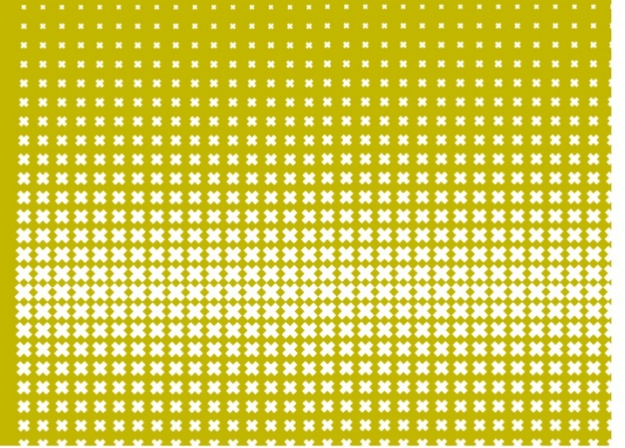




Coen N. Teulings



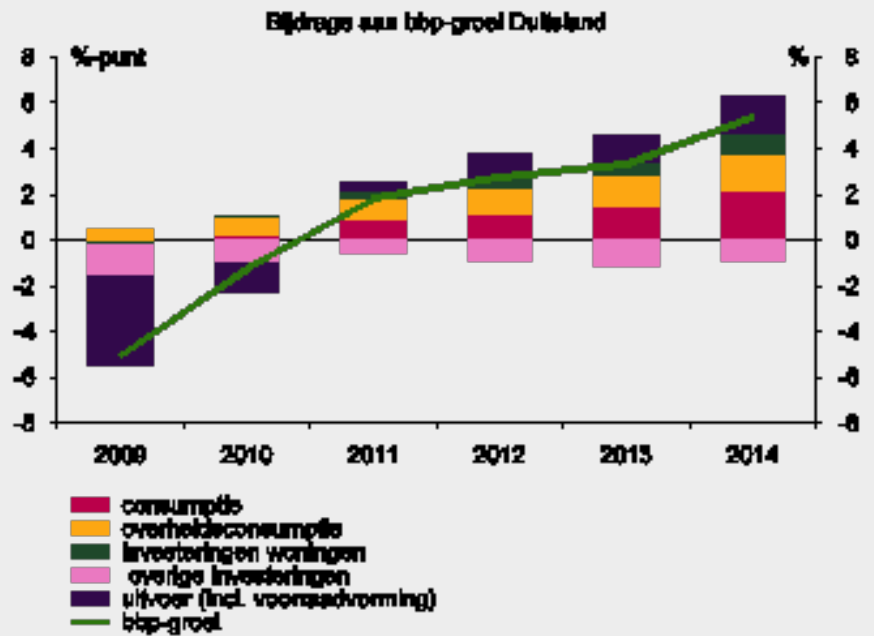
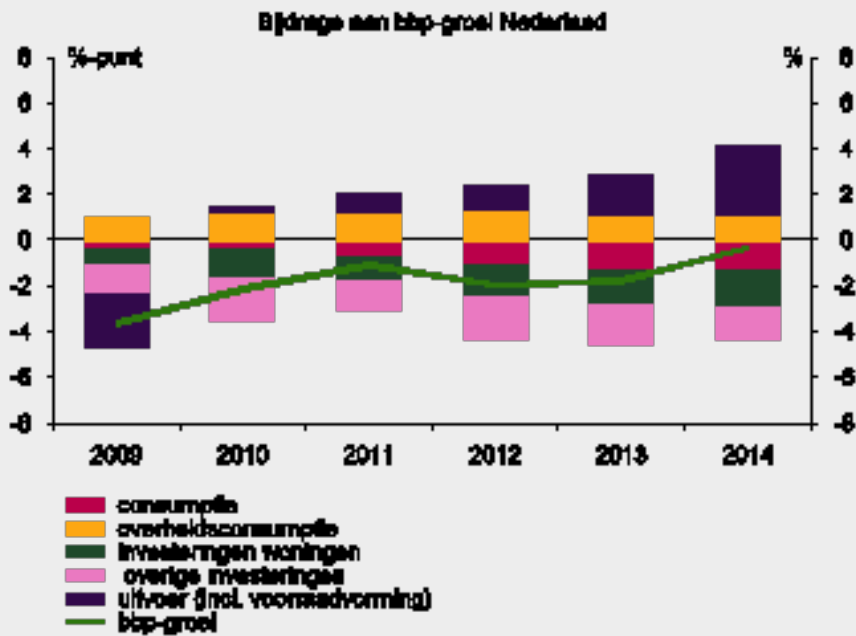
Forecasting in times of crisis



Menu of the day

1. State of the Dutch economy:
“it is the housing market, stupid!”
2. Excess volatility of assets:
payg ↔ funded pensions
3. What is macro?
4. New trends in macro forecasting
Forecasting the crisis?

Netherlands versus Germany



State of the Dutch economy

- Since 2008: 6% gdp loss compare to Germany
- Driver?
 - domestic consumption
 - investment in housing
- Why? Institutional problems in:
 - budgetary policy (too much austerity)
 - **housing (crisis, AFM, tax system, rental market)**
 - banking (high exposure to housing market)
 - pensions (wrong regulatory framework)
- Long balance sheets



Financiële activa van huishoudens

	Euro-17	NL	BE	DEN	DU	FR	IT	SP
Bruto	197	304	258	264	182	202	219	160
Spaargeld	72	71	83	49	74	61	71	80
Aandelen	43	33	78	69	32	45	60	41
Overige effecten	23	15	36	17	14	25	49	16
Pensioen	59	185	61	128	62	72	38	23
Minus: LT leningen	61	124	53	134	56	55	42	79
KT leningen	3	4	2	6	3	2	4	3
Overige passiva	5	7	1	9	1	10	6	6
Netto	128	170	203	114	122	135	168	72

Housing market & Generations

- Value loss: 25% = 300 biljon E
 - 10%: tax treatment
 - Rest: AFM, crisis, budgetary policy
- Double negative feedback loop
- Wealth transfer between generations
- Hence: transfer employment to tradable sector
 - Large balance of payments surplus
- Should have been offset by budgetary policy

Excess volatility of financial assets

■ Volatility:

- GDP: 1-2%
- Financial assets 10-20%

■ Log GDP \approx random walk, profit share \approx fixed

■ Hence: both equal volatility? *Quod non*

■ Market for intergenerational insurance

- Fixed share of GDP more stable than fin.assets
- Hence: payg has benefits above funded systems
- Proper discussion of risk assignment is missing

What is macro?

- 4 interpretations of Keynes
 1. Fixed price equilibria/non-market clearing
 2. Coordination failures/equilibrium selection: IRS
 3. Instability of financial markets/animal spirits
 4. Overlapping generations/political commitment

What is macro? Some claims

- Ad 1: Far too much attention for price rigidity
 - Bequest of the 1970's
- Ad 2: Too little attention
- Ad 3&4: Friedman's victory:
lifecycle hypothesis: lifetime wealth-consumption
- Ad 3&4: All current macro models obsolete:
model balance sheets!
- Ad 4: politics is a major source of instability

New trends in macro forecasting

■ The demise of structural models:

- $Bx = a + Ax_{-1} + e$
- Simple for sake of argument: 1 lag, linear
- Identification requires restriction on B
- Sims: these restrictions tend to be arbitrary
- Elbourne&Teulings: world trade
- What is forecasting?? No needless sidesteps
- Hence: multiply by B^{-1} , or: $B = I$

New trends in macro forecasting

■ Hence: Var models

- $x = a + A x_{-1} + e$
- Simple: 1 lag, linear, k variables
 - Non-linearity?
- Blanchard&Quah: k=2, unemployment & growth
- Elbourne&Teulings: equal to Saffier
- (1 lag): state of economy summarized by 2 statistics?
 - No body believes that
- Larger k runs into trouble, more so for long horizons
- Why? (pooling as an unsatisfactory answer)

New trends in macro forecasting

■ Hence: Bayesian Var models

- $x = a + A x_{-1} + e$
- Curse of dimensionality: $A = \text{dimension } k^2$
 - $|\text{Eigen values of } A| > 1$, reality does not explode
- Forecast error = $\text{Var}(e) + \text{Var}(A)$
- Leaving out variables = {part of $A = 0$ }
- Offers a natural prior
- Prior can be derived from the data
- Conclusion: model uncertainty is key

New trends in macro forecasting

■ Applications

- Calculation of output gaps
- Integration of recent information
- Offers much greater flexibility / permanent updating
- Financial variables
- Decomposition of reasons for update
 - New info on x or new estimates of A
 - What blocks?
- Currently: extending B&Q with house prices



New trends in macro forecasting

- Forecasting financial crisis?
- Contemplation:

role of macro models in policy analysis

The end

