

Deutsch-Brasilianisch Wirtschaftstage 2008



Changes in Automotive Industry: New Markets – Different Technologies?

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President Anfavea



Cologne, August 25th, 2008



Brazil represents social, cultural and environmental diversity



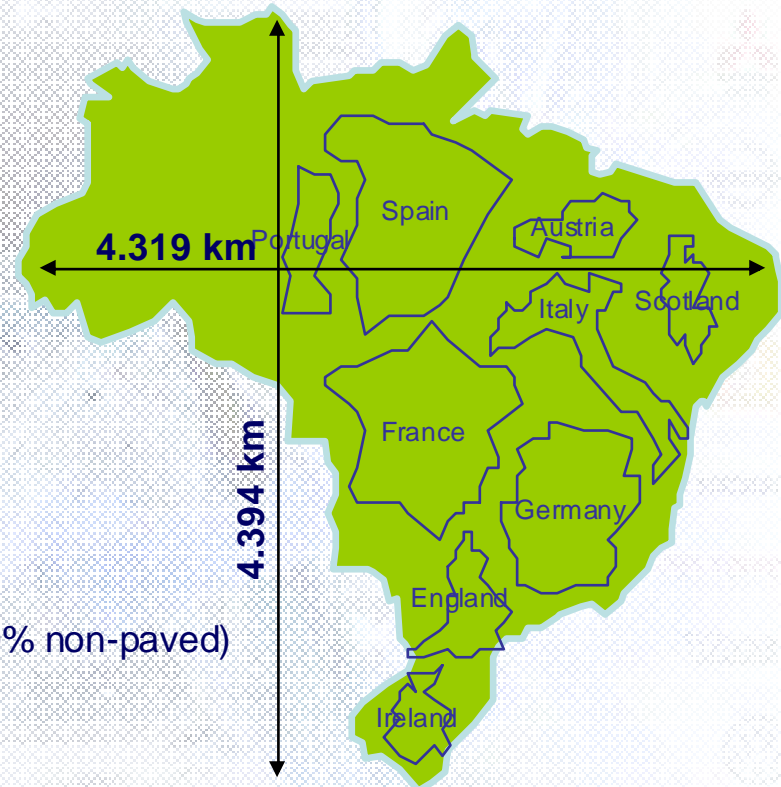


Brazil is the largest country in the Latin American and the 5th in the world



Geographical key figures

Total Area :	8.547.403 km ²
Population:	189,4 Millions (2007)
• Distribution:	Urban (81%), Country (19%)
• Demographic Density :	20 inhabitant/Km ²
• Geographic Distribution:	43% - Southeast 28% - Northeast 15% - South 8% - North 7% - Middle-West
Boundary:	14.691 Km
Coastline:	7.491 Km
Active Fleet MBBras:	671.500 units
Total of Roads:	1.980.000 Km (10% paved, 90% non-paved)





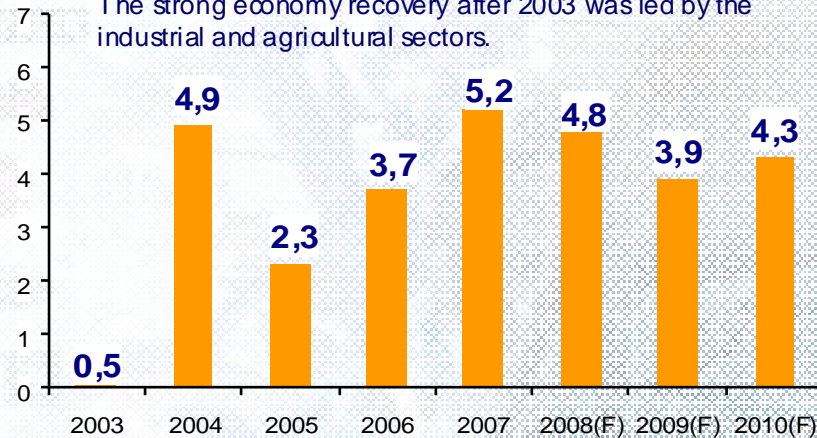
Macroeconomic conditions have improved substantially in Brazil during the past years



◆ Economical key figures

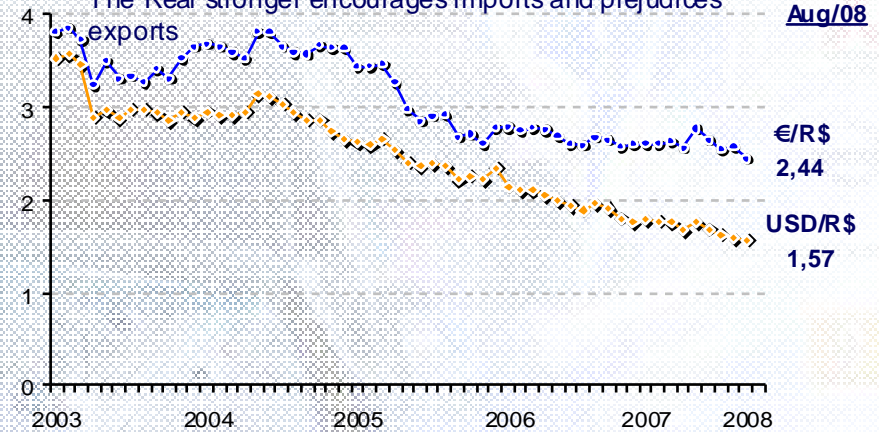
GDP (PIB) - %

The strong economy recovery after 2003 was led by the industrial and agricultural sectors.



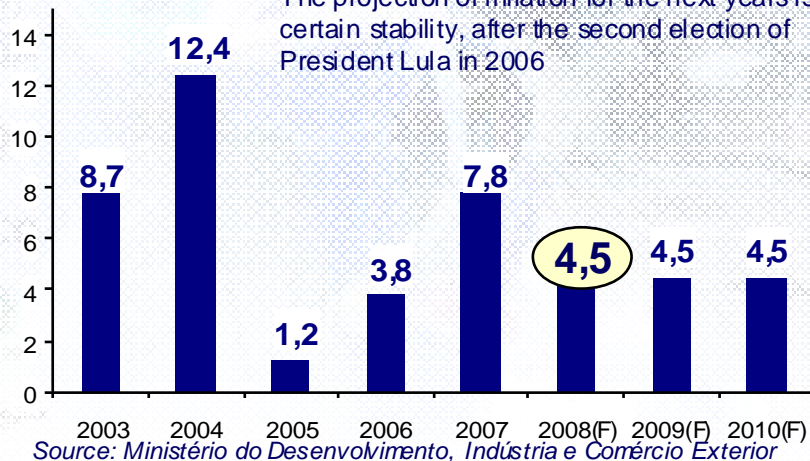
Exchange Rate (US\$ / €)

The Real stronger encourages imports and prejudices exports



Inflation (%) - IGPM

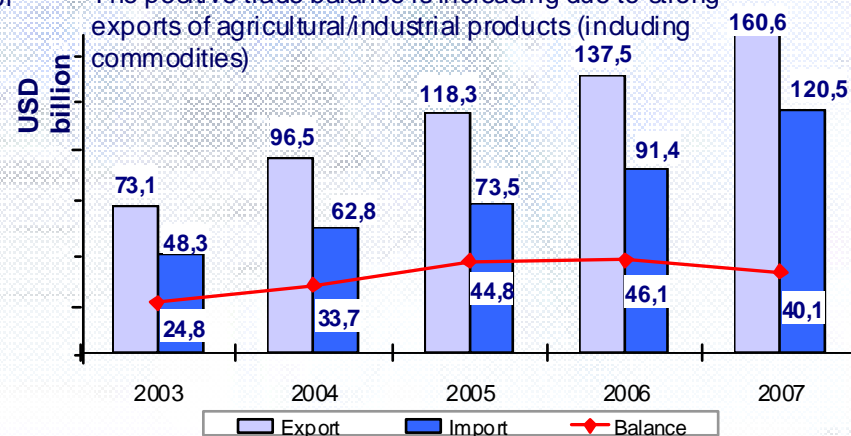
The projection of inflation for the next years is of certain stability, after the second election of President Lula in 2006



Trade Balance

Currency: Real - R\$

The positive trade balance is increasing due to strong exports of agricultural/industrial products (including commodities)





Brazilian Economy



❖ Economic Profile

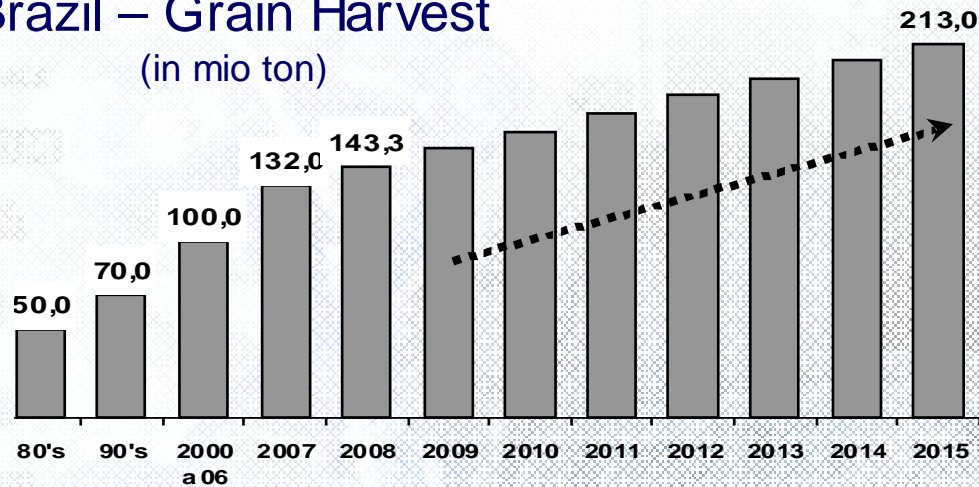
- ❖ GDP (2007): US\$ 1,314 billions
- ❖ GDP per capita (2007): US\$ 6.939
- ❖ Unemployment rate (June/08): 7,8%
- ❖ Main export products:
 - ❖ Petroleum oils, iron minerals, soy, coffee, airplanes, automobiles
- ❖ Main imported products:
 - ❖ Petroleum, naftas, automobiles, copper, gas

❖ Agricultural Overview



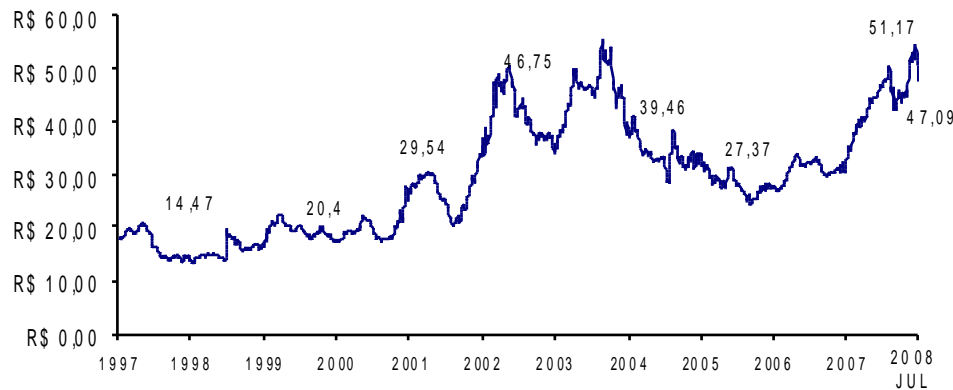
- ❖ Total area: 850 mio ha
- ❖ Farmable area: 383 mio ha
- ❖ Cultivated area: 63 mio ha
- ❖ Main products: soy, corn, sugar cane, beans, orange

Brazil – Grain Harvest (in mio ton)



Source: CONAB jun/08

Soy's Price Development



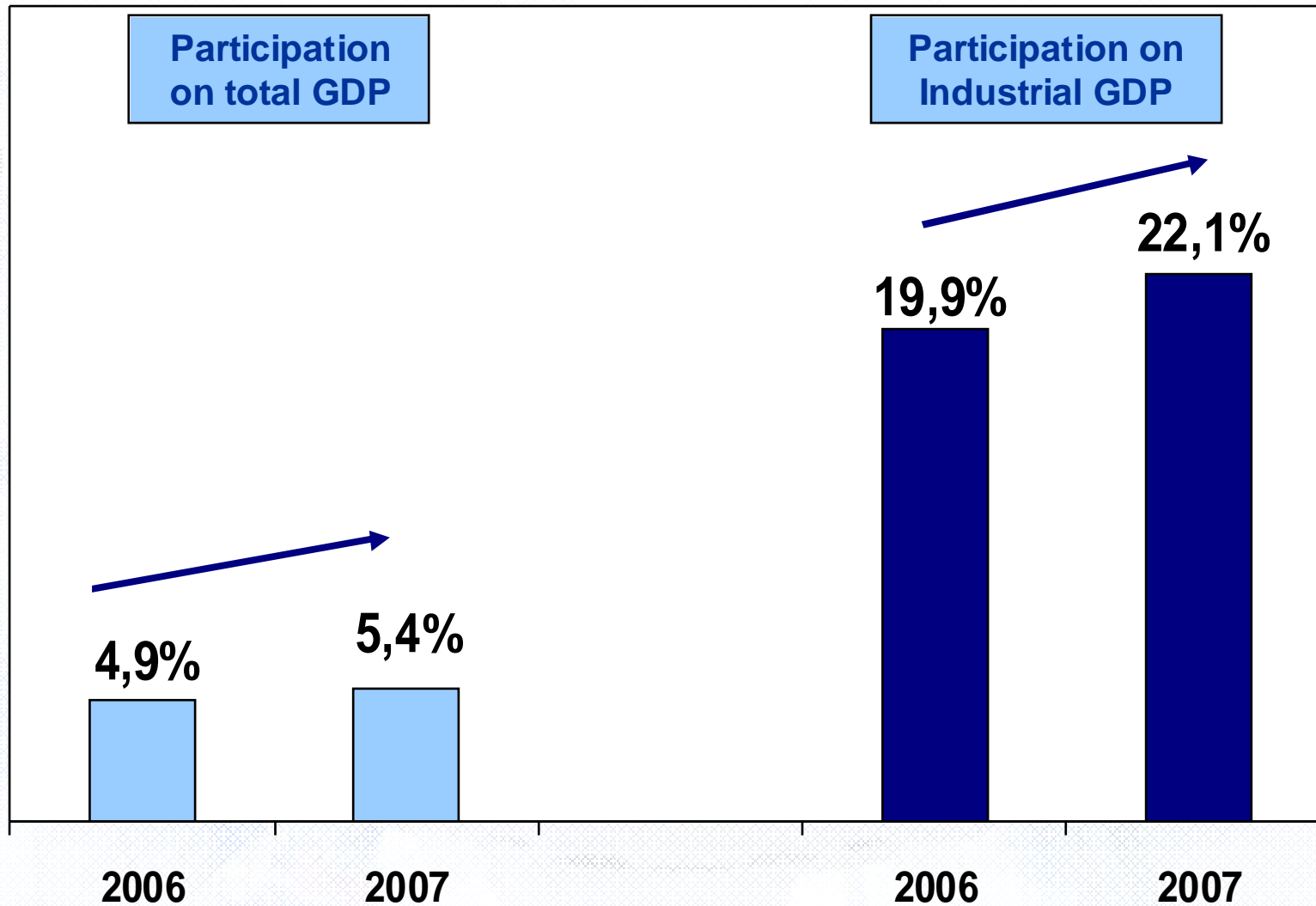
Source: CEPEA

- ❖ Brazil is pointed out as a large producer of food to supply the world growing demand.
- ❖ Use of corn to produce ethanol has increased in USA and tends to grow (impact in Brazilian corn export)
- ❖ 143 million ton. mean 3.625.000 of heavy duty trucks travels.
- ❖ Increase of soy's price amid a growing demand show a investor market
- ❖ Commodities prices has risen meaningfully in the last couple of years and has stimulated the sector.

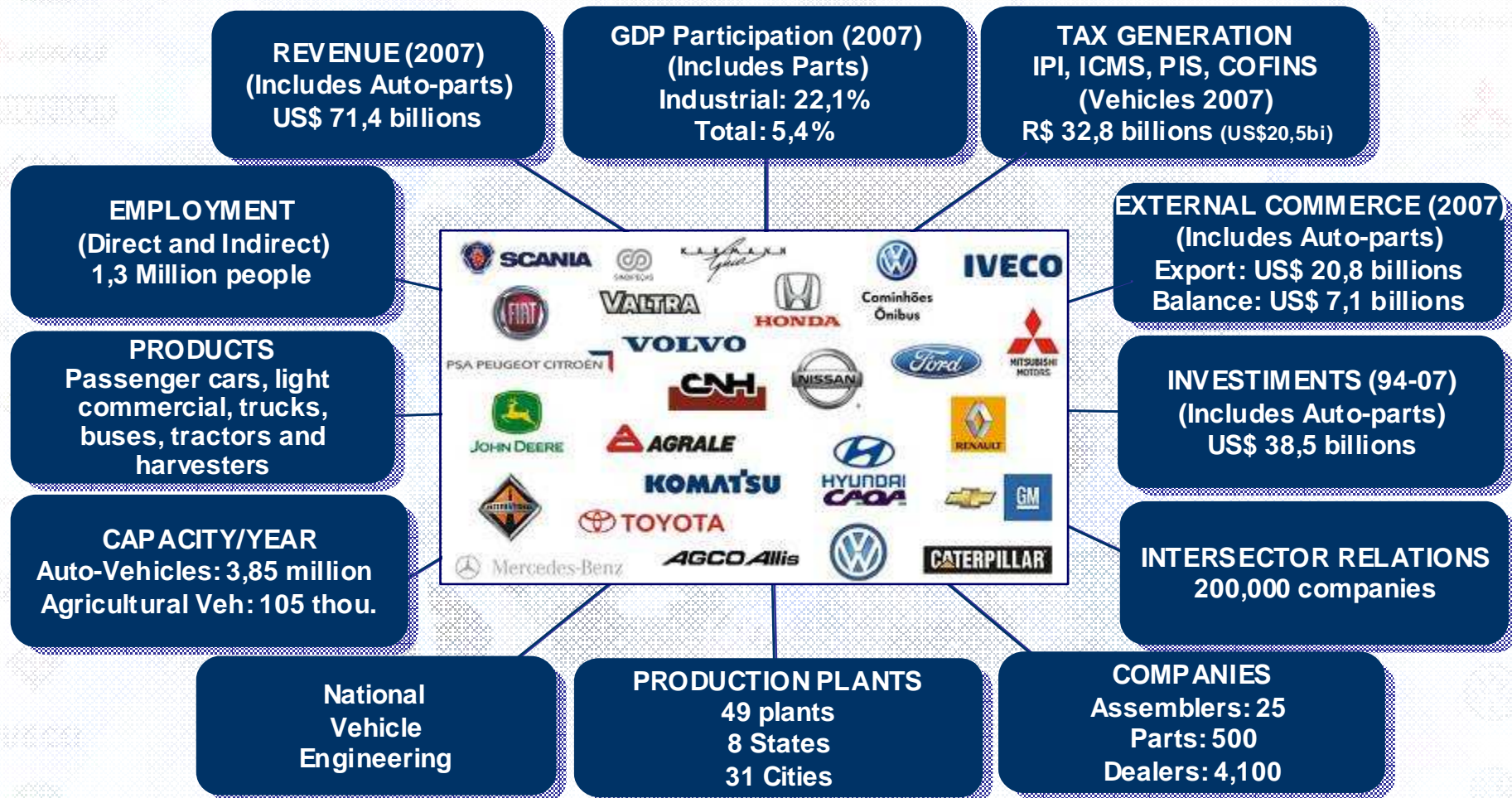
Automotive Industry Dimension



Automotive Sector – Industrial Presence



Obs.: Calculation based on real level 2007(IGP and dollar)

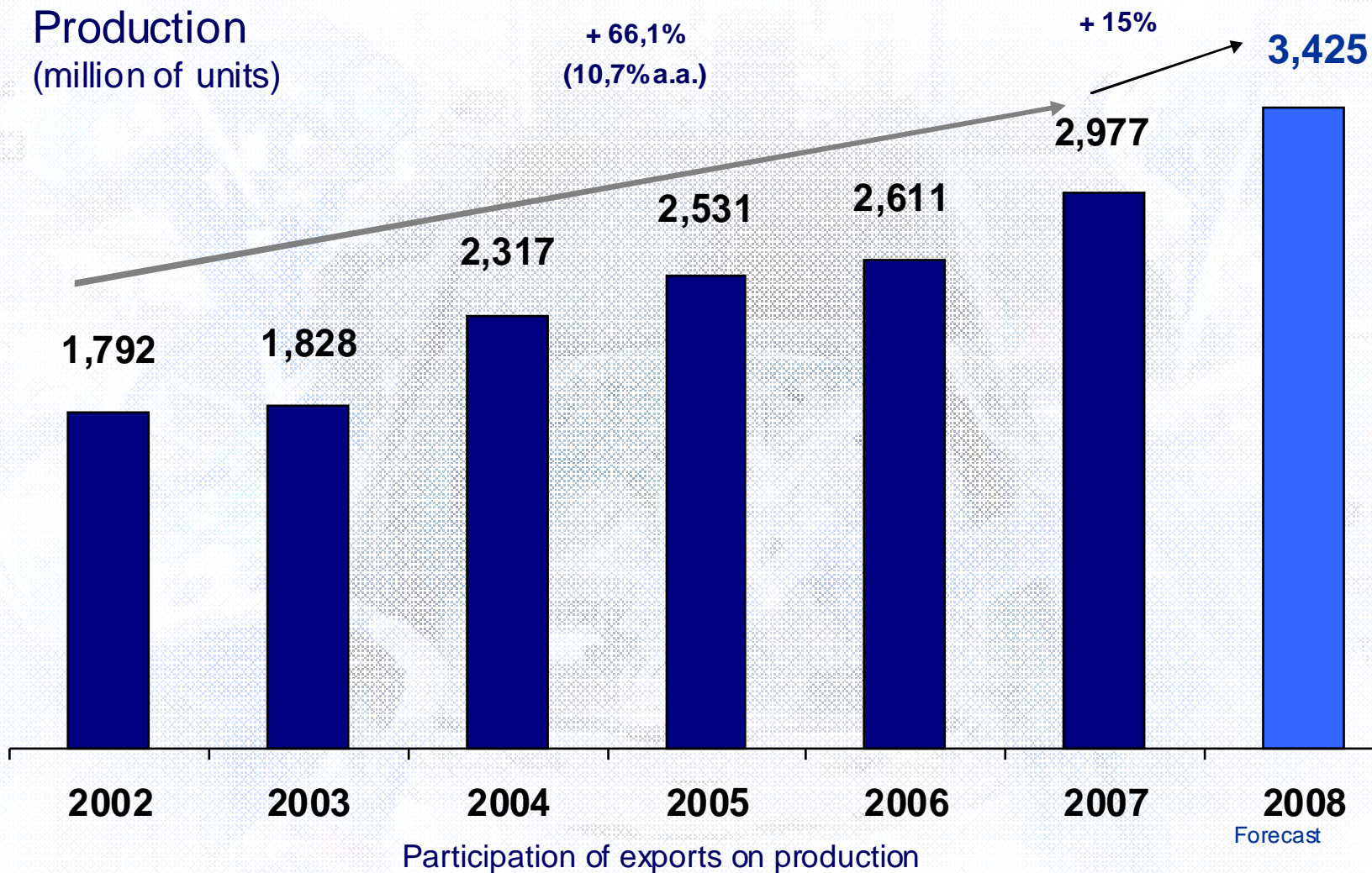




Production and exports Performance 2002 to 2007



Production
(million of units)



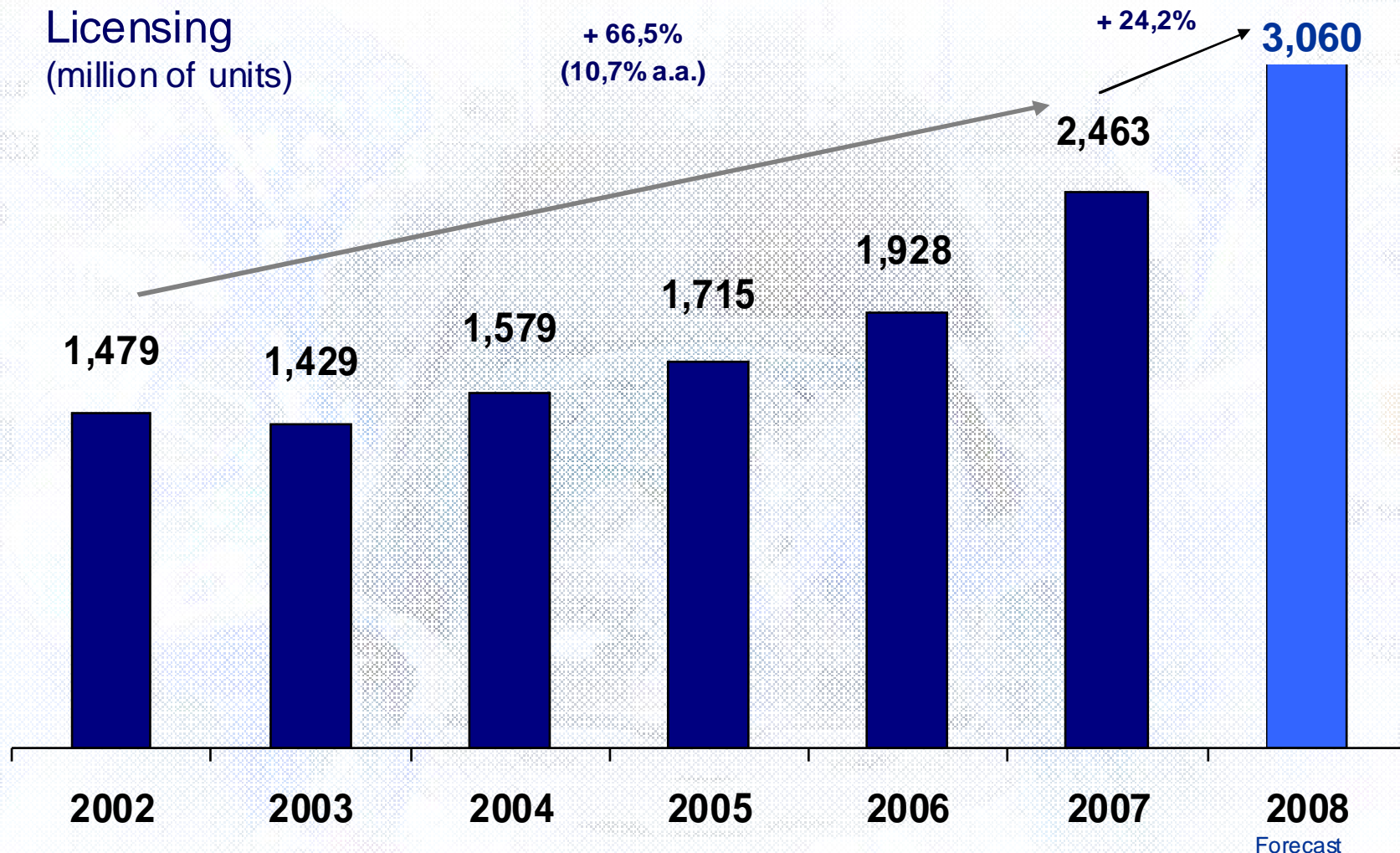
23,7%	29,3%	32,7%	35,5%	32,3%	26,5%
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Automotives Licensing 2002 to 2007



Licensing
(million of units)



Participation of imports on licensing

7,8%	5,2%	3,9%	5,1%	7,4%	11,2%	13,5%
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Growth Reasons



	June '07	June '08	Delta
Credit Volume * Surplus (R\$ billions)	90,4	129,8	43,6%
Interest Rate** (% per year)	19,4	21,7	2,3 p.p.
Insolvency (superior to 90 days)	3,2%	3,6%	Obs.: All Goods = 7,0%
Wage Mass - Real (R\$ Billions)	23,0	26,5	15,2%
Unemployment Rate (%)	9,7	7,8	- 1,9 p.p.

* Includes leasing

** Interest rates from ANEF to CDC

Sources: Central Bank, IBGE

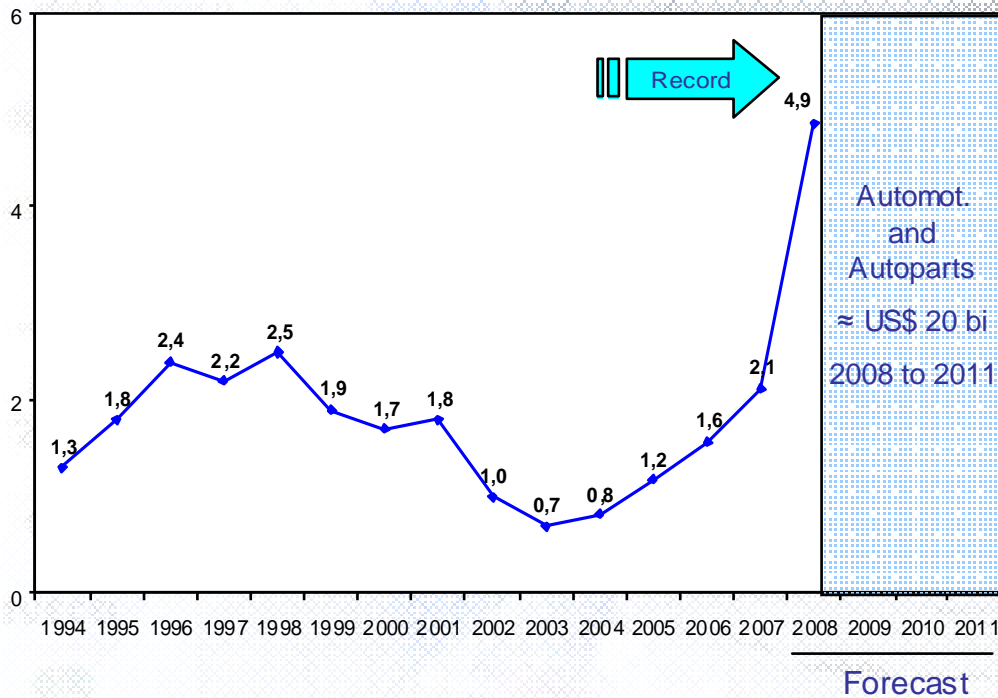
Investments and capacity



Automakers

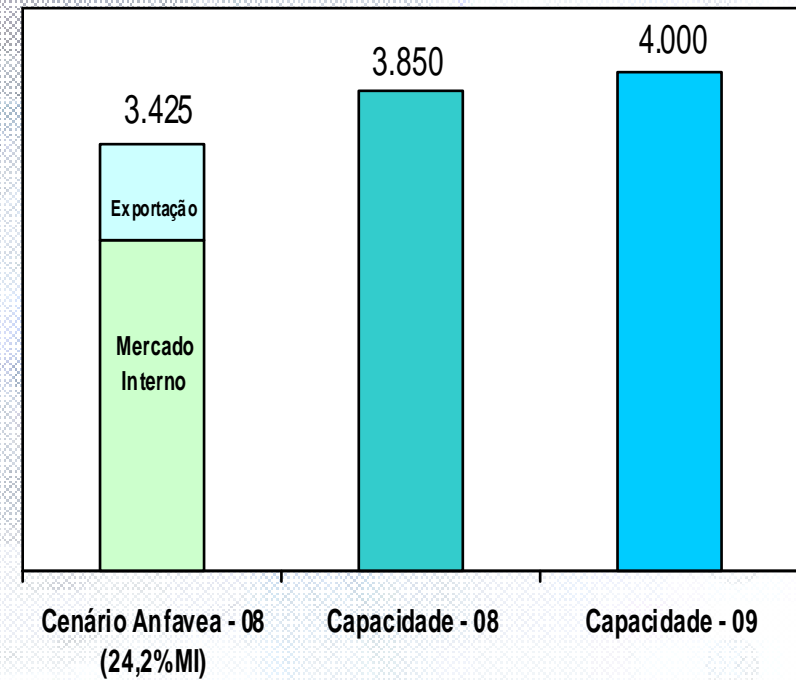
Investment

US\$ billions



Capacity

Thou units



Source: Anfavea, BNDES
Obs: Mapping BNDES not included agricultural machines

Forecast





Forecast 2008

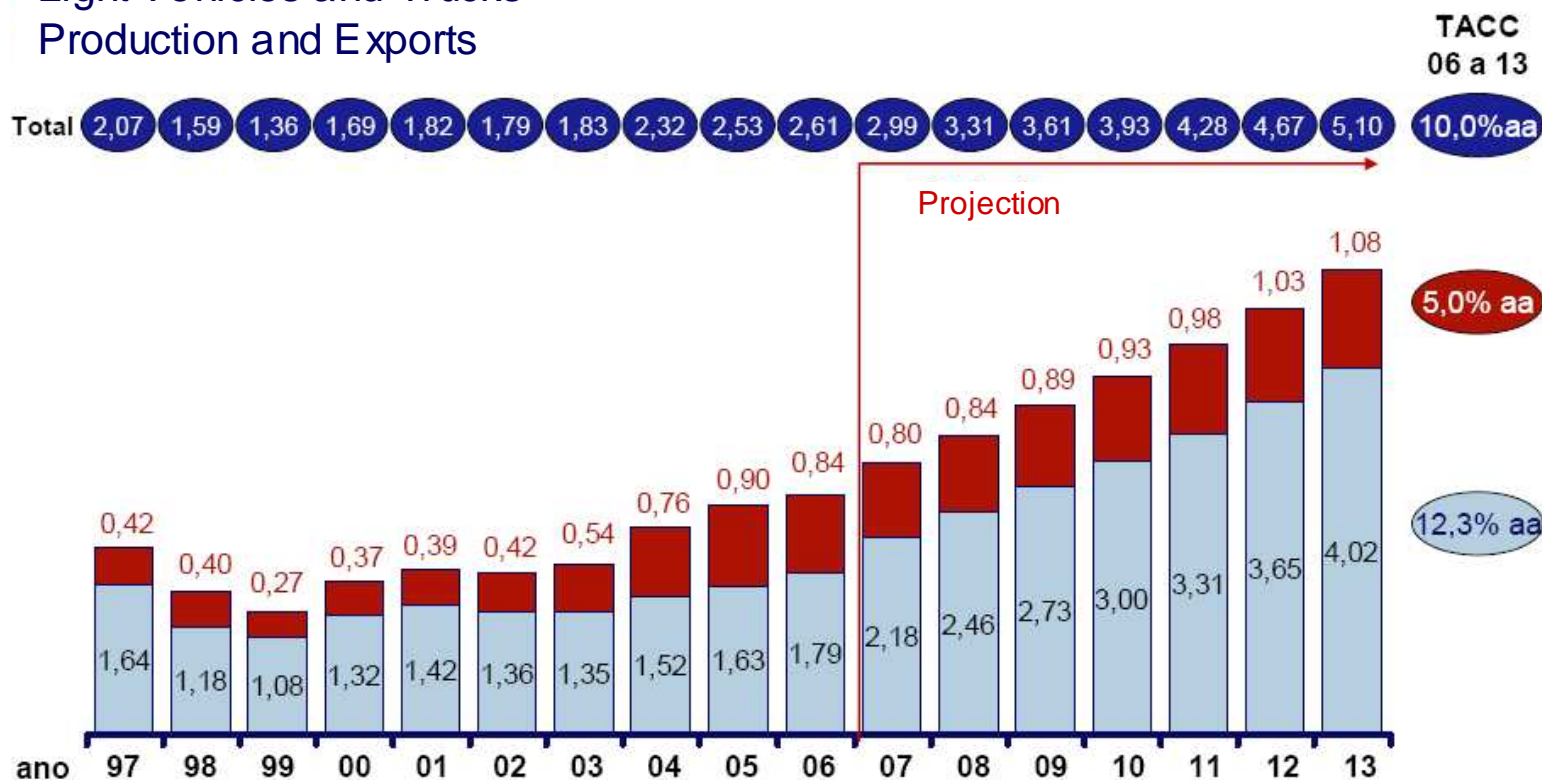


	2007	2008	Delta 2008/2007
Internal Market (thou units)			
<i>Automotives</i>			
TOTAL	2.463	3.060	+ 24,2 %
National	2.186	2.645	+ 21,0 %
Imports	277	415	+ 49,8 %
<i>Agricultural Machines</i>	38,3	53,1	+ 38,6 %
Exports			
VOLUME (thou units)	789	780	- 1,0 %
Value* (US\$ billions)	13,5	14,5	+ 7,4 %
Production (thou units)			
<i>Automotives</i>	2.977	3.425	+ 15,0 %
<i>Agricultural Machines</i>	65,0	85,0	+ 30,8 %

* Inclui o setor de máquinas agrícolas. Empresas associadas à Anfavea

Competitiveness and investment of Automotive Sector – Total Light Vehicles and Trucks Production and Exports

■ Exports
■ Production for local market



Para atender a esta demanda, a produção deverá crescer 10,0% ao ano até 2013 enquanto que as exportações crescerão 5% ao ano no mesmo período, atingindo 1,08 milhão de unidades.

Flex Fuel Technology





The Brazilian Ethanol Program



❖ Proálcool

- ❖ Started in 1975 (because of the international oil crises) two uses:
 - 1 – introduce the Gasohol as mixture of ethanol;
 - 2 – promote de development of vehicles powered by Alcohol (pure ethanol).

❖ Proálcool – Reasons

- ❖ Petroleum consumption 1972= 78% Imported (Transportation 98%)
- ❖ Petroleum price FOB US\$/barrel: 1973 = 11,2 1980 = 53,9 (380%)
- ❖ Participation of petroleum on Payment Balance: 1973 = 10% > 1981= 53%
- ❖ Average exchange rate US\$: 1973 = Cr\$ 6,13 > 1980 = Cr\$ 52,81 (762%)

❖ Proálcool implemented all necessary infrastructure

- ❖ Nowadays 50.600 gas stations, 47.300 offer ethanol (93,5%)
- ❖ In the USA, 1.237 gas stations offer ethanol of a total of 170.000 (7,3%)



Flex Fuel Vehicles



- ❖ Introduced in the Brazilian market in March 2003.
- ❖ These vehicles are designed to be fueled with gasoline, or ethanol, or any mixture of both gasoline and ethanol. (E25 and E100)
- ❖ Currently: 10 brands e 66 models.



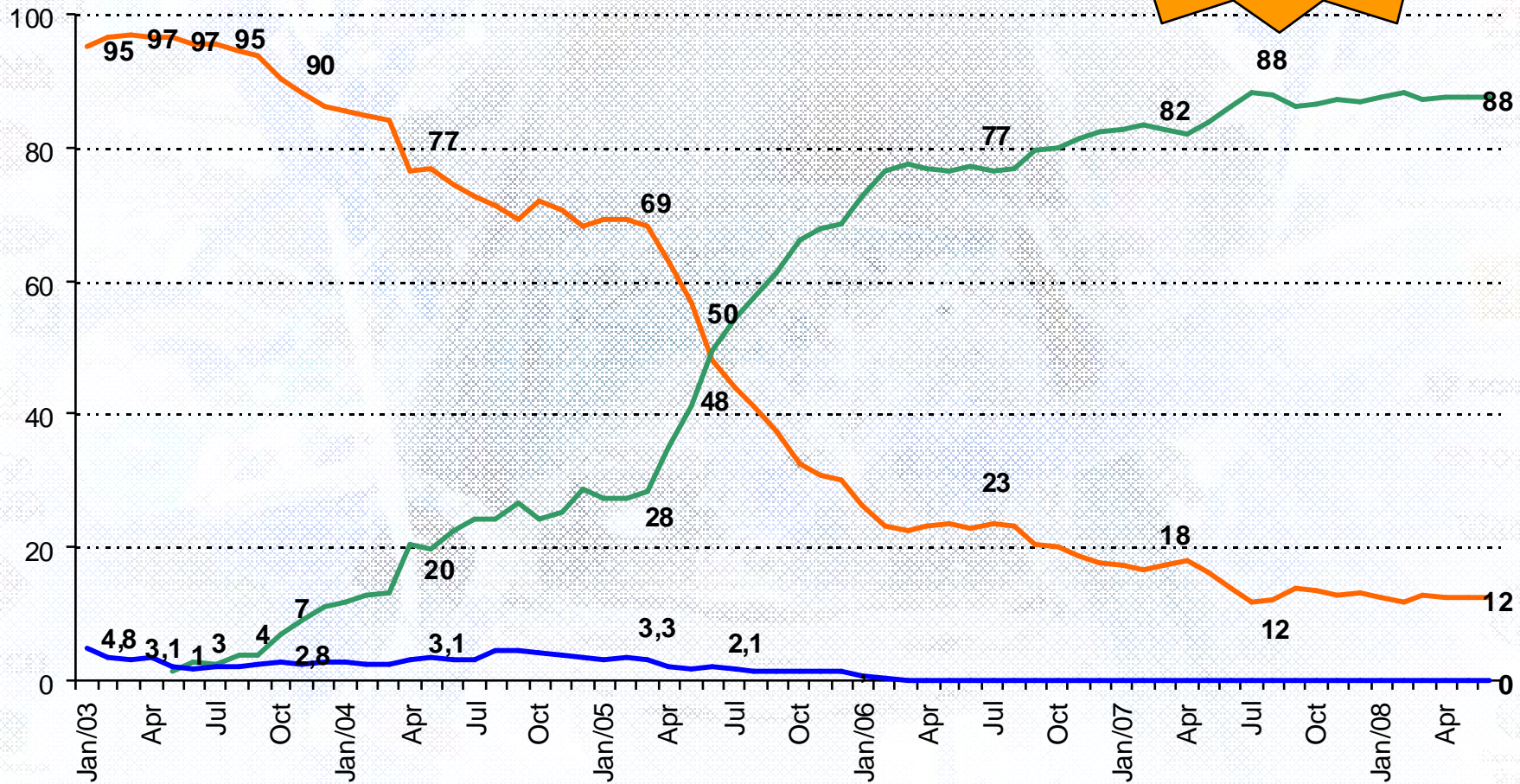
Brazilian Market – Sales of Flex-Fuel

Passenger and Light Commercial Vehicles



More than 6 million Flex Fuel vehicles sold

Percentage



— Gasoline/Diesel — Flex Fuel — Ethanol

Thank you!
Danke Schön!
Obrigado!



Sugar Cane – Performance 2007

BACK-UP



Production	515 million tons
Harvest area	6,7 million ha
Productivity	77t per ha
Participation on global production (2006)	33%
% destined to ethanol production	43%

Source: IBGE, Min. Agricultura, ÚNICA, FAO

❖ Energetic Balance:

- ❖ It is possible to obtain more energy from ethanol than it requires to produce it. (from production to use = 8.3)

❖ Environmental Balance:

- ❖ The production and use of ethanol avoids CO² emissions. (1L ethanol = reduction of 2.7Kg CO₂)

❖ Social Balance:

- ❖ The harvest of sugar cane helps diminish poverty, through promotion of decentralized economic development. (employment 0.9 million people)

❖ Economic Balance:

- ❖ The use of ethanol helps Brazil obtain auto-sufficiency in terms of fuels and energy.

❖ Compatibility with New Automotive Technologies:

- ❖ The use of Ethanol fuel is aligned with the introduction of hybrids/electric/combustion vehicles.
- ❖ It is possible to develop fuel cells use with ethanol as hydrogen conductor, instead of methane or natural gas..

❖ Sustainable Development:

- ❖ The harvested area of sugar cane is only 16% of the farmable area in Brazil, and there are no conflict with food production or environmental protection area. (only 0,8% of ALL farmable area is dedicated to ethanol.

❖ Future:

- ❖ The future possibility to produce ethanol from cellulose could improve the productivity above 50% making it feasible for almost any region in the world.