

The integration of the world commodity markets, climate uncertainty and the *rollback* of the Common Agricultural Policy (CAP) increase for farmers the exposure to risk. This is particularly true for Irish agriculture as its dairy and cattle industry is mainly exported oriented (fig1., fig.2). Irish agriculture is based on its abundant grass. The cycle of production match therefore closely the seasonal cycle of rain (fig.3).

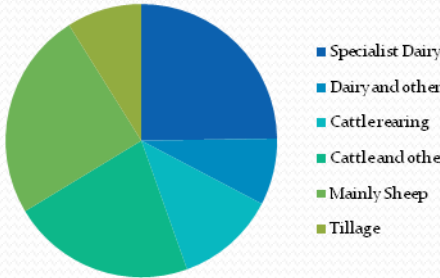


Fig.1 The Irish agriculture

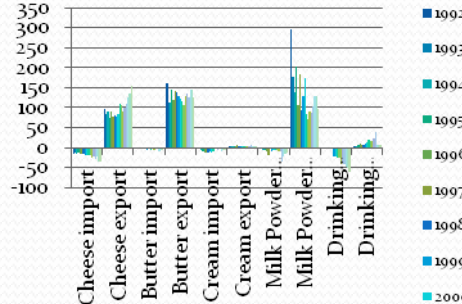


Fig.2 Trade balance of dairy products (t.)

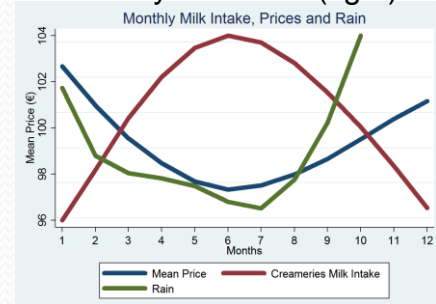


Fig.3 Seasonal supply and price

Until recently, dairy prices oscillated gently to accommodate demand and seasonal supply (fig.3, fig.4). Post 2005, Irish prices join the world prices (fig.7) : the spike in oil prices leads to a spike in bio-fuel prices which in turn impact the price of maize, soya and other cereals used as feedstuff by farmers, constraining their inputs use and therefore their supply, which, ultimately, drove up dairy prices. The combined effect of this new linkages and the 2006-2007 drought in Australia, a further shock to the world supply, brought dairy prices at record level. However, the landing was tough (fig.7): following the massive responses of US producers, prices collapsed even lower than before, because of the lowering of intervention prices (2003 CAP reform)

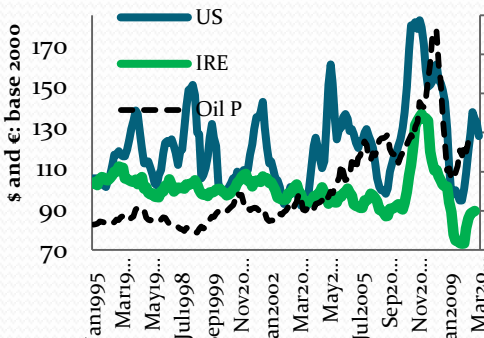


Fig.4 Milk prices and oil prices linked

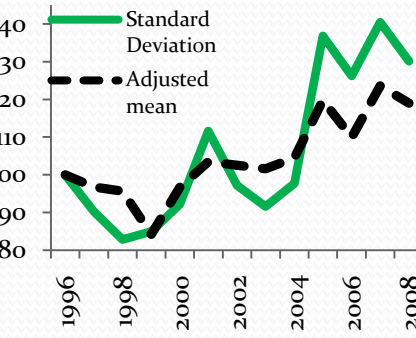


Fig.5 Gross-Margin, 100=1994

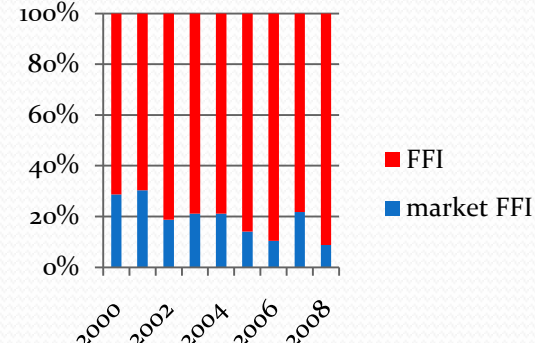


Fig.6 Farm Family Income and subsidies

2003 is also the year of the decoupling of subsidies from the production level (Single Farm Payment). The goal is to stop distorting production incentives while providing the farmers with an income cushion against the higher price volatility: the farm family income is virtually 100% subsidized (fig.6), but the volatility of gross-margin increase (fig.5). The wet and temperate climate of Ireland is its main competitive advantage: the abundant grass reduces to minimum the feed costs. Even though the third aspect of the reform aims at making agriculture more sustainable (REPS), this might well not last. (fig.7, fig.8).

**My PhD:**

On the theoretical side, I want to build a model that disentangle the price effect from the quantity effect, integrate input price risk and better grasp the link between climate risk and market risk. I am also working on the use in risk analysis of inequality index. Both wealth and risk might be represented by a distribution and both interact. On the empirical side,

I want to estimate the impact of the CAP on the risk exposure of farmers and what could be done in the next reform (e.g. Market instruments, weather index insurances) as well as the cost of uncertainty of climate change and its likely impacts. I am using a panel data of several hundreds of farms over 10 years (NFS).

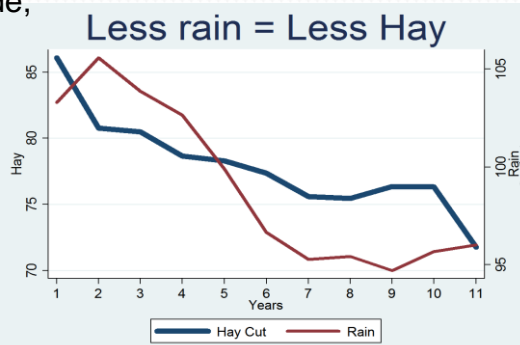


Fig.7 Rain and Hay since 1996

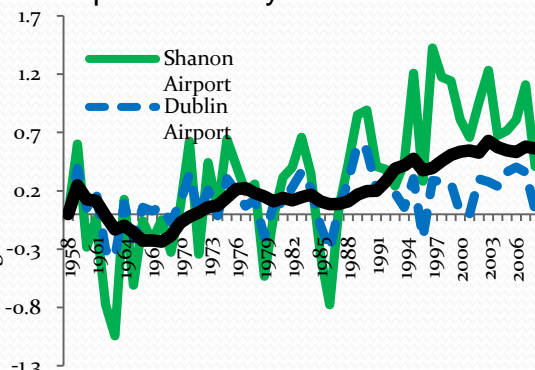


Fig.8 Temperature increase since 1958