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The Biofuels Debate

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What are the Issues?

- ▶ Biofuels are pushing up food prices
- ▶ Biofuels are keeping down oil prices
- ▶ Policies are working

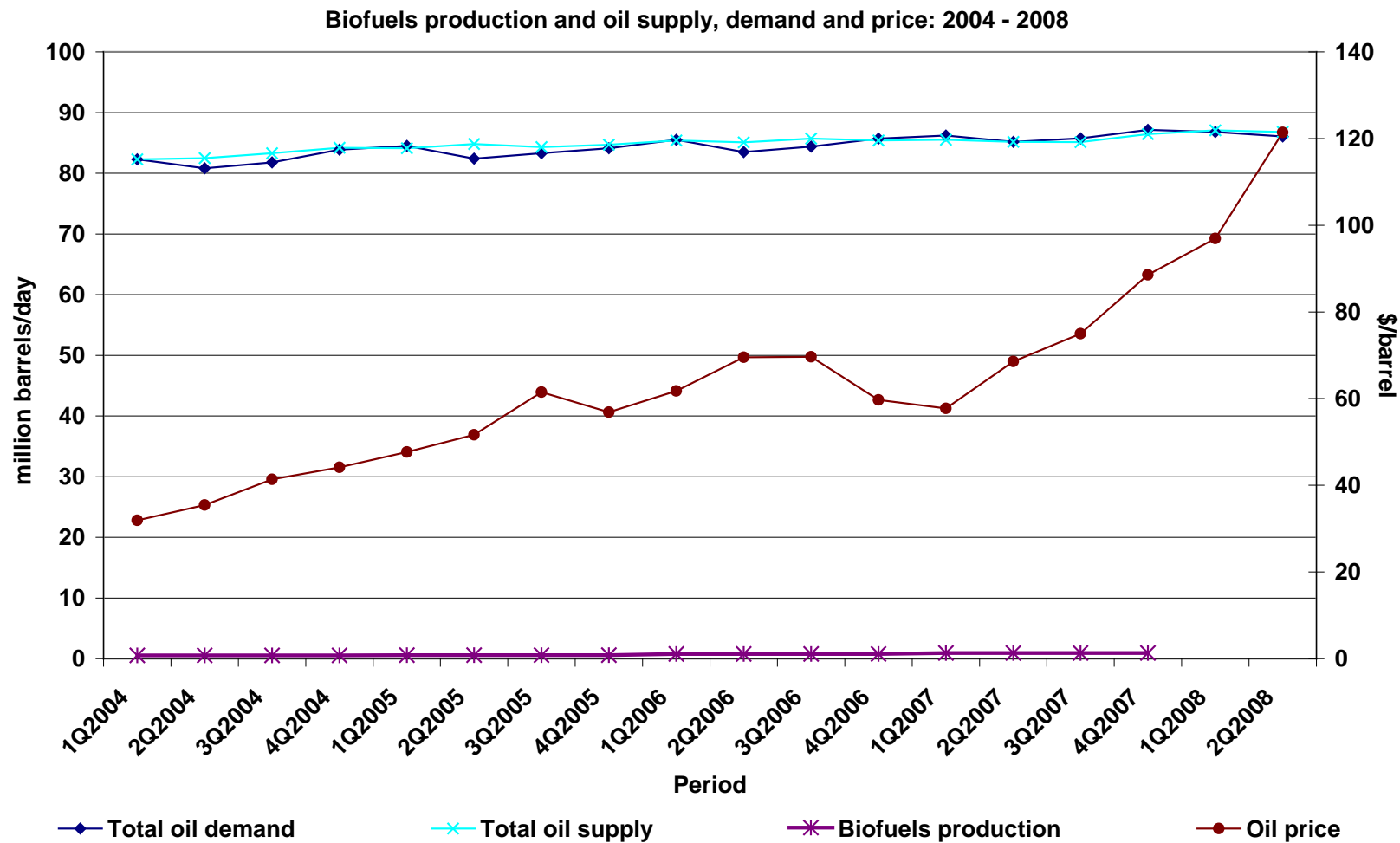
- ▶ Can biofuels be classified as ‘good’ and ‘bad’
- ▶ Should we continue to support bad biofuels?
- ▶ When will 2nd generation biofuels enter the market?
- ▶ How much can biofuels contribute in 2020? 2050?

Biofuels are pushing up food prices

Although a number of factors have influenced the rises in food prices, such as low yields and extreme weather events, the most important contributor is the increase in biofuels production from grains and oilseeds in the US and EU. Between 70 and 75% of the increase in the price of food commodities from January 2002 to June 2008 is attributed to biofuels and the related consequences of low grain stocks, large land use shifts, speculative activity and export bans.

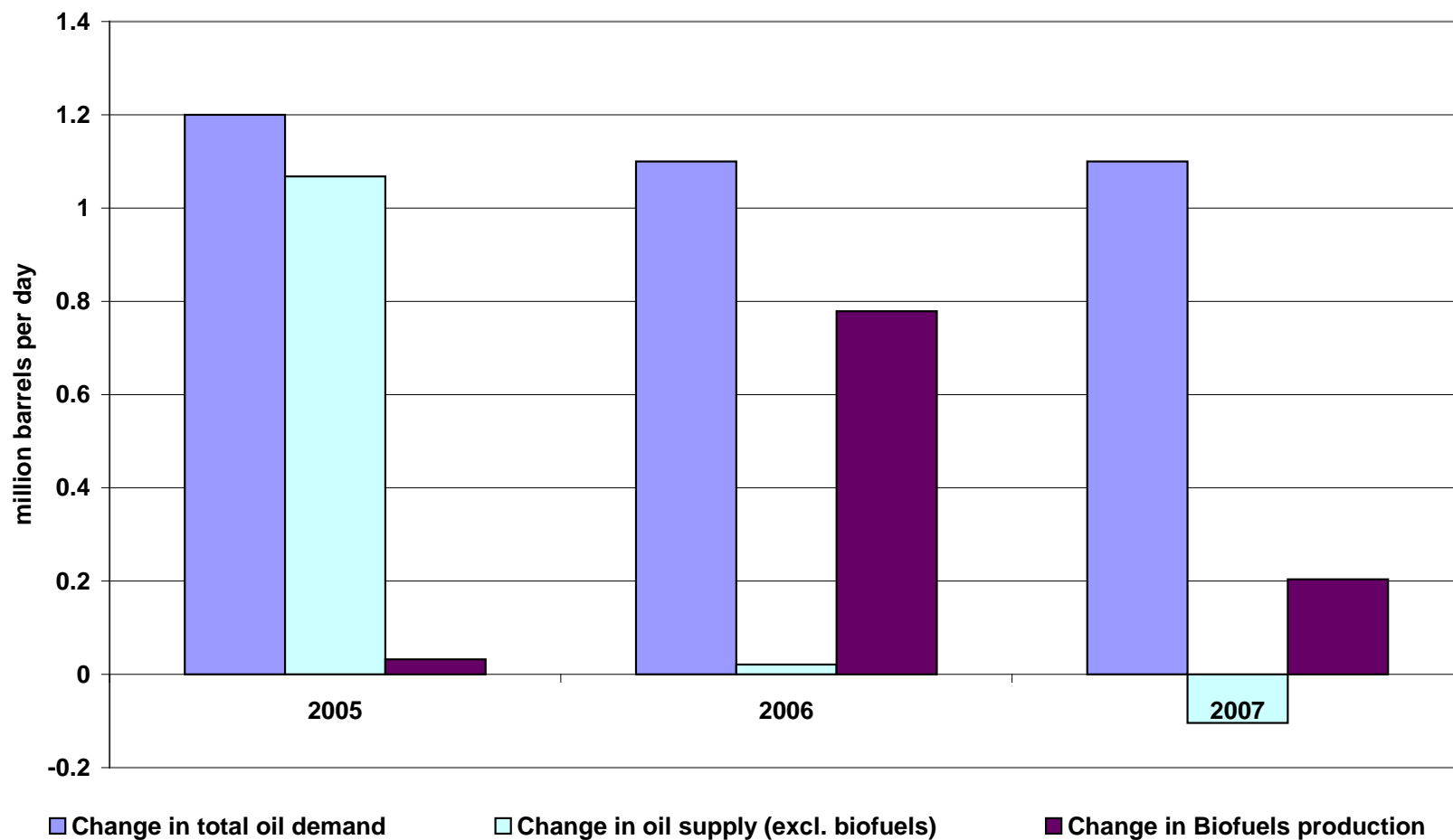
Mitchell D (2008), A note on rising food prices, WPS 4682, The World Bank, July 2008

Biofuels are keeping down oil prices



Biofuels are keeping down oil prices

Biofuel Contribution to Incremental Oil Supply

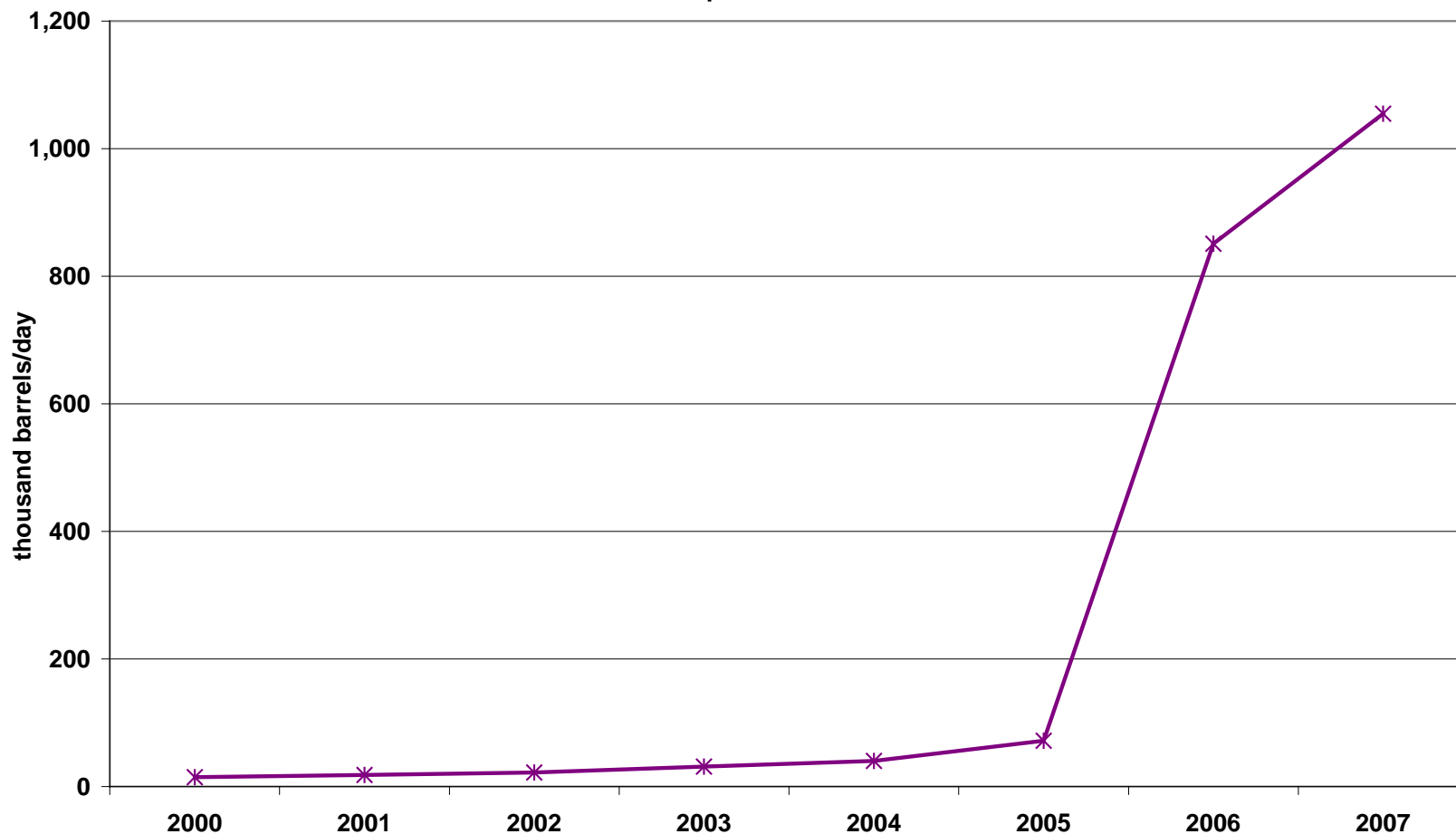


Biofuels are keeping down oil prices

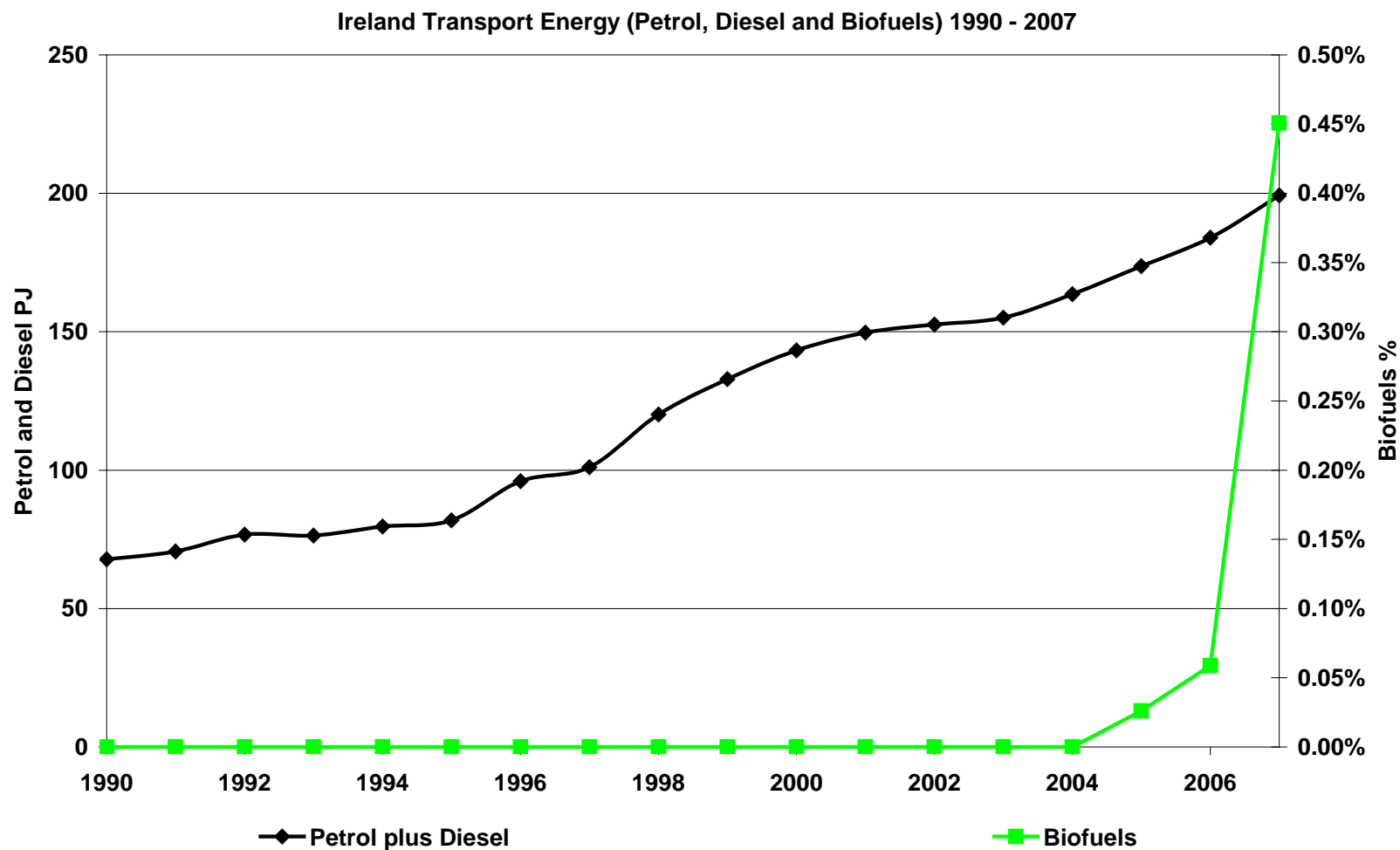
"Compensating for the additional supplies that have been met through ethanol and biodiesel supply growth in Europe and the US since 2005 would require around 1 mb/d of crude oil to be processed. Given the poor performance of non-OPEC production and relatively low spare capacity, clearly much higher petroleum prices would be in place now if those biofuels had not been available."

Policies are working

Global Biofuels production 2000 - 2008



Policies are working



**Q1 - Can biofuels be classified as
'good' and 'bad'?**

**Q2 – Should we continue to support
'bad' biofuels?**

**Q3 - When will 2nd generation biofuels
enter the market?**

**Q3 - How much can biofuels contribute
in 2020? 2050?**

When Will 2nd Gen Biofuels Arrive?

- ▶ Currently, there are four pilot plants in the US and a handful elsewhere (e.g. Germany, Japan), whose collective production is minimal (less than 1 kb/d in total).
- ▶ According to the *ACT* scenario in the IEA's recently published *Energy Technology Perspectives 2008*, lignocellulosic ethanol production in the US will contribute around 50 kb/d by 2015.

What % Can Biofuels Deliver?

Transport Demand and Biofuels in 2050 (IEA ETP 2008)

