Current research: financial-real economy linkages and Eurobonds

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Preface

- You may find my presentation less pessimistic on the global economy than most. However, risks of mass species extinction given human co-ordination failures on climate change, make me deeply pessimistic about the next century. The most brilliant summary of the evidence I have seen is:

"Climate Change: Lessons for our Future

from the Distant Past"

Sir David F. Hendry

http://www.economics.ox.ac.uk/Research/wp/pdf/paper485.pdf

Main objectives of much of my current research with John Duca and Anthony Murphy (Dallas Fed)&Janine Aron (Oxford)

- Understanding interactions between the financial sector and the real economy.
- Understanding the secular decline in US saving rate.
- Understanding potential financial instability.
- Interpreting data on the growth of credit, money and asset prices – crucial for central banks.
- Handling major evolutionary structural change in econometric modelling.

Vast change in US credit market architecture since 1970

- Spread in credit card ownership and instalment credit from 1960s to 2000s.
- Creation of Government Sponsored Enterprises to underwrite mortgages in the 1970s (e.g. Fannie Mae, Freddie Mac).
- Falling IT costs transformed payment and credit screening systems in 1980s and 90s.
- Expansion of sub-prime mortgages in 2000s.

Changes in credit market architecture were spawned by the deregulation of financial and credit markets

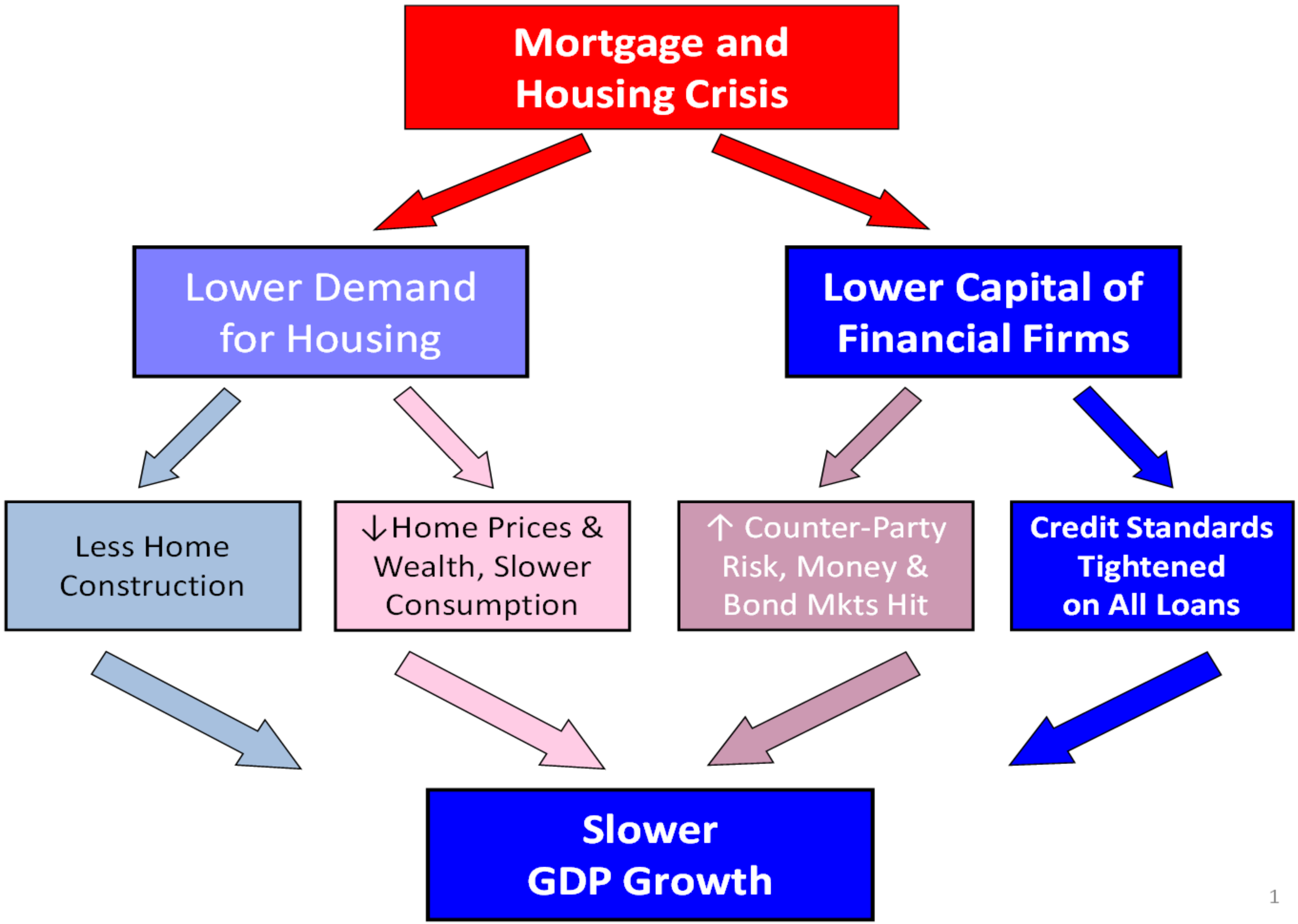
- interest rate ceilings lifted in the early 1980s
- deregulation of banks and investment banks
- rise of private label securitization backed by credit default obligations (CDOs) and swaps
- political pressure to extend credit to poor

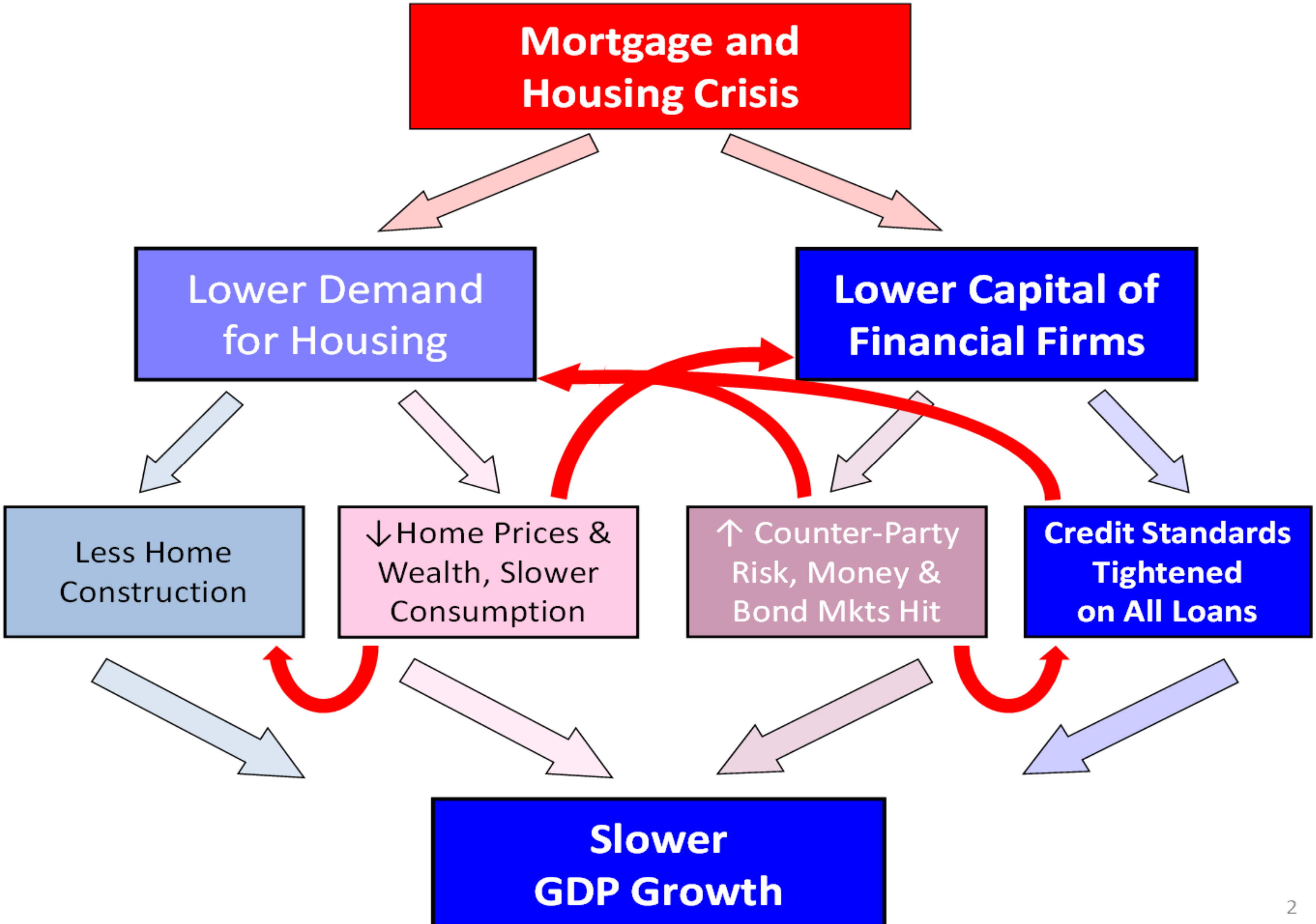
This led to the sub-prime boom and bust which conventional housing models missed.

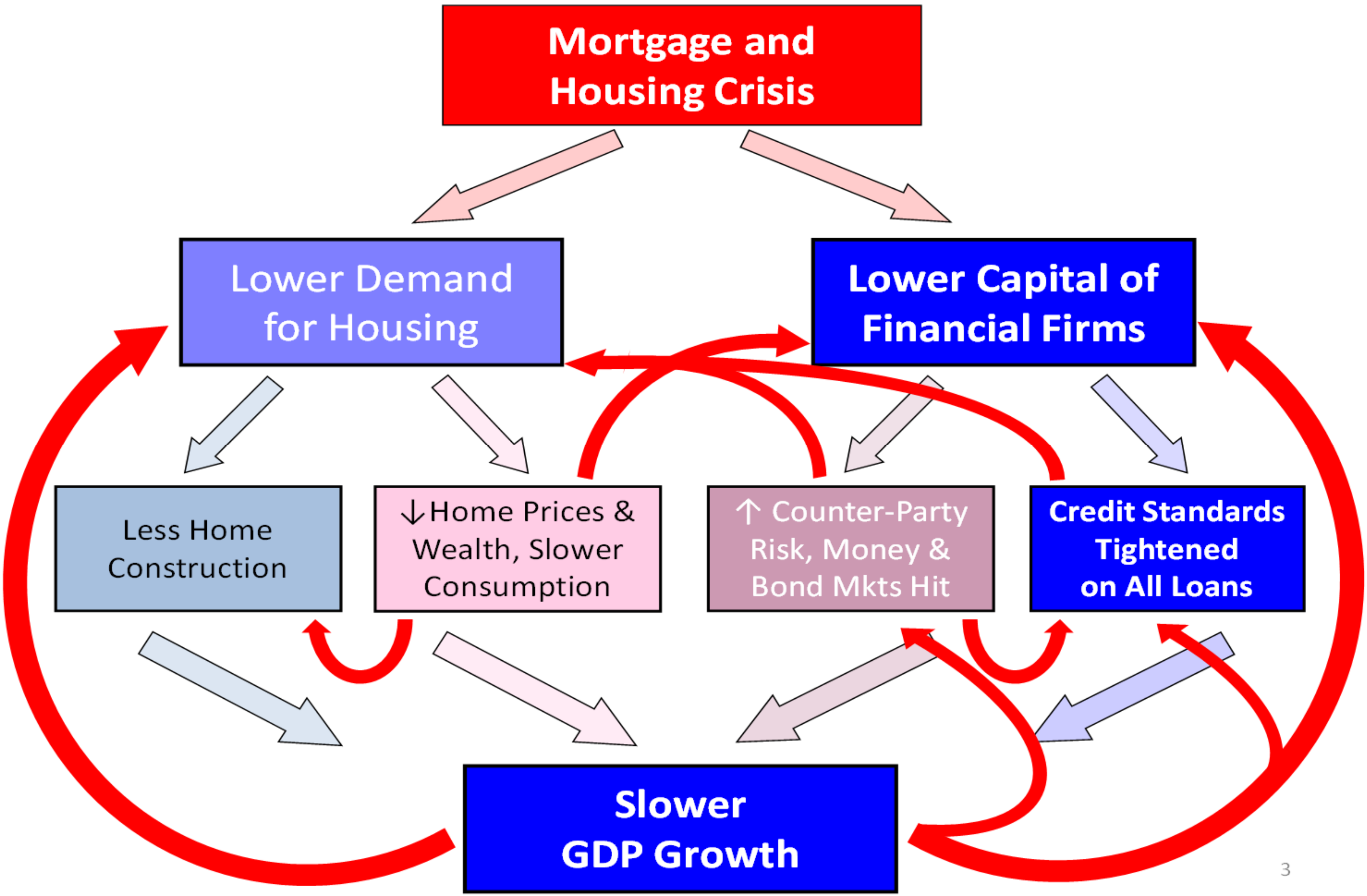
Our "credit-augmented permanent income hypothesis" for consumption

- Allows for **shifting access to consumer and mortgage debt**.
- **No** efficient market assumption—transactions costs affect housing, shifting risk premia alter most asset prices.
- Does **not** impose rational expectations assumption: uses University of Michigan survey for consumer expectations.
- Unlike in most DSGE models, asset prices are **not** just indicators of expectations.
- Consumers **not** assumed to be rational inter-temporal optimisers operating in perfect credit and asset markets who can smooth away all recessions: allow data to speak.

Modelling the household financial accelerator:




Mortgage and Housing Crisis
Lower Demand for Housing
Lower Capital of Financial Firms
Less Home Construction
↓Home Prices & Wealth, Slower Consumption
↑ Counter-Party Risk, Money & Bond Mkts Hit
Credit Standards Tightened on All Loans
Slower GDP Growth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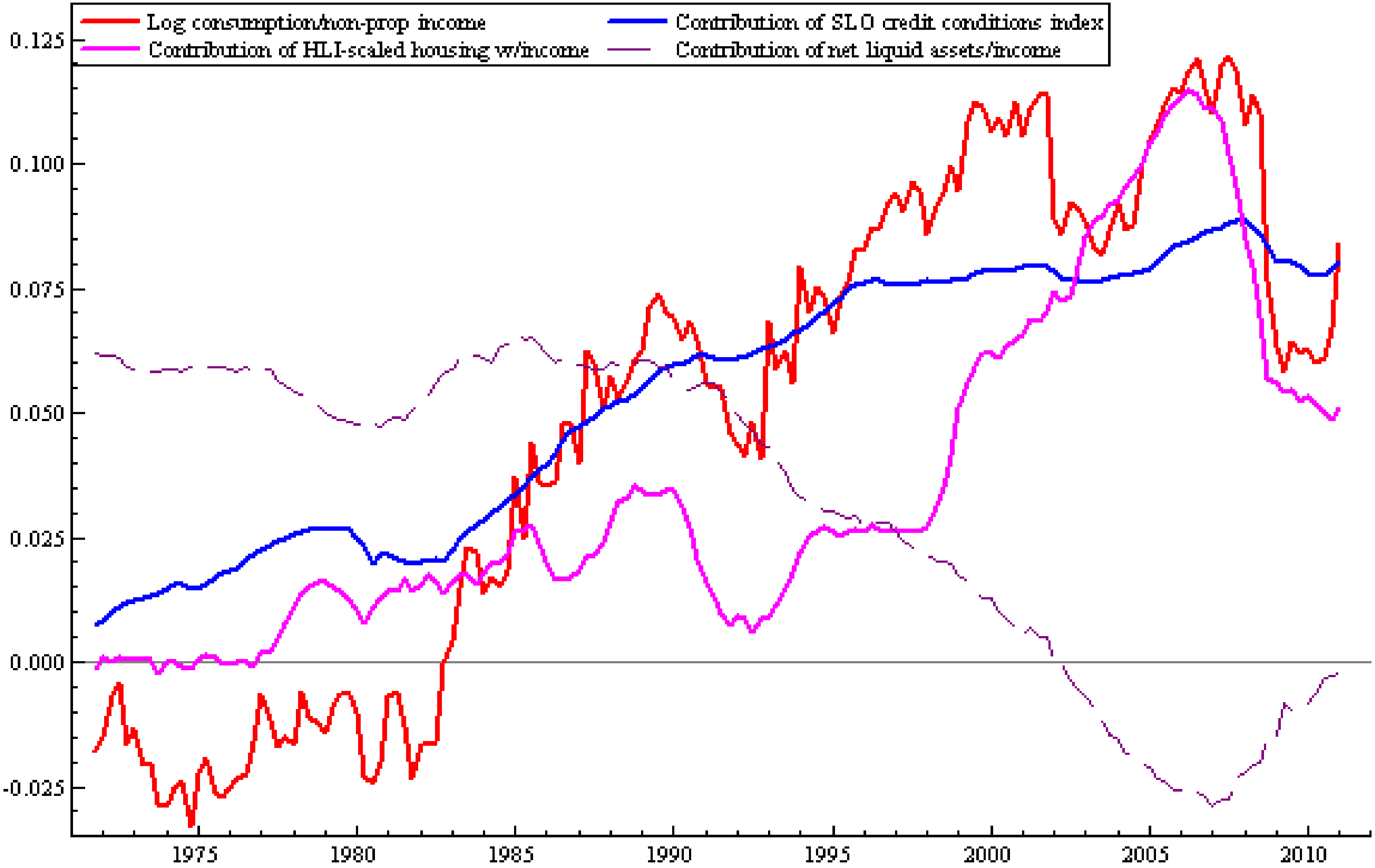
Modelling the household financial accelerator

- In Muellbauer and Murphy, "Is the UK Balance of Payments Sustainable?", Economic Policy 1990 (discussion by Mervyn King), we applied an early version of the hh financial accelerator to the UK's 1980s/90s local pre-run of the global economic crisis.
- Our current modelling is more sophisticated:
- We estimate **a system of equations** for consumer spending, mortgage refinance rate, equity withdrawal (growth of mortgages minus acquisition by households of housing), mortgage debt and house prices.
- Latent Interactive Variable Equation System (LIVES) to extract mortgage credit conditions index.

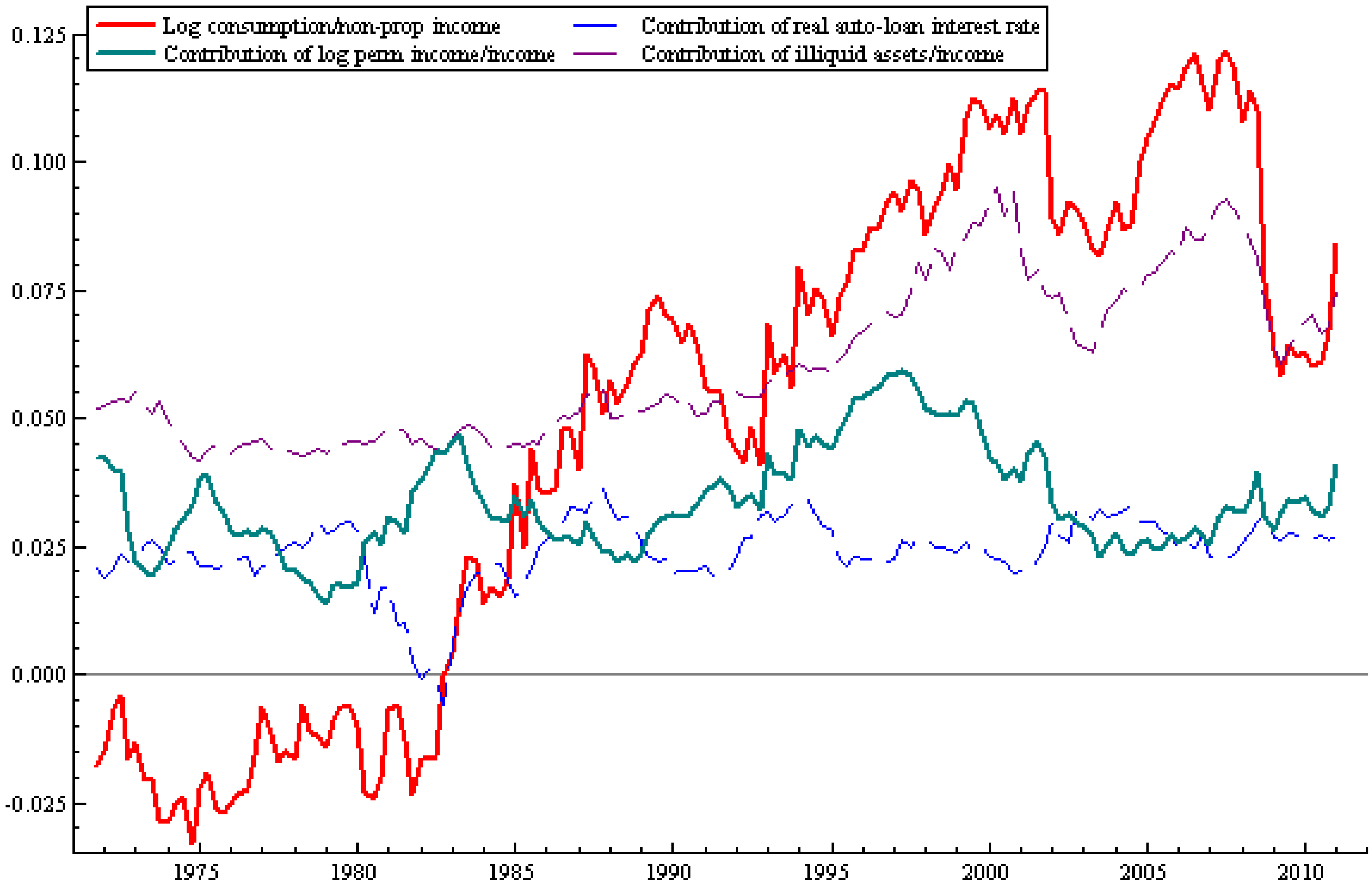
Some key insights

- **Impact of housing wealth on consumption** has grown with mortgage market liberalisation: at peak, $100 rise led to $3.6 increase in spending.
- **'Money' matters**: the impact of liquid assets minus debt on consumer spending per $ is about 6 times the size of the stock market wealth effect (often in pension plans).
- **Reveals household vulnerability to debt** when asset prices or incomes fall.
- Model **explains shifting correlation** of credit with consumption: increased access to credit increases both consumption and debt, but high debt, given access, is bad for consumption.
- **Need good models** to interpret flow of funds data and warn of possible financial instability.

Contributions of shifts in access to credit to log consumption/income



Contributions of log (perm income/income) etc. to log consumption/income



Conclusions: remarkable credit market transformation and vulnerability of US to credit crunches and asset price declines

- Debt-fuelled consumption busts problematic: it is hard to build up liquid assets and pay back debt, while asset prices can fall suddenly.
- Unsustainable credit architecture was a major problem.
- Massive policy interventions to stop even worse outcomes: record interest rate lows, fiscal boost…
- financial system bailouts and massive substitution by FHA to compensate for withdrawal of private credit, partic. for mortgages – effectively government-backed housing loans.
- Companion paper with John Duca and Anthony Murphy on US house prices suggests most of correction is done, after correctly forecasting a short-run decline after a housing tax credit expired.

Conditional Eurobonds to help resolve Europe's sovereign debt crisis

- Sovereign debt concerns raise questions on solvency of govt's and banking sector – shrinking credit supply feeds back on real economy, undermining solvency further.
- Sovereign spreads reflected rising market panic on this feedback loop and whether Eurozone would break apart.
- Under conditional Eurobonds, each country pays a risk-spread into a common fund which helps insure the guarantor governments who collectively underwrite Eurobonds.
- Gold and forex reserves could be used as collateral.
- The risk spreads formula, linked to competitiveness and debt/GDP, rewards countries for bringing down debt and structural reforms, punishes those who do not.
- NOT a 'transfer union', feared by Germany.
- see http://www.voxeu.org/index.php?q=node/7332
- http://www.economist.com/blogs/freeexchange/2011/11/euro-bonds#comment-1141150

My UK policy recommendations

- UK household + government + banking sector debt to GDP at world record levels.
- How to walk the tight-rope, combining fiscal austerity with growth promotion?
- UK is under-housed (quite different from Ireland, Spain and US).

Policy 1 : Reduce supply constraints, improve incentives for investment in private rented sector.

Planning system and implicit tax-payer subsidy for 100-fold planning gains for owners of land given planning permission, are the core problems.

My UK policy recommendations

Policy 2: Invest in infra-structure and human capital, paid for by public sector pay-cuts (instead of wasteful NHS restructuring), pension reform and mansion tax.

Higher education is one of UK's great export industries, hampered by clumsy new immigration restrictions.

Policy 3: Radically reform global tax-havens where UK has jurisdiction, to aid global efforts to reign in tax-avoidance and the power of the oligarchs.

- Some policies on the right lines: Sterling depreciation, credit easing. But why has BOE been so backward? Long history of not understanding credit markets.

Forecasts hinge on global assumptions

Three great risks are:

German brinkmanship leading to Eurozone disintegration and banking/credit crisis.

Stagnation in the US: policy paralysis and continued drag from property markets.

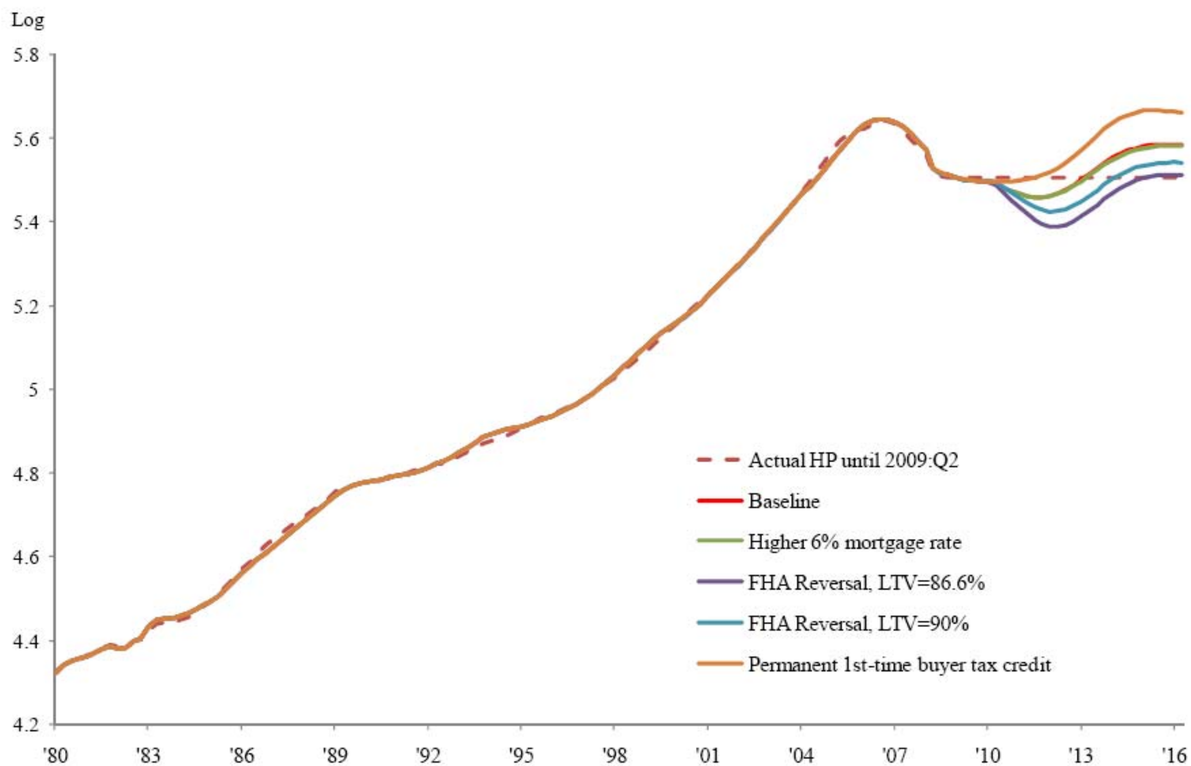
China hits the buffers: 35% consumption to GDP ratio (a world record low?); speculative property development a large share of investment; a model for corruption and ‘get-rich-quick’;local government revenue based on land sales for property development; shadow banking system hard to control; investment falls feed back on GDP and back on investment….

Forecasts hinge on global assumptions

- I believe Eurozone problems are soluble (with conditional Eurobonds, internal devaluations and structural reforms). However, UK GDP in 2011Q4 and 2012Q1 will have been affected by the crisis.
- US house price forecasts made in Dec 2009 by Duca, Murphy and myself correctly foresaw second leg of house price falls after tax credit was withdrawn in June 2010. http://www.aeaweb.org/aea/conference/program/retrieve.php?pdfid=446
- But bottom in average US nominal house prices in 2012, removing much of negative drag on US economy.

Our Dec 2009 US house price simulations –see Jan 2010 AEA programme.

Figure 6. House Price Simulations



Forecasts

	2011				2012			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GDP				-0.3	-0.1	0.4	0.6	
Inflation				4.3	3.0	2.7	2.5	
Unemployment				8.2	8.3	8.3	8.2	
Interest Rates				0.5	0.5	0.5	0.5	
French Bond Yields					2.9			

Forecasts hinge on global assumptions

- UK forecasts less dependent than Germany on China assumption: China slowdown would reduce oil and commodity prices – like a big tax cut for us, though exporters to China lose.
- US recovery will accelerate in 2012 assuming Eurozone crisis is soon fixed. By Q2, some benefits for UK will begin to feed through. Hence Q2 and Q3 will look better than 2011Q4 and 2012Q1.
- Inflation will drop as ‘base effects’ removed. Could drop more if China growth stalls.
- Unemployment lags behind GDP.
- Max French bond yield assumes Euro crisis fix.