



THE WRI CENTER FOR SUSTAINABLE TRANSPORT

Transport and CO₂ in the US And Other Developed Countries Are Americans Different?

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EMBARQ

- A catalyst for socially, financially, and environmentally sound solutions to the problems of urban mobility



EMBARQ

- Established as a unique center within World Resources Institute in 2002, *EMBARQ* is now the hub of a network of centers for sustainable transport in developing countries.
- Shell Foundation and Caterpillar Foundation are *EMBARQ*'s Global Strategic Partners, supporting *EMBARQ* projects worldwide
- Additional *EMBARQ* supporters include
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 - **Asian Development Bank**
 - **Energy Foundation**
 - **Blue Moon Fund**
 - **US Environmental Protection Agency**
 - **Japan International Transport Institute**

Saving Energy and Emissions From Transport – We Are Different?

On Road Fuel Economy

- US (incl. 80% of light trucks) well above Europe, slightly above Japan
- US steady, Japan and Europe improving
- More than 2/3 of EU/US difference size/weight

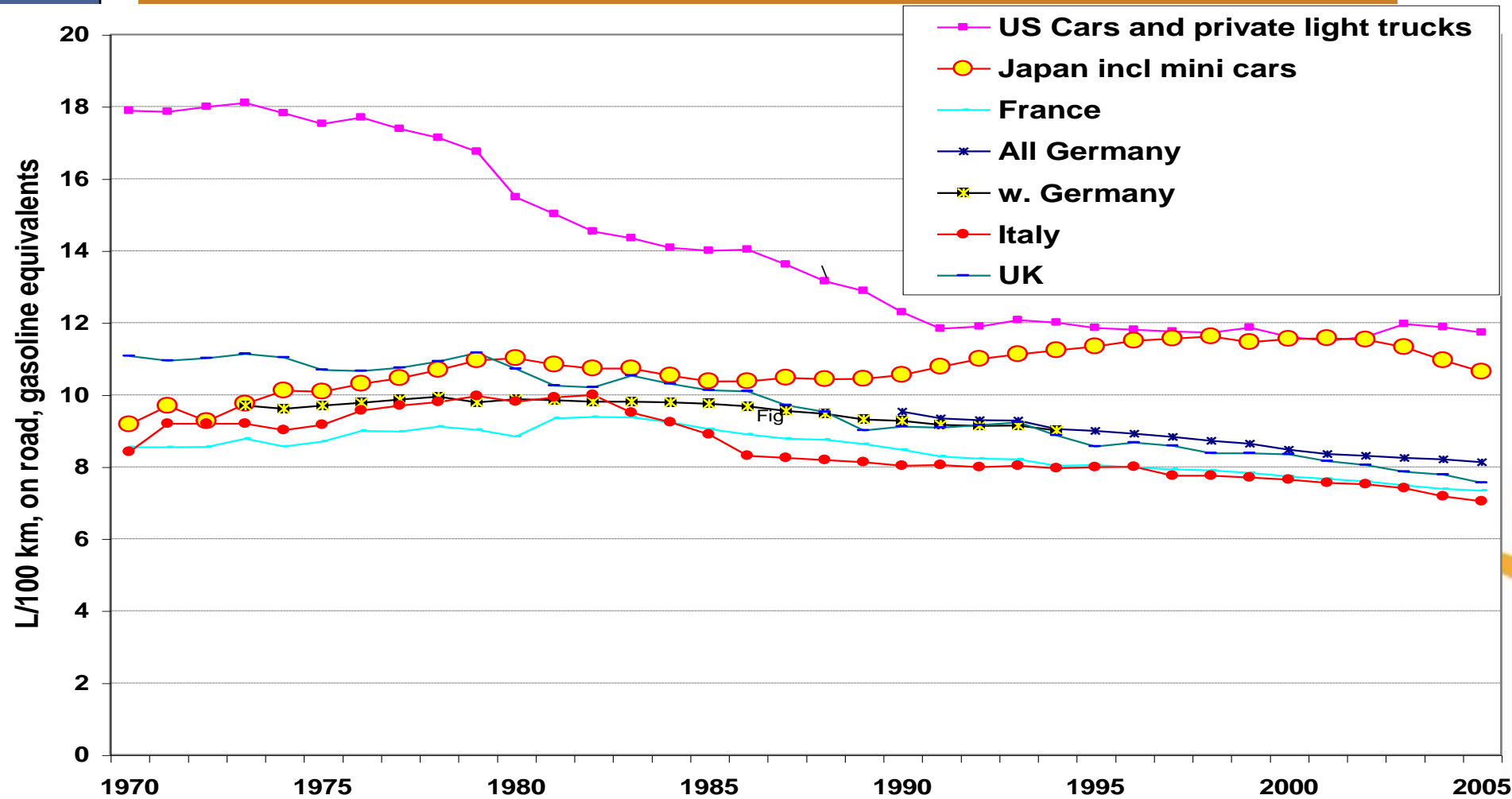
New Car Fuel Economy

- US flat, Japan and EU improving
- US cars bigger each year, Japan 1/3 mini cars, EU only slow increases
- More than 2/3 of US/EU or Japan difference size, weight, power

Other Key Differences

- US drivers move 2-3 times per capita EU or Japan
- US fuel prices 40-50% of Europe (in purchasing power parity)
- US no significant standard tightening – J, EU have voluntary agreements

Real Automobile Fuel Intensity – All Fuels Stagnant in the US; heading down in Europe

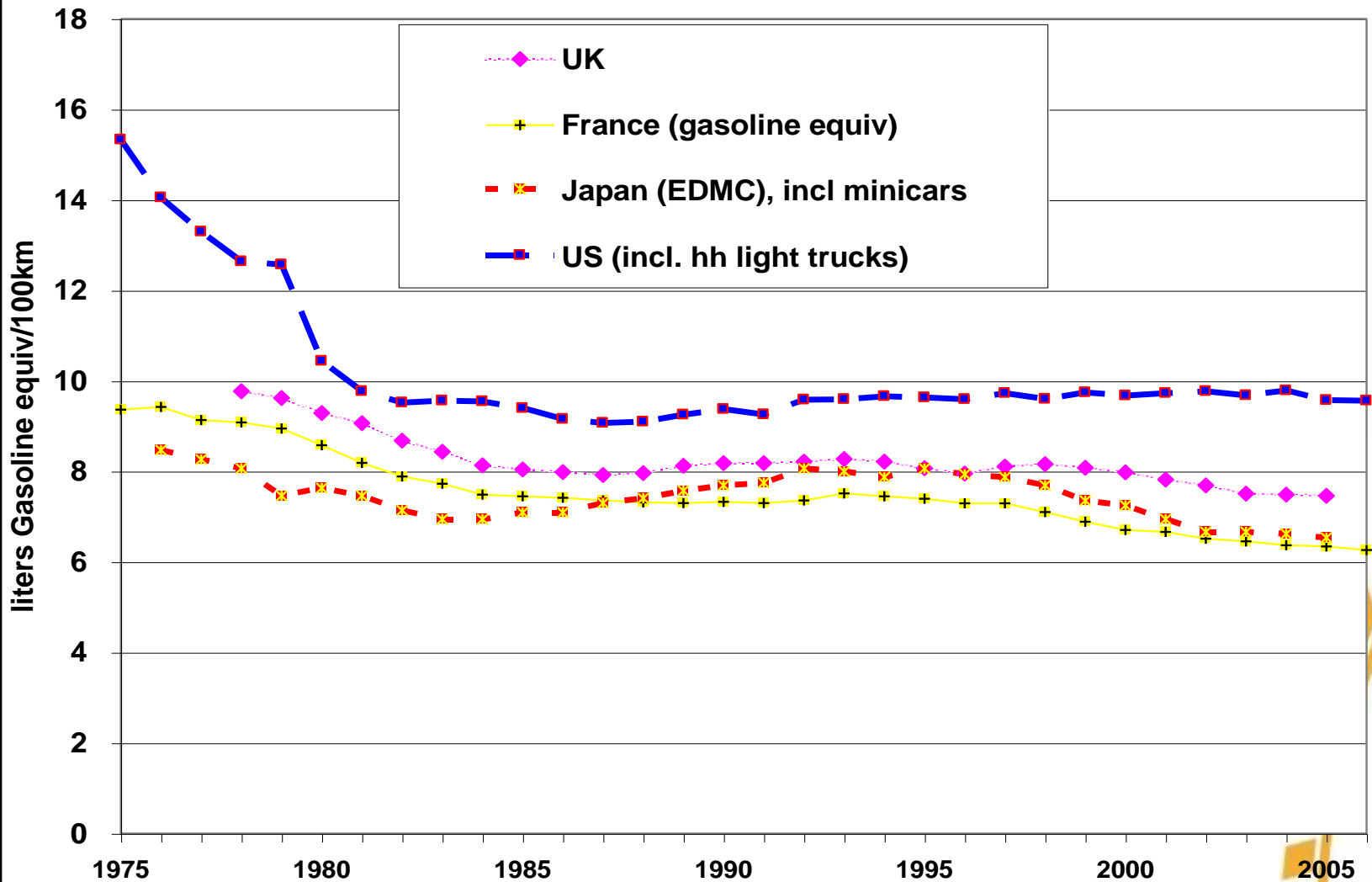


Source, L Schipper, EMBARQ, based on official national data

International Trends in Fuel Economy

Sales Weighted Tests of New Vehicles by Year

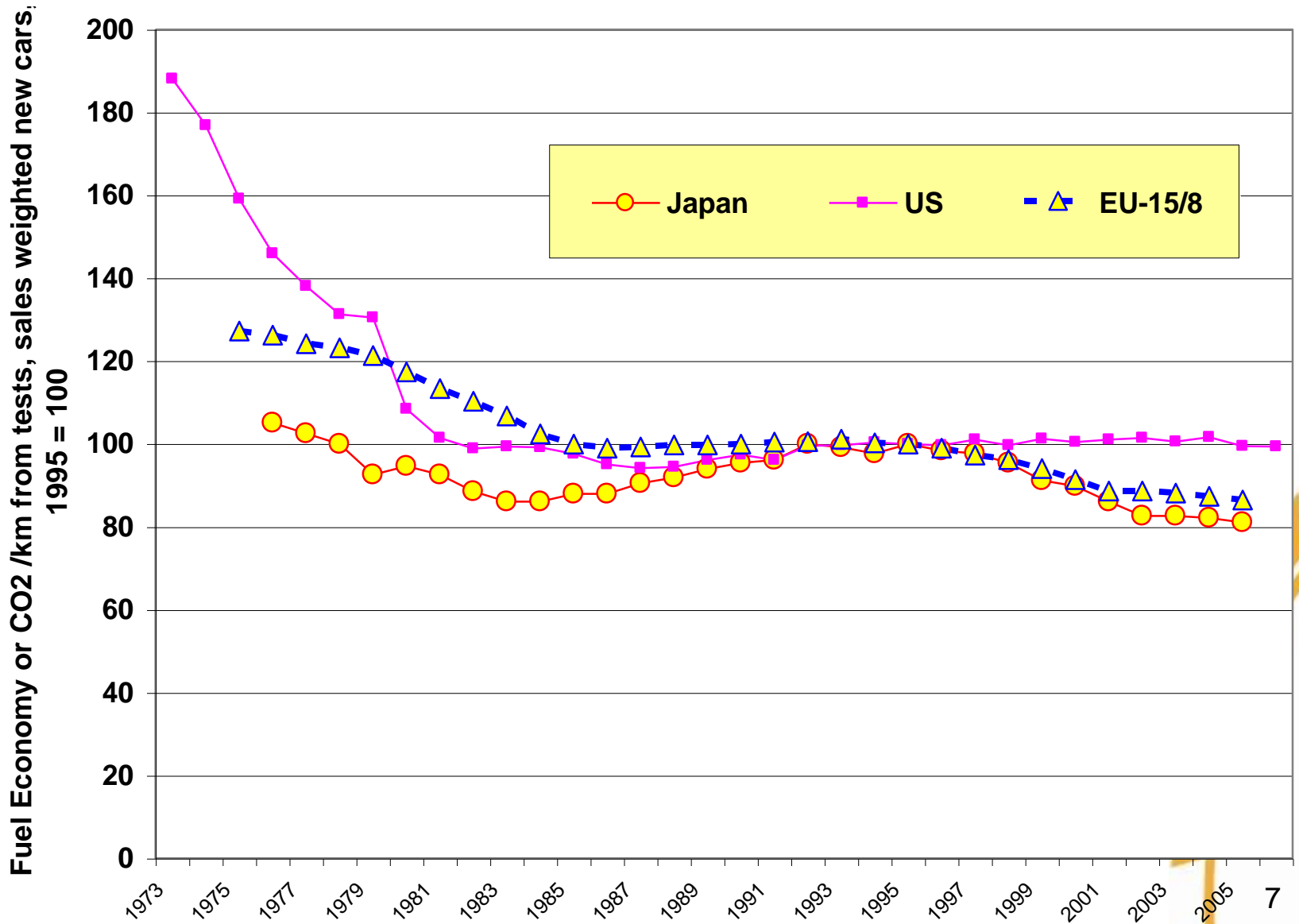
(10 l/100 km = 23. 65 MPG)



Trends in CO₂ / km

Sales Weighted New Vehicles by Year

(EU Goal 140 gm/km = 37.5MPG = "73")



Dieselization

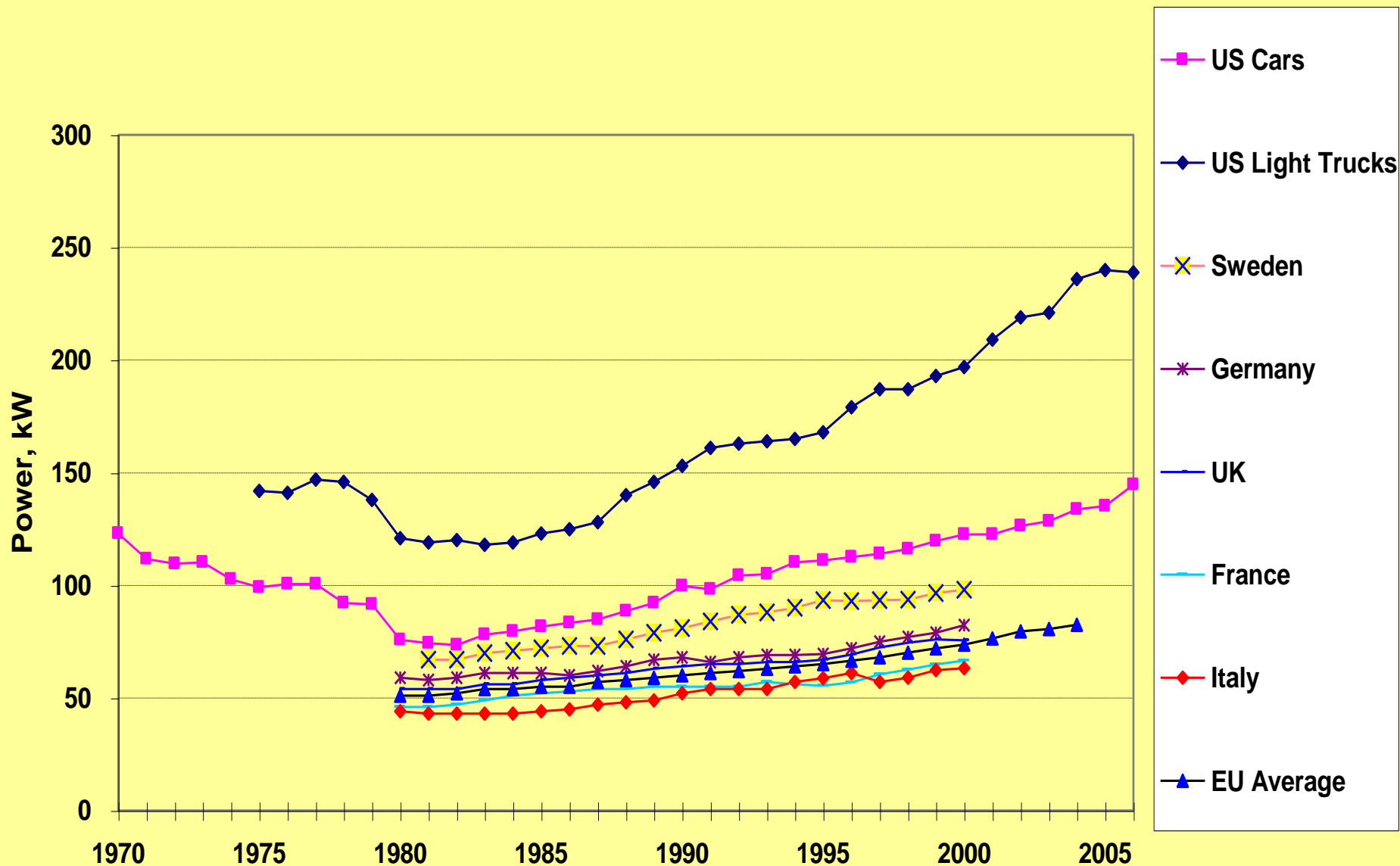
Where is the Pony Here?

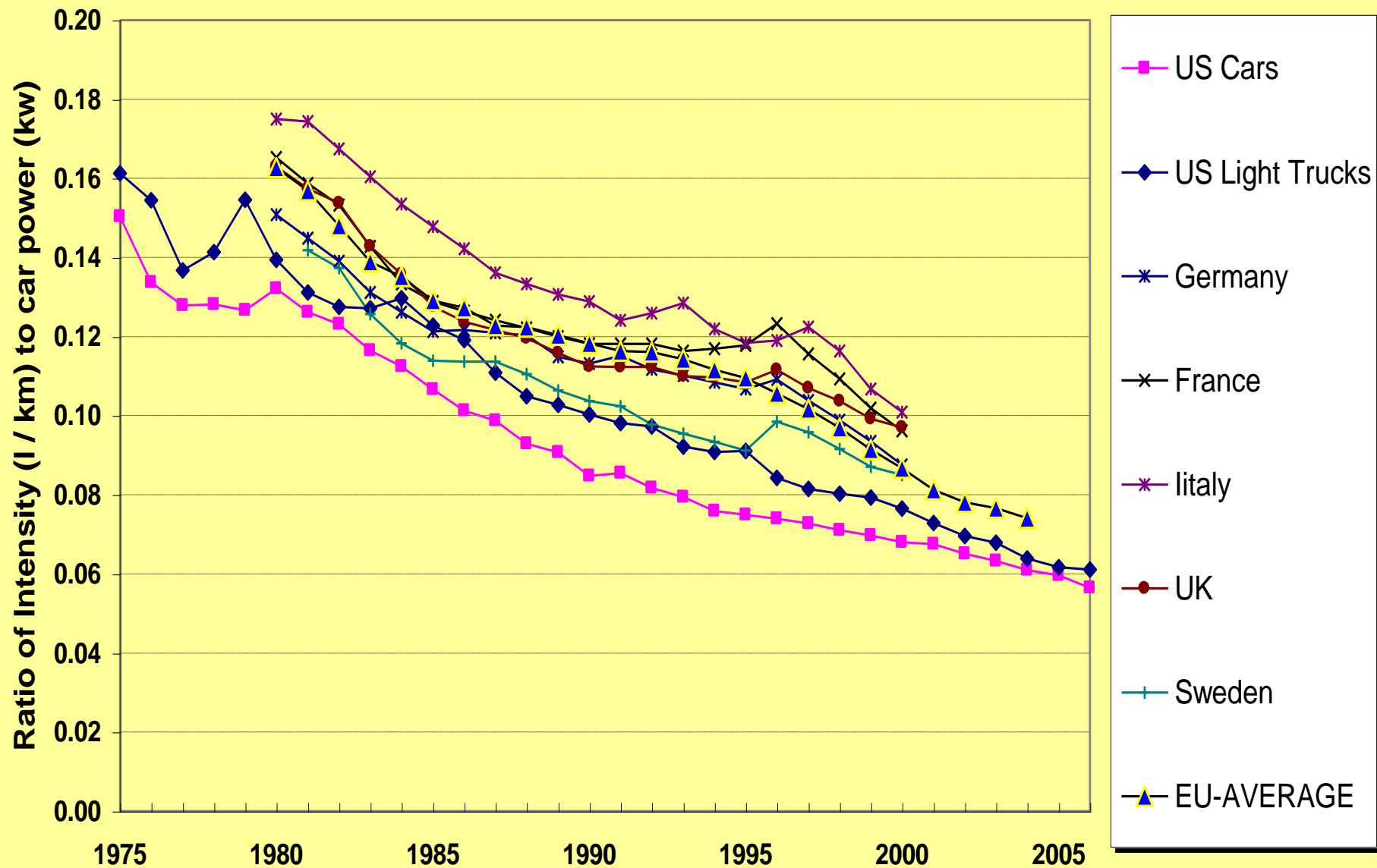
		France		Germany	
		1995	2005	1995	2005
New Diesels					
Share of Sales	%	46.5%	69.1%	14.6%	42.6%
Test Fuel Economy	L/100 km	6.60	5.60	6.5	6.511
Relative to gasoline	%	88.0%	83.6%	85.5%	86.4%
Rel. to gasoline, CO2/km	%	104%	99%	101%	102%
Stock of Diesels					
Share of Stock	%	26.5%	46.6%	13.7%	20.0%
Yearly Distance	KM/ car	20,627	16,736	17,980	19,470
Distance, Rel. to Gasoline	%	178%	164%	144%	180%
On Road Fuel Economy					
Fuel Economy	l/100 km	6.67	6.43	7.47	6.82
Relative to gasoline	%	78.6%	83.9%	81.7%	81.7%
Rel. to gasoline, CO2/km	%	92.7%	99.0%	96.4%	96.4%
COMBINED FLEET FUEL ECONOMY		8.05	7.33	9.00	8.13



Pep is Up Everywhere

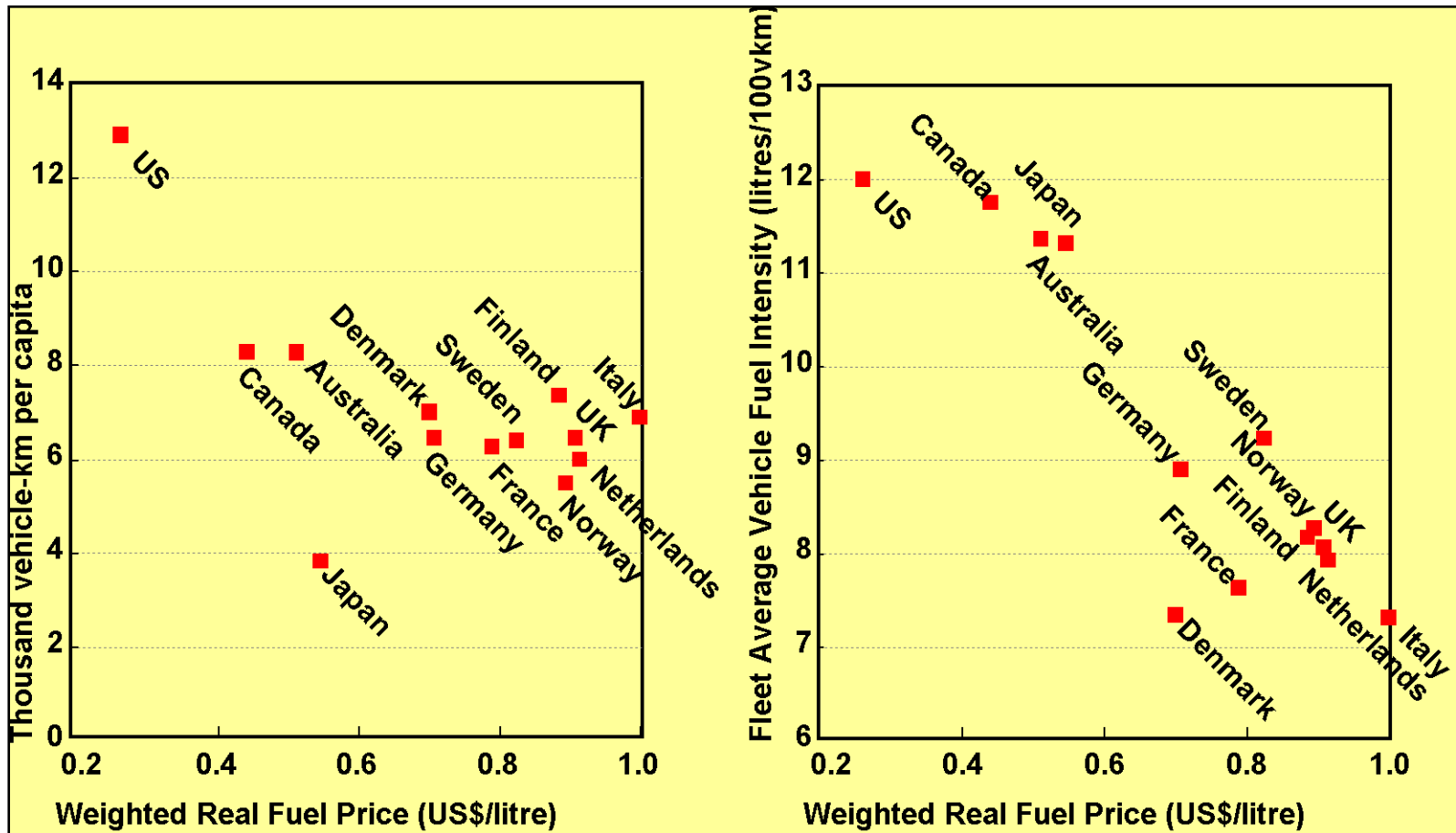
Zip (power/weight) and Weight Look the Same







Car Use and Fuel Intensity vs. Fuel Price, 1998

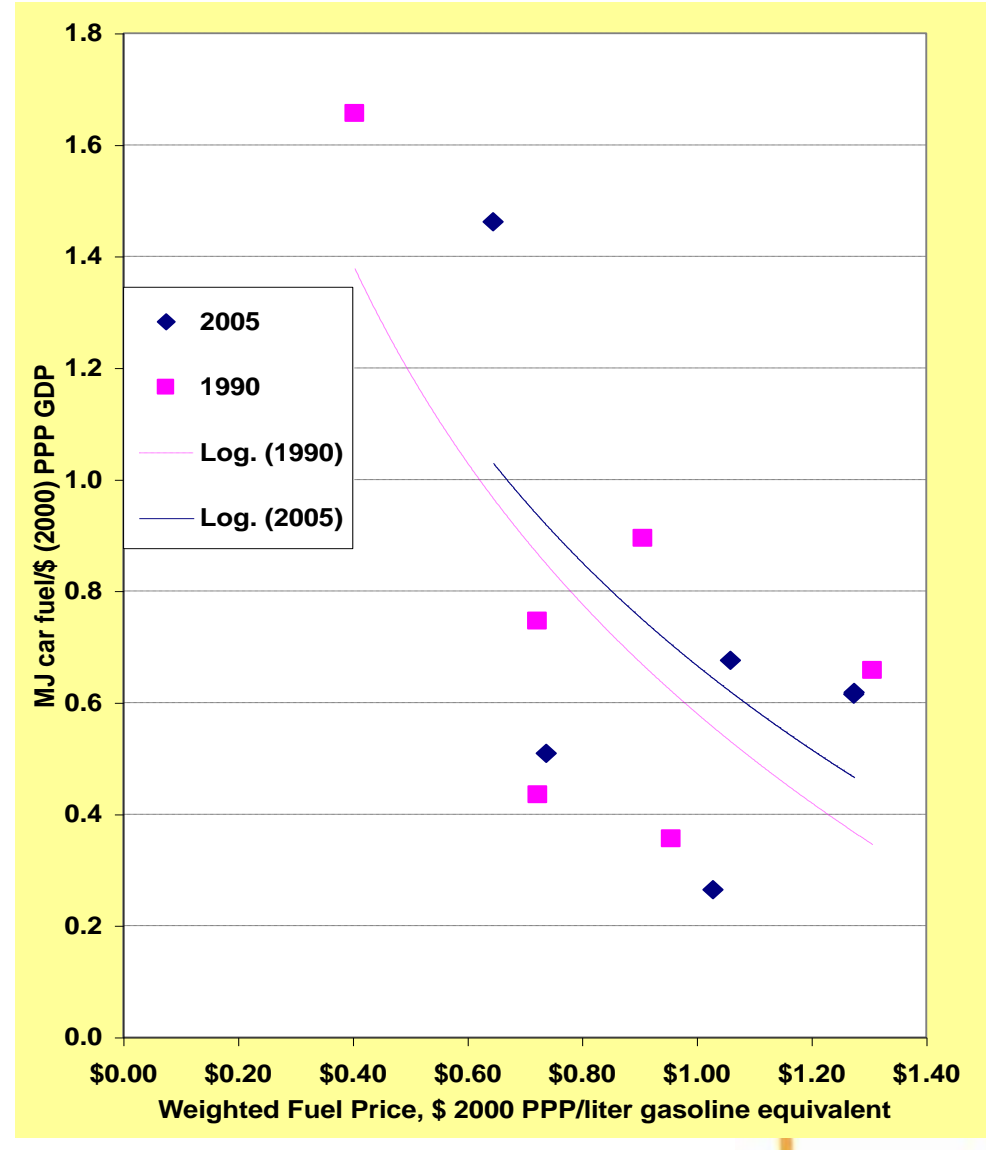
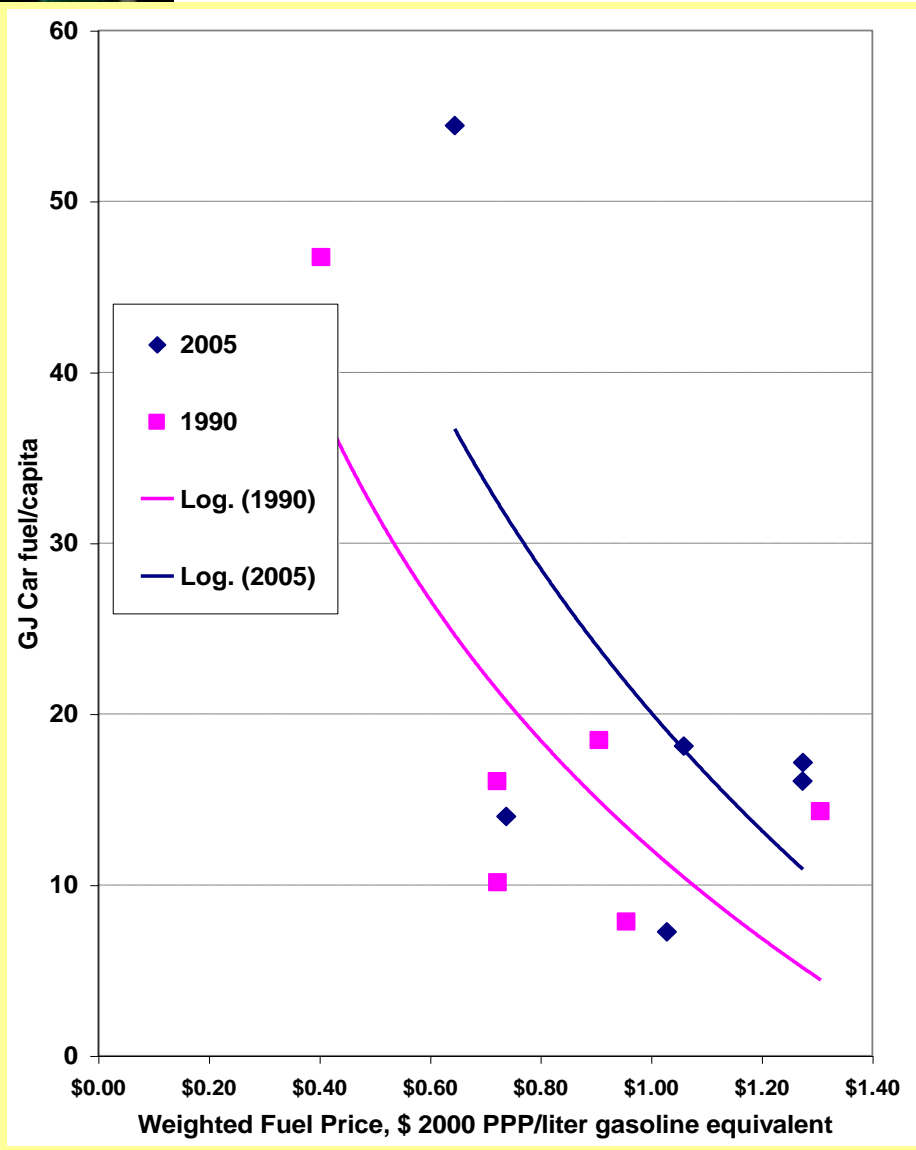


***Better Understanding Urgently Needed of
Fuel Price – Vehicle – Use – Fuel Economy***



Car Use vs Cost/KM of Fuel

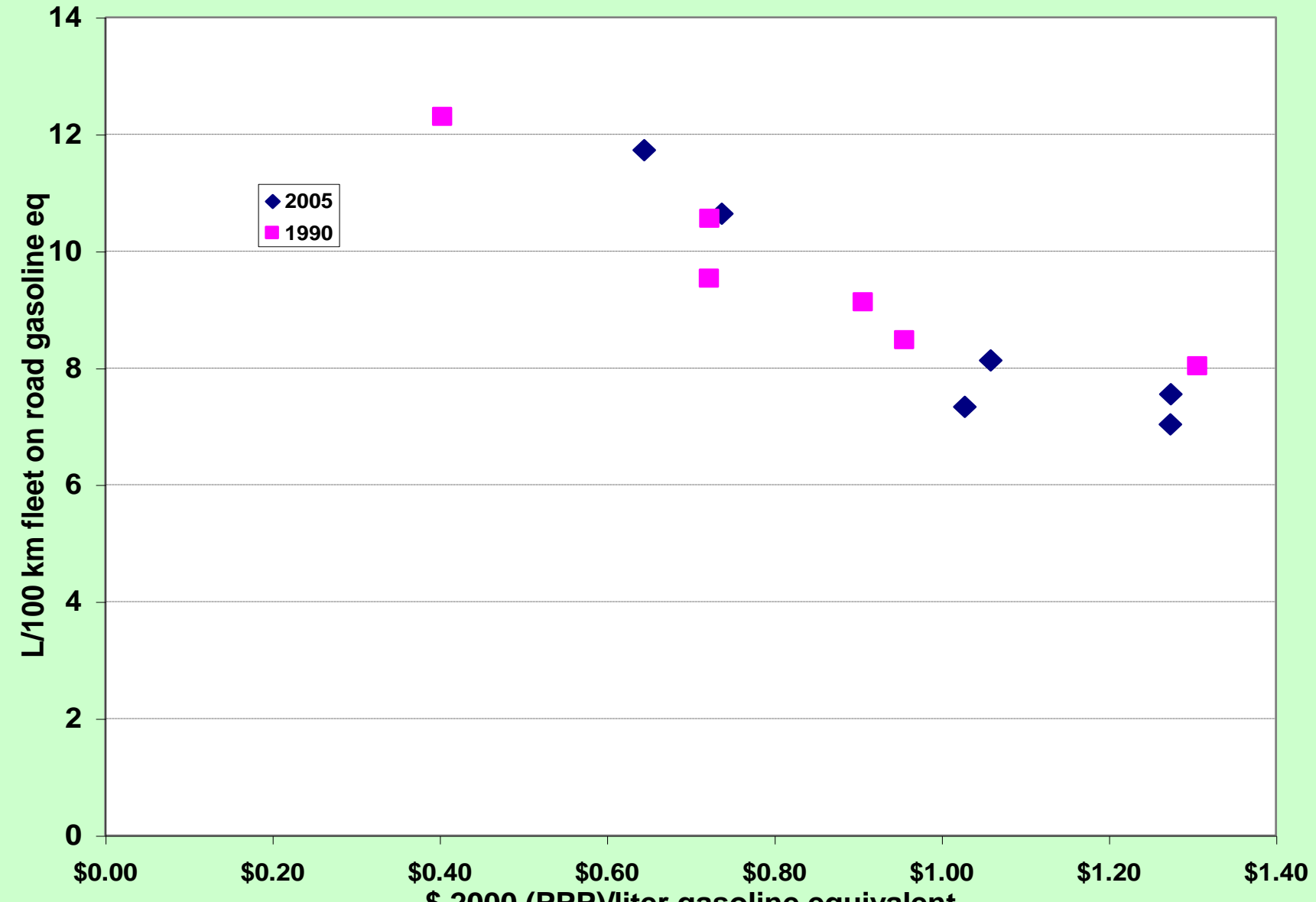
Fuel Use vs Fuel Cost





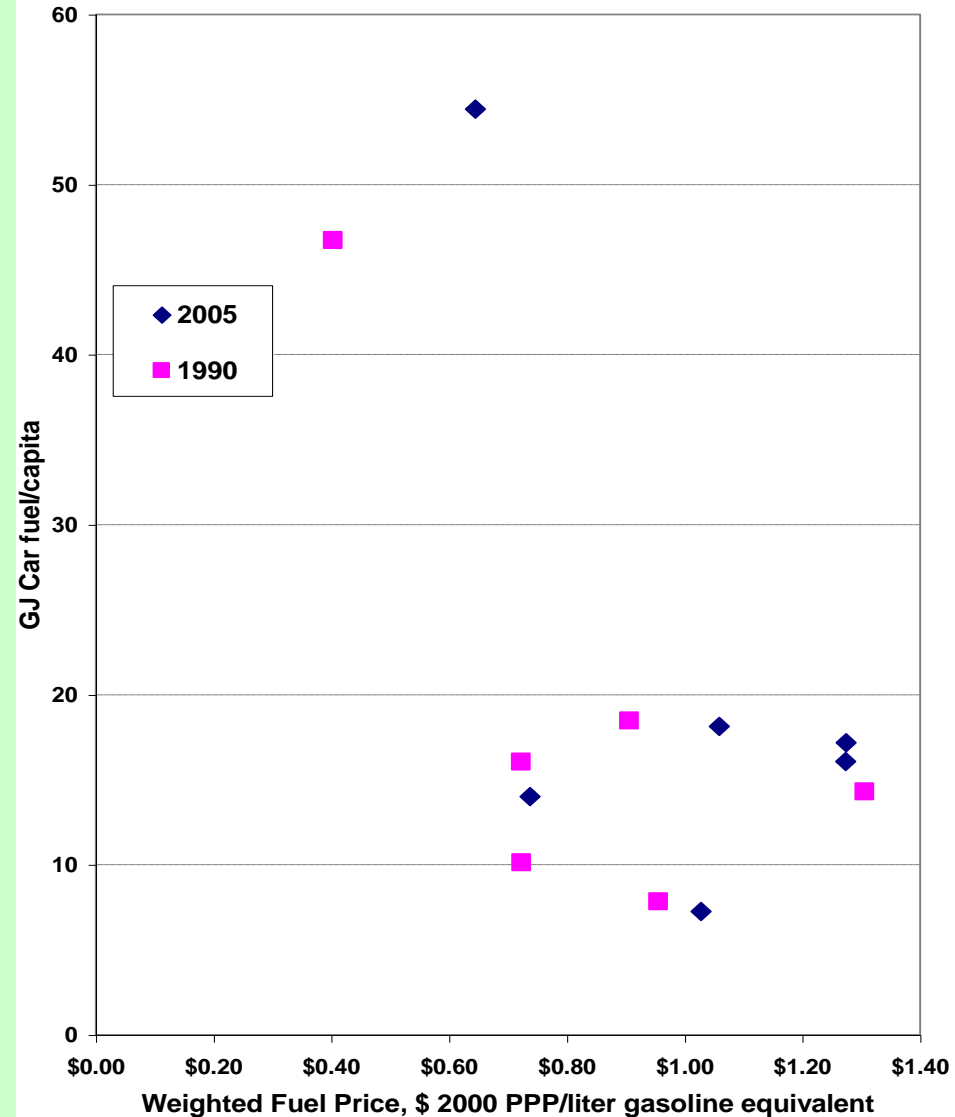
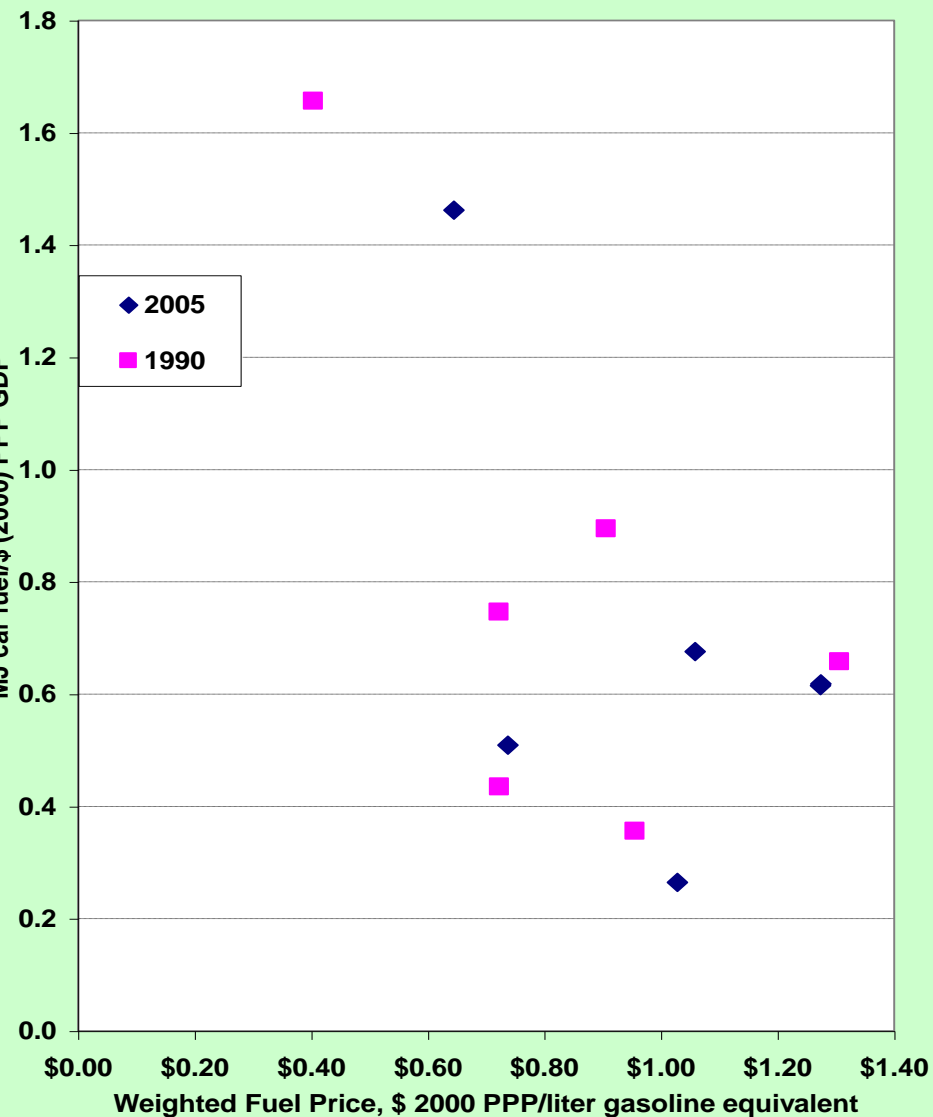
Car Use vs Cost/KM of Fuel

Fuel Use vs Fuel Cost





Fuel Use/Capita and Fuel Use/GDP vs Fuel Cost



Saving Energy and Emissions In the Future: How Are We Different?

Are European/Canadian/Japanese Technologies Different?

- Lew Fulton says “a little”
- Do market forces bring on more technologies or smaller just vehicles?
- Are European branches of car companies smarter?

Are the People Different?

- Europeans more accepting for taxes and regulation?
- Europeans less car hungry?
- Europeans willing to live differently?

Are Policy Making Process Different?

- Is power to tax essential?
- Does Brussels (Ottawa) work better than Washington?
- Do actual EU policies work differently?

Thank You

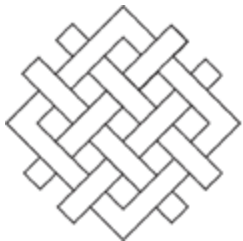
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Car that absorbs its own carbon?

