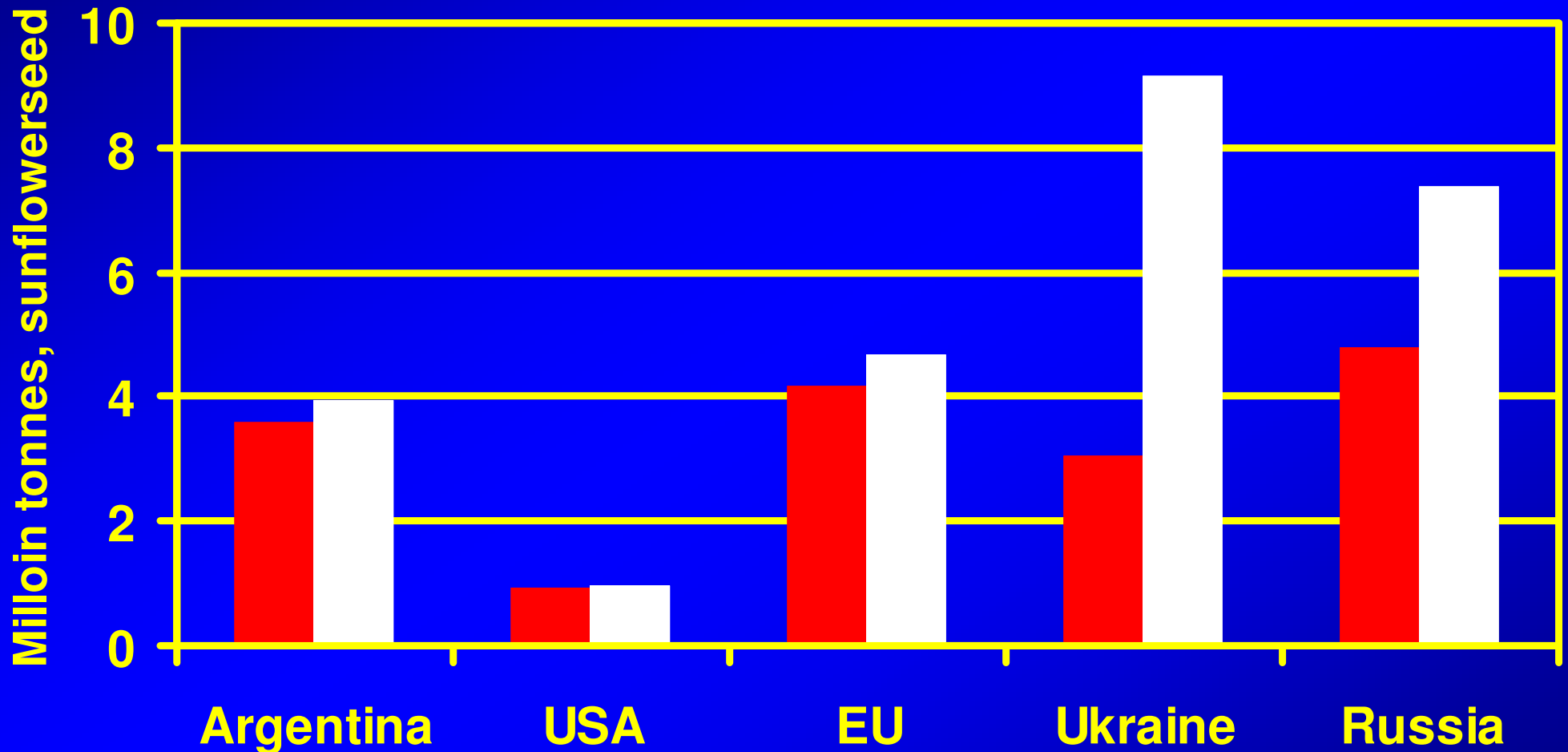
The Impact of Liberalisation on the Production of Soybeans



The Impact of Liberalisation on the Production of Rapeseed

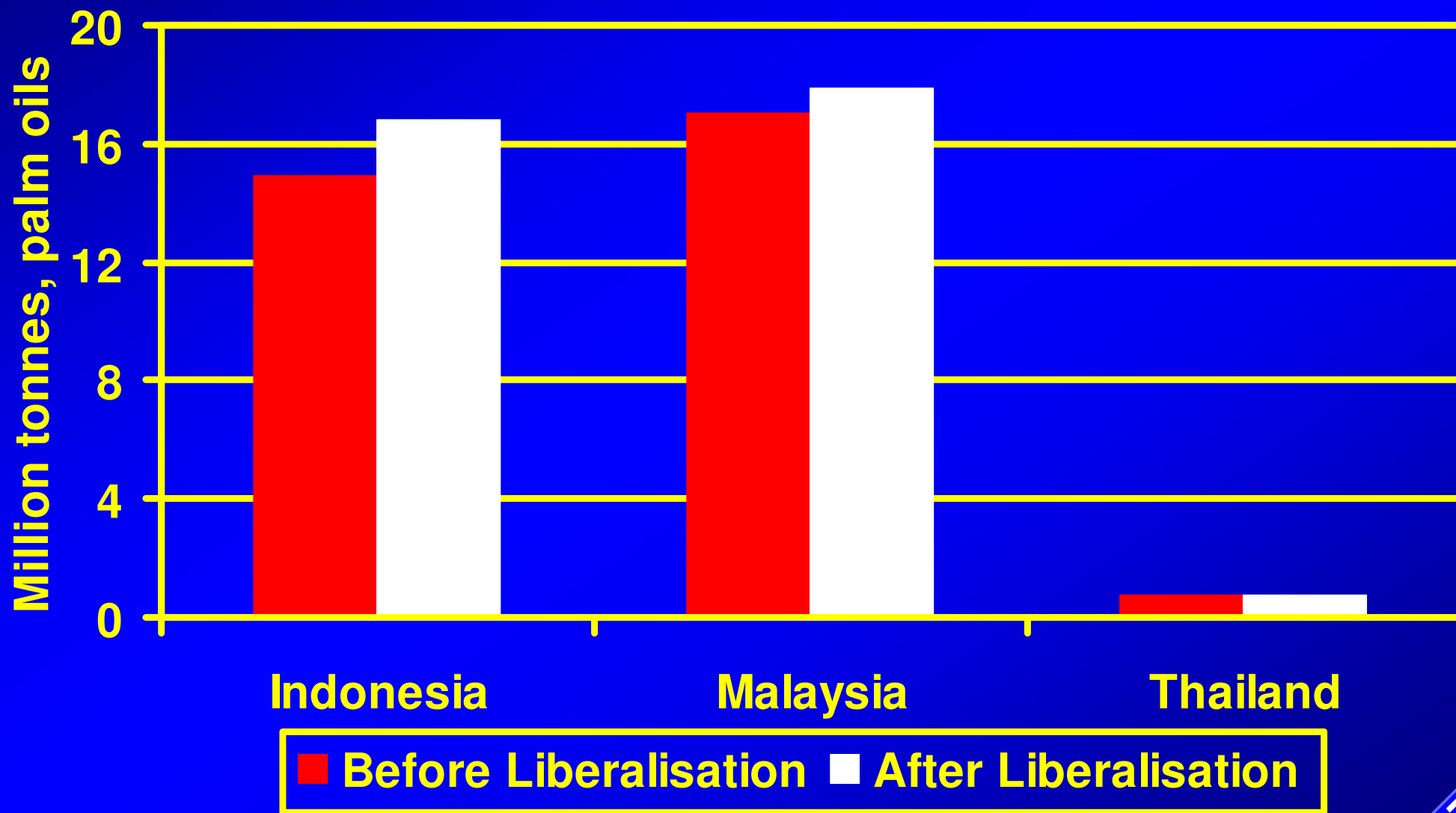


The Impact of Liberalisation on the Production of Sunflowerseed



■ Before Liberalisation ■ After Liberalisation

The Impact of Liberalisation on the Output of Palm & Palm Kernel Oils



The Changes in World Prices After Liberalisation

The Effect of Liberalisation

- When trade barriers are removed, producers now facing export taxes find oilseed output more profitable and expand their production.
- In importing countries with tariff and non-tariff protection, liberalisation cuts prices as well as local output, but stimulates demand, creating larger outlets for competitive exporters.
- The net effect is to increase the volume of low cost production and expand the world market for oilseed products.

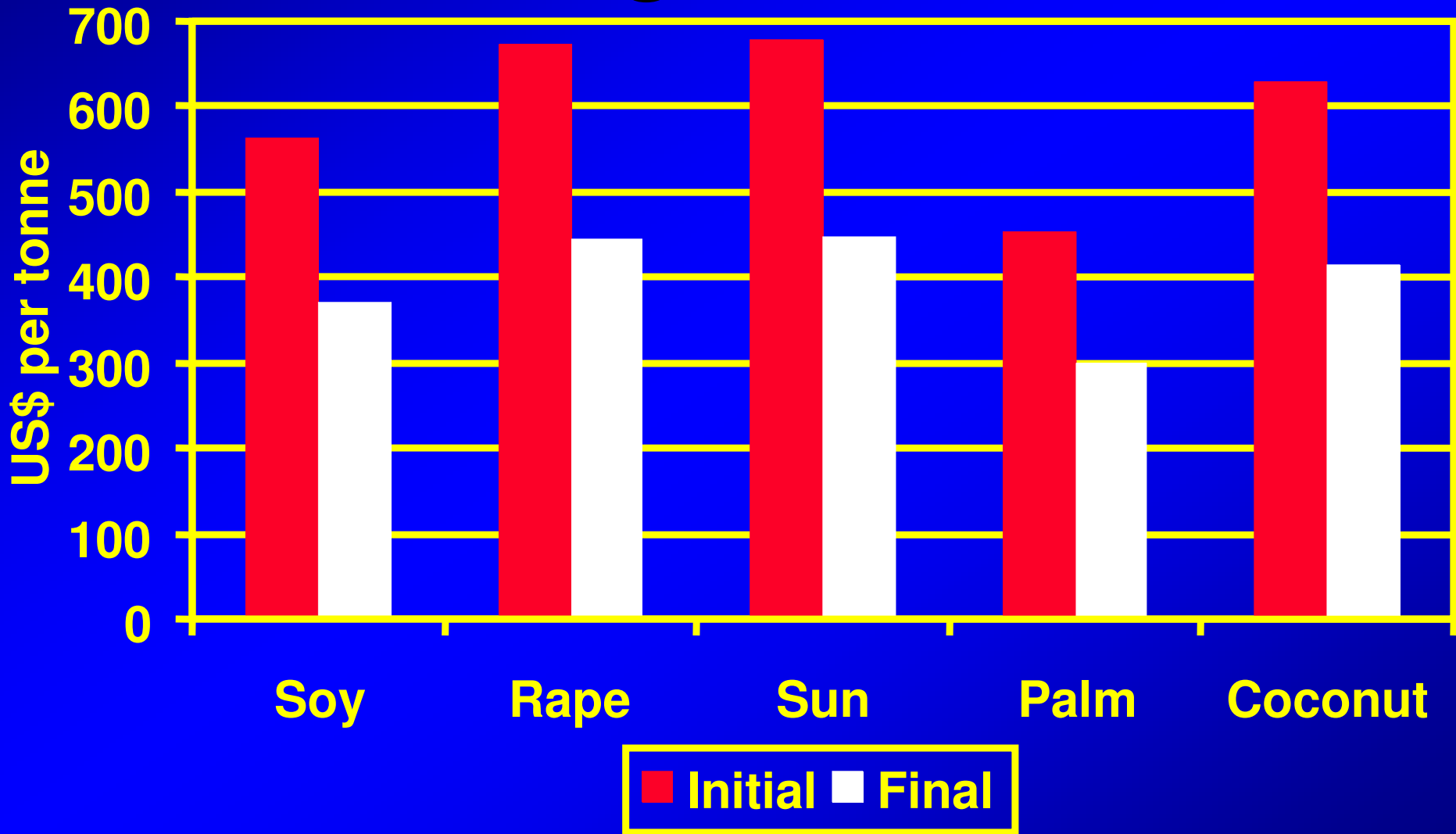
Implications for Prices

- Each year, in the model, prices settle at an equilibrium that balances output (boosted by growth in low cost producing areas) against the new demand for oil and meal.
- *Note 1: In a comparative static model, demand only grows because lower prices induce price-sensitive consumers to buy more.*
- *Note 2: By taking 2004/05 price relativities as a starting point, liberalisation would give a big boost to rapeseed and sun oil output; this has the effect of restricting growth in palm oil.*

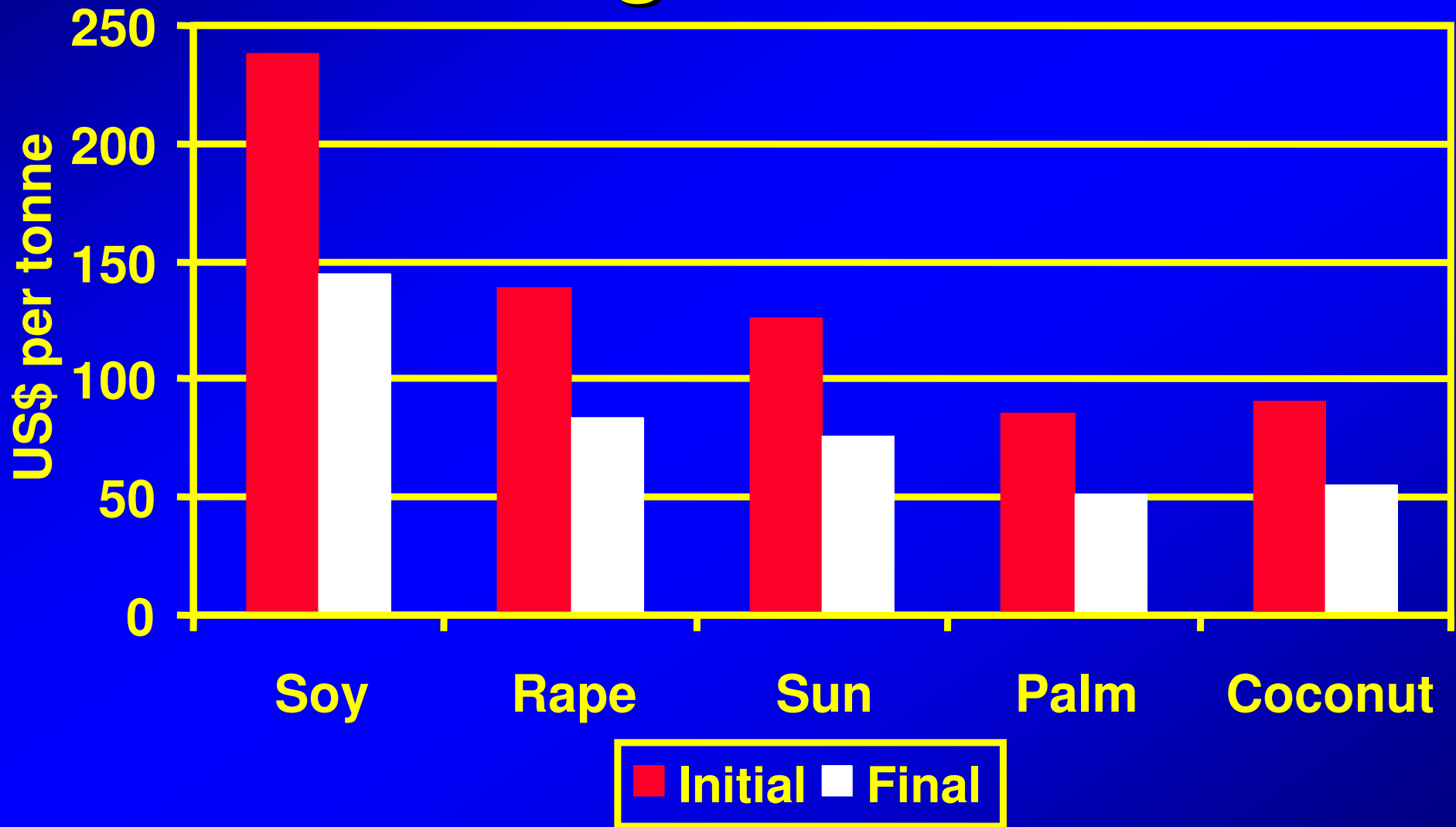
Oil and Meal Prices

- The simulations imply that, after allowing ten years for supply, demand and prices to adapt to liberalisation, the world prices of vegetable oils would decline by 34%.
- The stimulus to soybean production in South America in particular, alongside continued US deficiency payments, would cause meal prices to fall by almost 40% in the same period.

Changes in Vegetable Oil Prices Following Liberalisation



Changes in Oilseed Meal Prices Following Liberalisation



Changes in the Values of Production and Consumption After Liberalisation

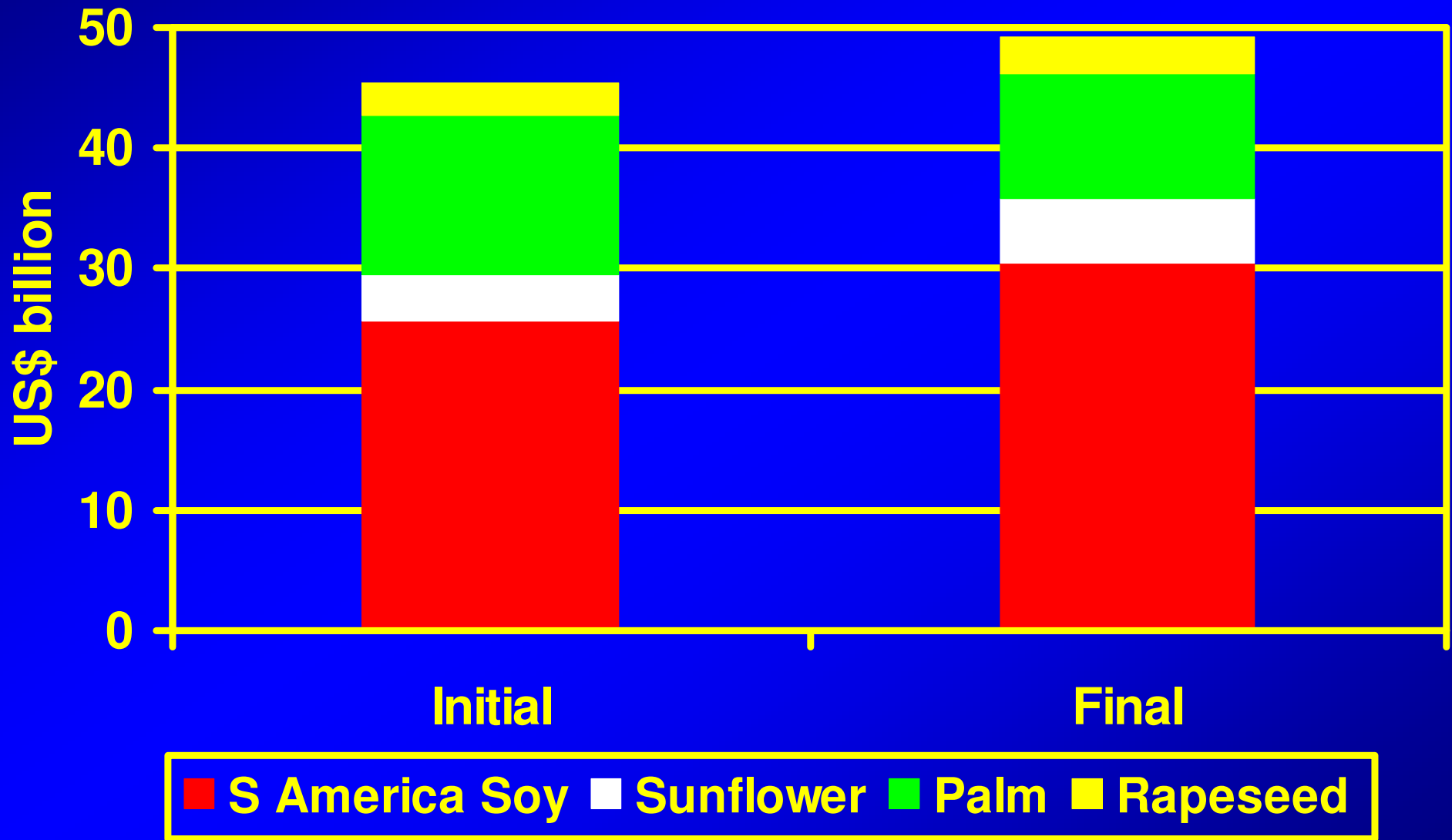
Incomes of Major Exporters Rise After Liberalisation

- The combination of output expansion and the elimination of export taxes is strong enough to offset the impact of low world prices on the incomes of major oil and meal exporters.
- The overall incomes of the world's major oil and meal exporters increase after liberalisation.

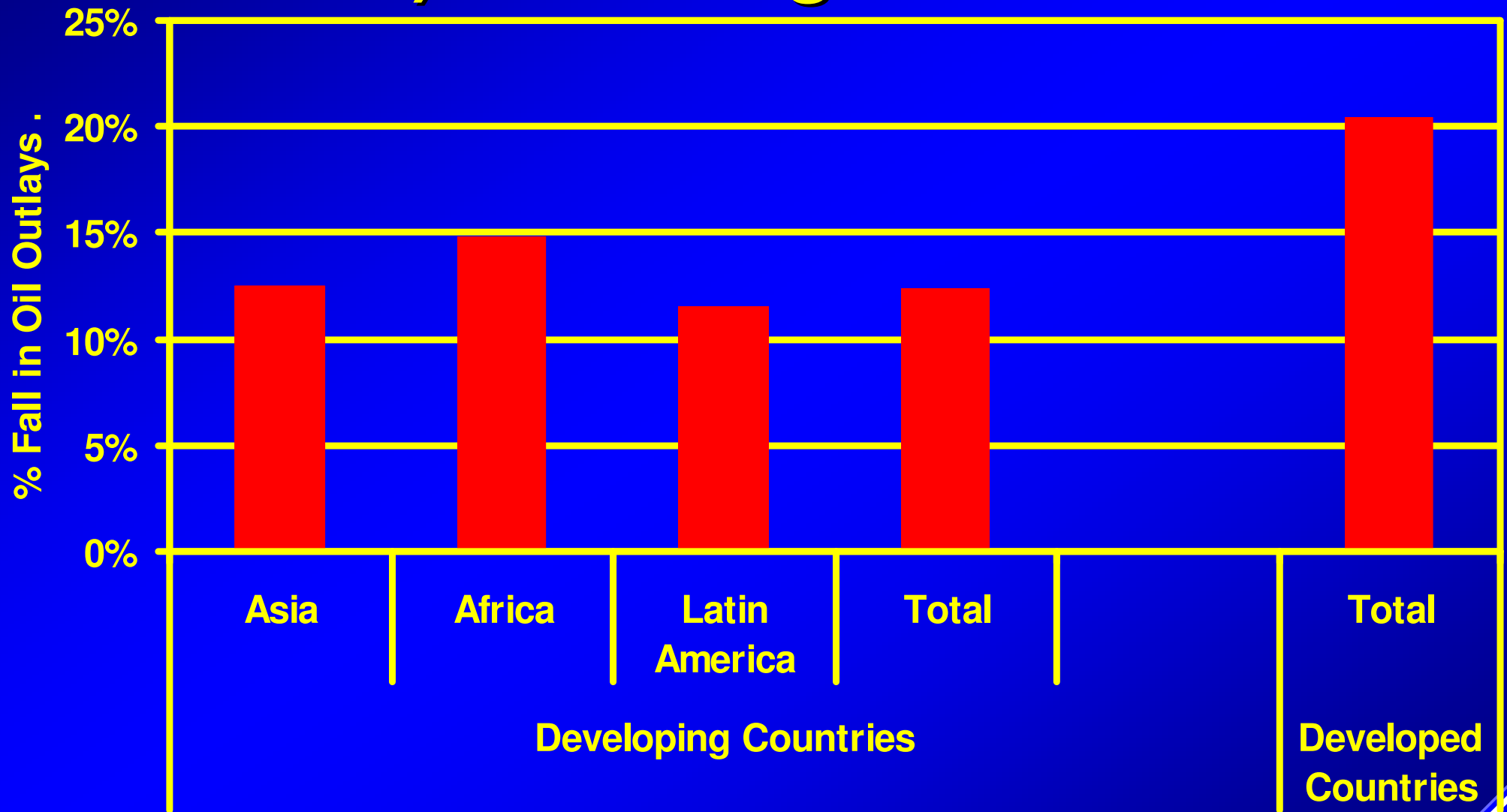
Oil and Meal Consumers Benefit Tremendously

- Consumers of oilseed products benefit in all respects from liberalisation.
- The prices that they pay for oil and meal are lower.
- Their overall oil and meal consumption volumes grow substantially.
- Yet their total expenditures on oils and meals decline.

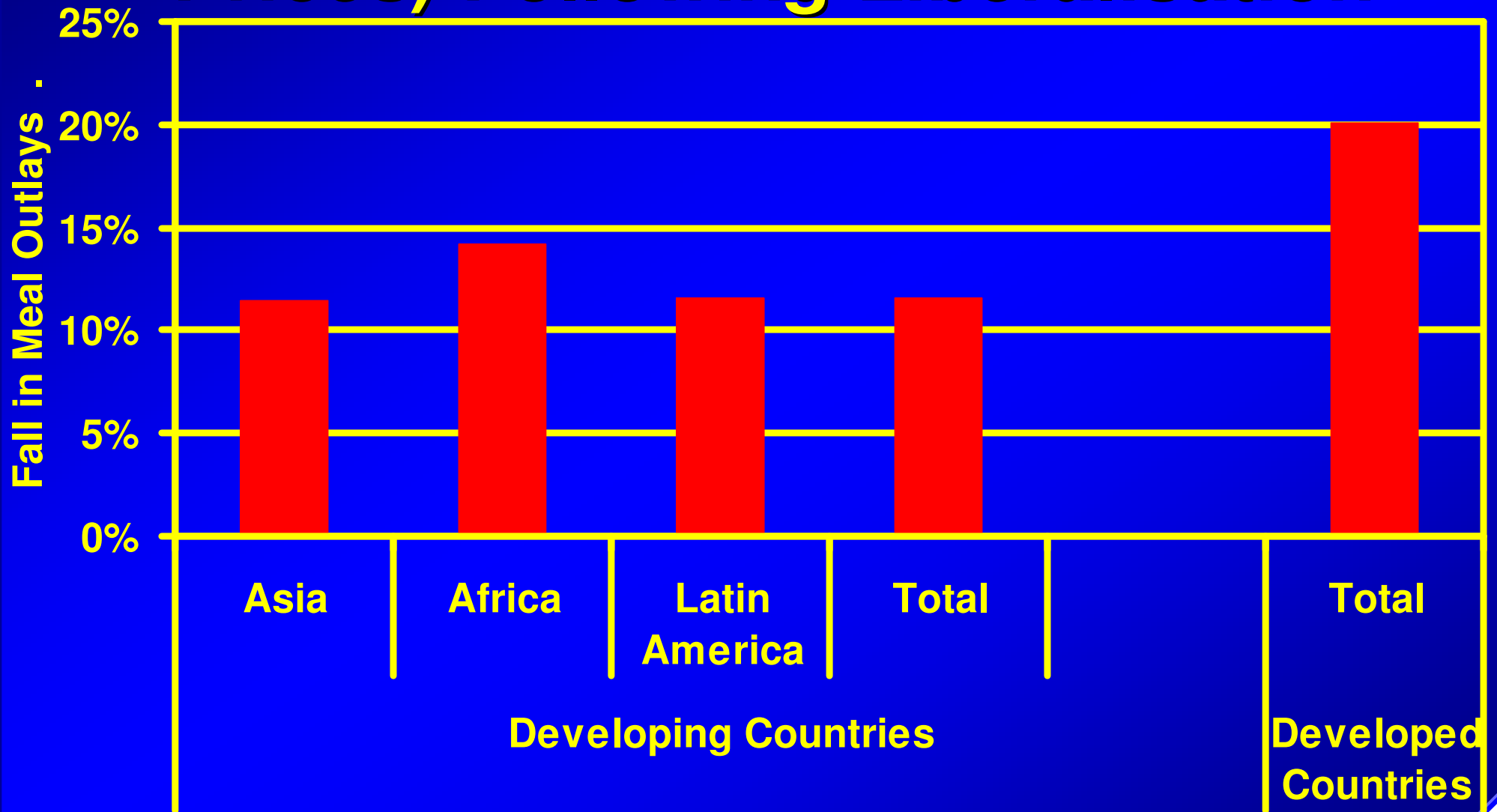
Growth in the Value of Output from Major Exporters after Liberalisation



Decline in Oil Expenditures (at World Prices) Following Liberalisation



Decline in Meal Expenditures (at World Prices) Following Liberalisation

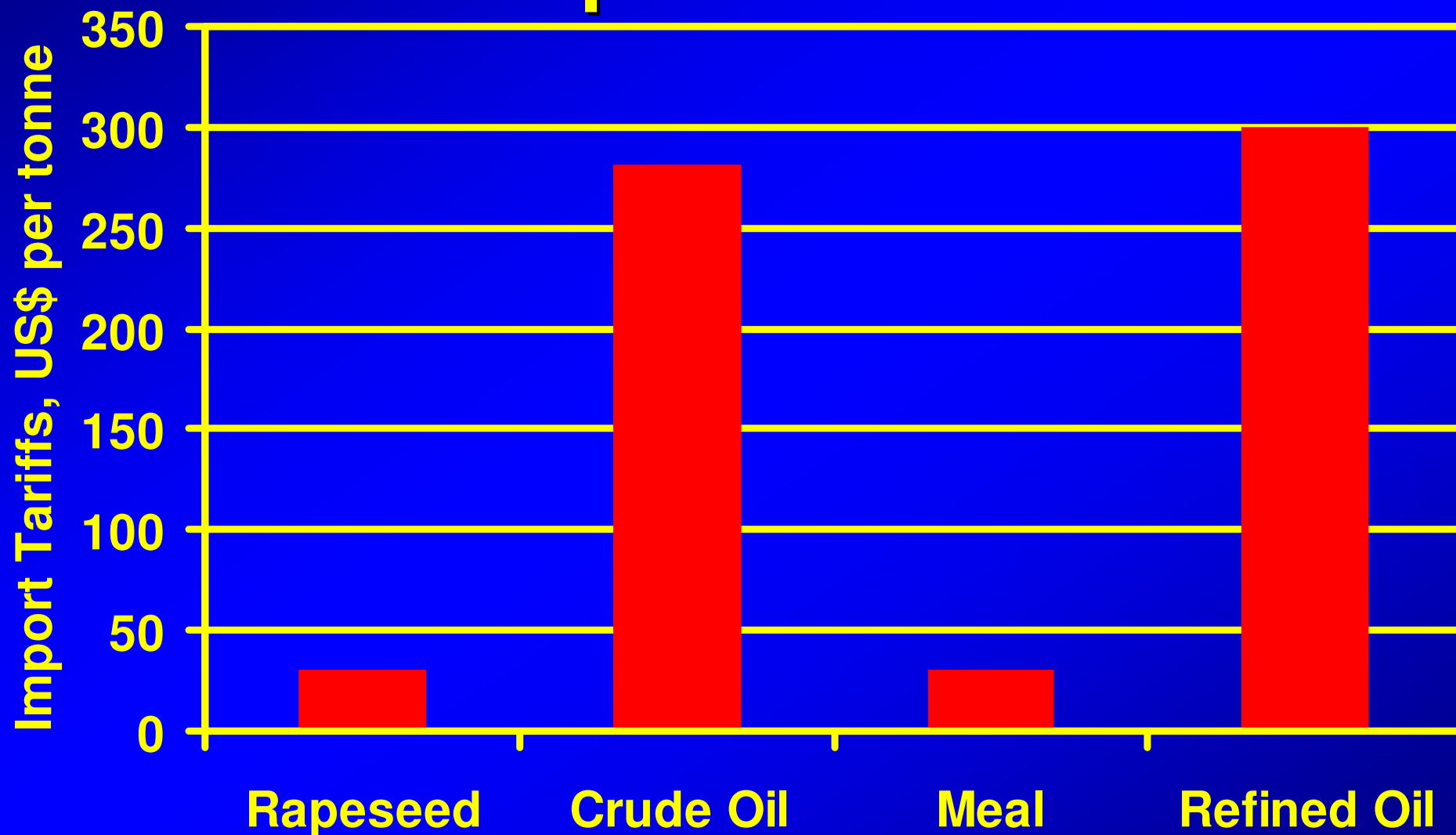


The Effects of Liberalisation on the Location of Crushing and Refining

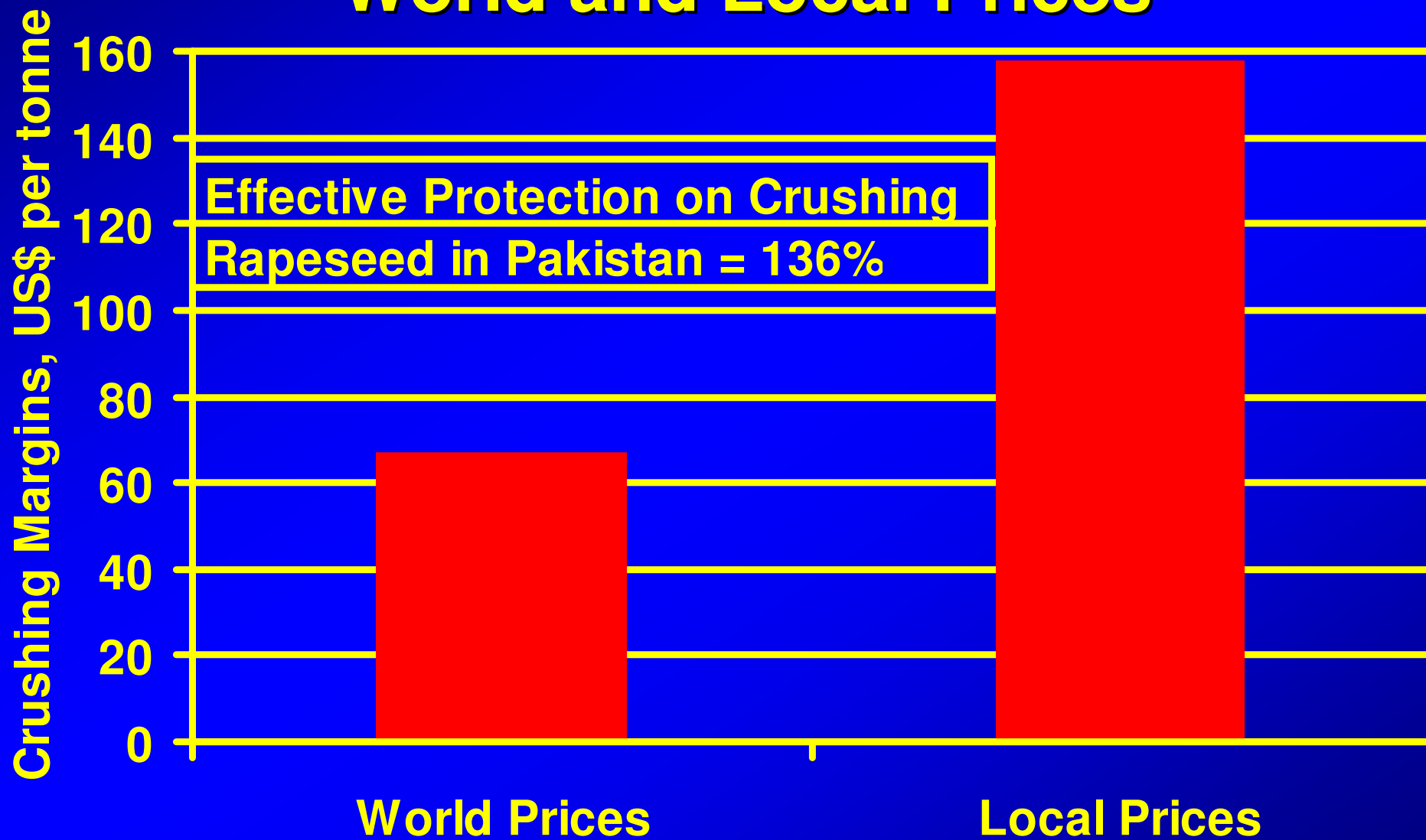
Import Tariffs and Export Taxes Both Protect Processors

- Escalating import tariffs, that rise with the level of processing, provide protection for processors in importing countries
- Differential export taxes, which are higher for less highly processed raw materials than for the final products, are a significant means of assisting processors in exporting countries.
- A level playing field would transform the economics of processing in many countries.

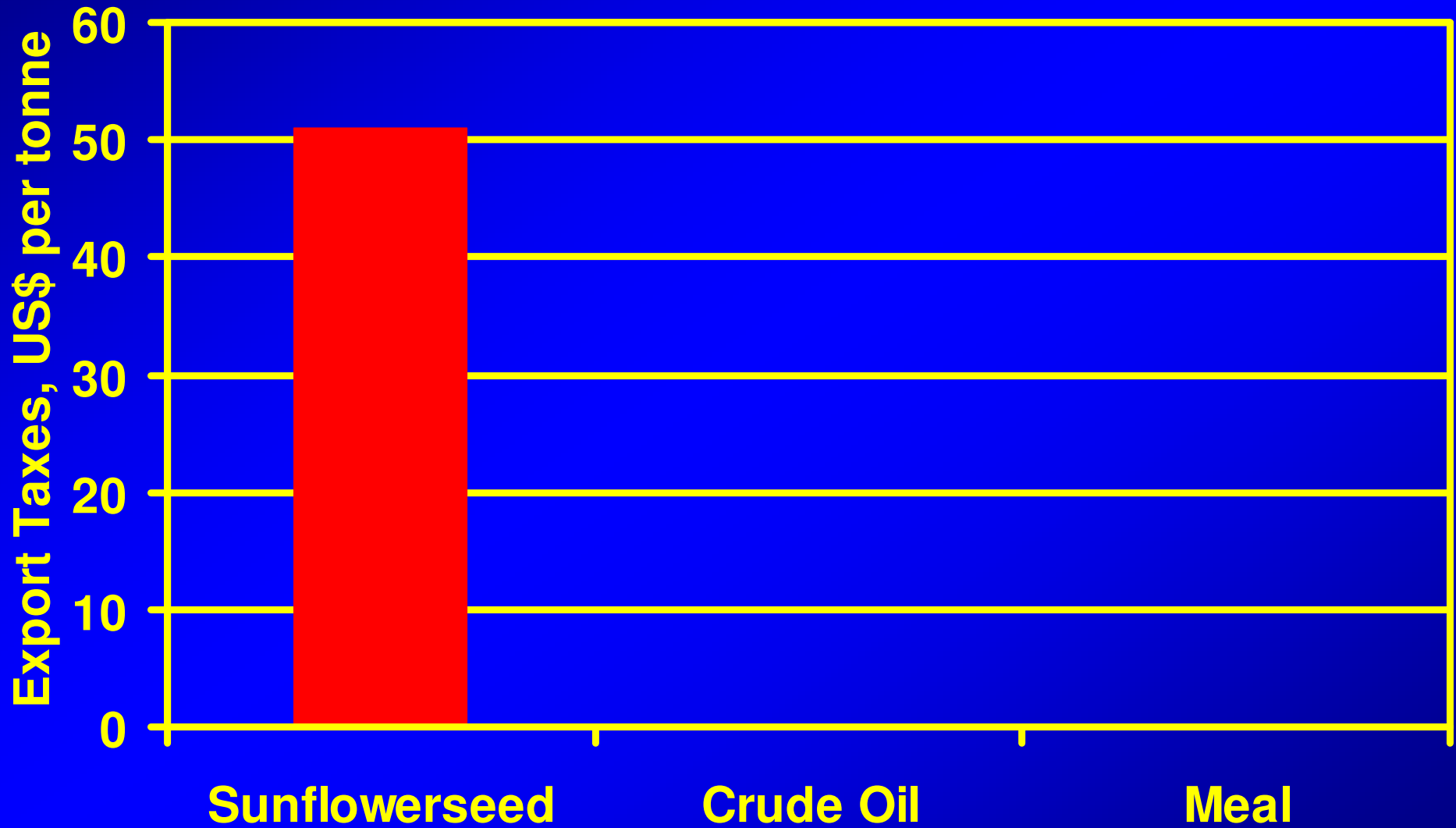
Pakistani Import Tariffs on Rapeseed and Rapeseed Products



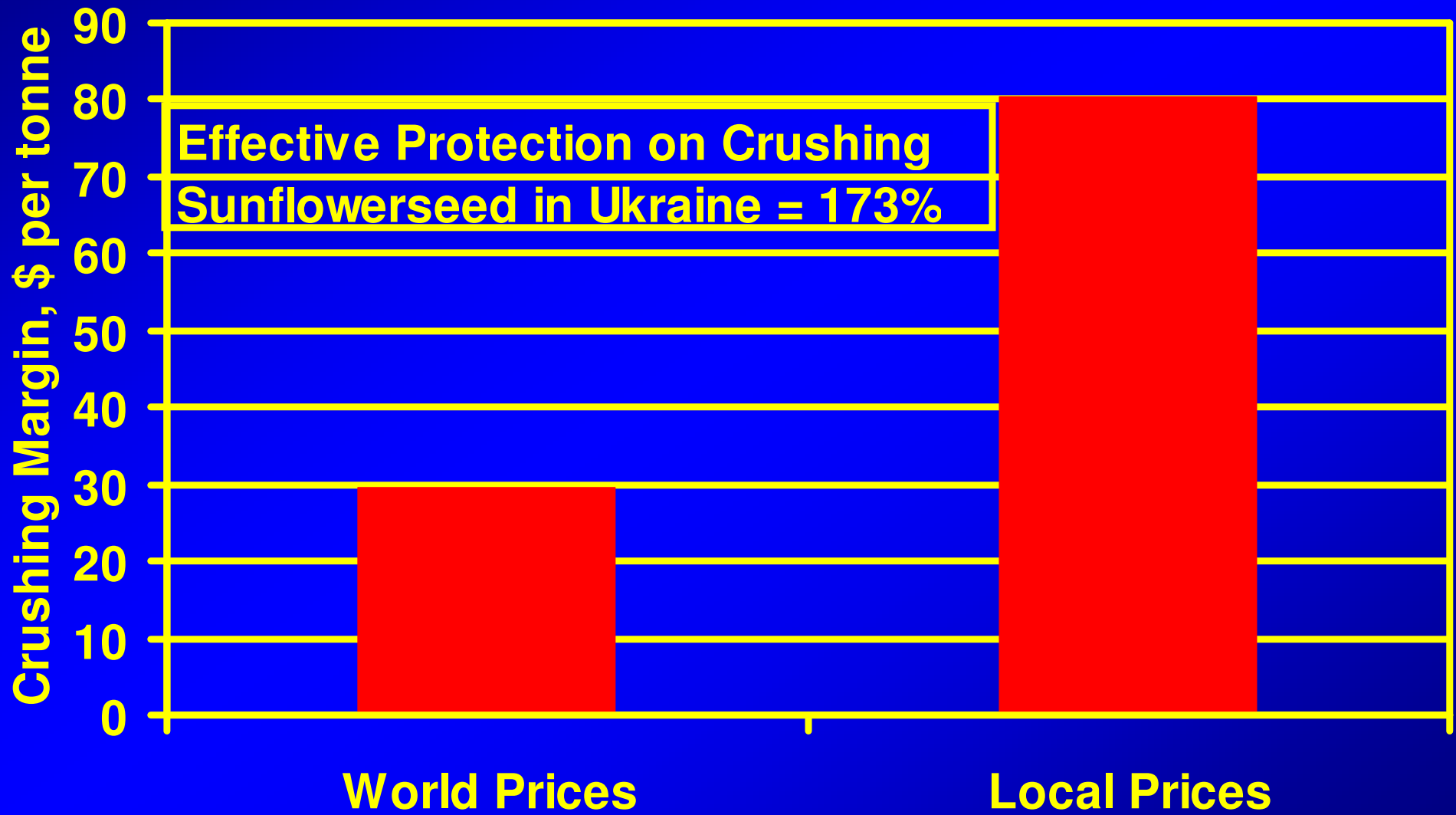
Pakistani Rapeseed Crushing Margins at World and Local Prices



Ukrainian Sunflowerseed and Sunflower Product Export Taxes



Ukrainian Sunflowerseed Crushing Margins at World and Local Prices



Crushing and Refining in a Liberalised World

- In the absence of import tariffs or export taxes, the profitability of crushing and refining is determined by:
 - A country's export/import status in oilseeds, oils and meals;
 - Ocean freight costs of seeds and products;
 - The scale and production costs of local processors.

Liberalised Crushing & Refining

- Liberalisation would increase the role of origin crushing; the major exception to this is modern large scale coastal soybean crushers in China.
- The removal of all import tariffs and export taxes on crude and refined palm oil would lead to the concentration of virtually all CPO refining activity in exporting countries in South East Asia.

Key Conclusions - 1

- Comparative statics allow us to assess directly the effect of liberalisation unaffected by the consequences of economic growth.
- Liberalisation lowers world seed, oil and meal prices, and raises output appreciably,
 - a) By raising the prices paid to producers who currently face export taxes,
 - b) Putting pressure on high cost producers to cut back production, and
 - c) Facilitating growth of low cost producers.

Key Conclusions - 2

- The biggest winners from liberalisation among producers would be those who currently pay export taxes.
- The largest beneficiaries among users are consumers in low income countries.
- They would enjoy major gains in their consumption of both meals and oils, and yet, would not have to increase their spending on oil and meal purchases.