Discussion on Assessing Debt Sustainability

Columbia IPD - CIGI Conference on *Sovereign Debt Restructuring*

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Two papers:

- IMF Debt Sustainability Analysis (DSA)
- Risk management approach for reprofiling/restructuring of public debt (Consiglio and Zenios)

Debt policy decisions based on scenarios rather than on expected values

- Sustainability is a subjective concept
- And the process that determines it is stochastic, making any statement on sustainability probabilistic
- Solvency condition = Transversality condition in economics

Definition

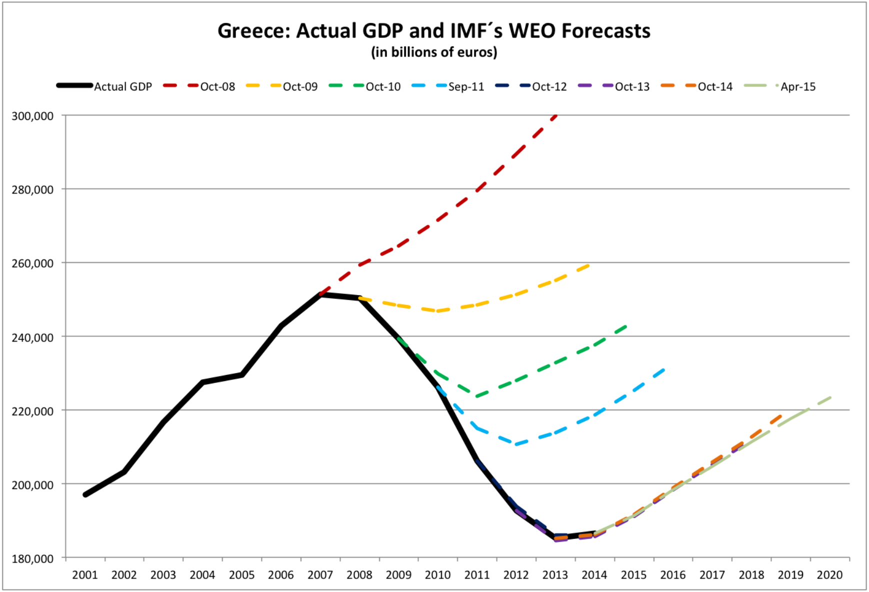
A debt trajectory $\{d_t\}_{t=0}^{\infty}$ *is sustainable if*

$$lim_{t\to\infty}\frac{d_t}{\Pi_{t=0}^{\infty}(1+r_t)}=0$$

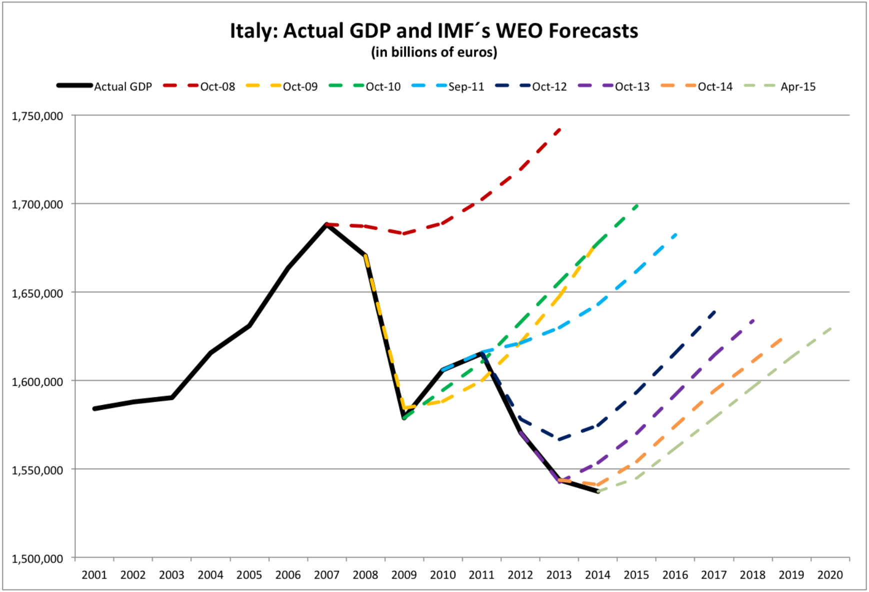
- But we don't really know $\{d_t\}_{t=0}^{\infty}$ or $\{r_t\}_{t=0}^{\infty}$, we just make conjectures on feasible paths for $\{d_t^e\}_{t=0}^{\infty}$ and $\{r_t^e\}_{t=0}^{\infty}$
- DSA judges whether those paths are "sustainable", i.e. consistent with a solvency condition that in practice means full repayment

- DSA recognizes that markets are not efficient
  - Othwerwise, no need for DSA: just look at market risk premia on sovereign debt
- Let r^M be the market interest rate and $r^A = r(r^M)$ the equilibrium interest rate calculated by the analyst that has different expectations than the market
- Suppose analyst $=$ IMF. If $r^A < r^M$, what should the analyst do? To judge debt as more likely to be unsustainable given market expectations, or to signal that market expectations are not rational?

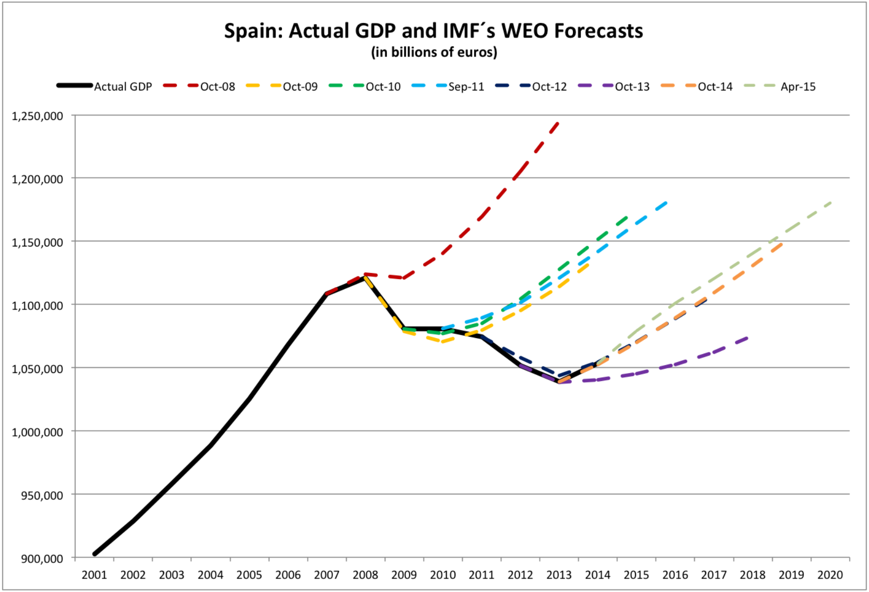
- State variables in period t
  - They define **Indicators**
- Projections
  - Require use of economic theory (models for projections)

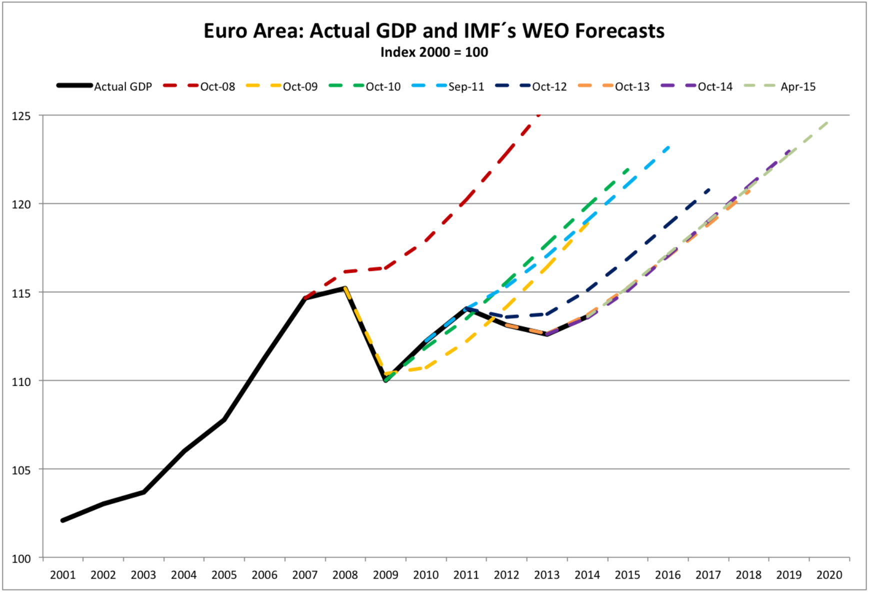

Greece: Actual GDP and IMF´s WEO Forecasts
(in billions of euros)
Actual GDP
Oct-08
Oct-09
Oct-10
Sep-11
Oct-12
Oct-13
Oct-14
Apr-15
300,000
280,000
260,000
240,000
220,000
200,000
180,000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020

IMF forecasts and reality: Italy



IMF forecasts and reality: Spain




Euro Area: Actual GDP and IMF´s WEO Forecasts
Index 2000 = 100
Actual GDP
Oct-08
Oct-09
Oct-10
Sep-11
Oct-12
Oct-13
Oct-14
Apr-15
125
120
115
110
105
100
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020

- Fiscal policy
- Debt policy
    - Judgments on need of debt restructuring
    - Judgments on necessary size of haircuts to restore sustainability
    - Programs of temporary assistance
        - Risk of inter-creditor inequities
- Endogeneity issue: Size of the haircut determines growth trajectory

- Already a recognition of need for DSA
- Still some for lessons from previous crises in countries that were following the recommendations of the IMF, and for more sound use of economic theory (including good research from IMF researchers)

- Differential treatment of contingent liabilities
  - IMF paper: contingent liabilities are defined as policy reactions that increase the value of expected fiscal deficit, as bailouts to the banking system (hidden-deficit)
  - But sustainability can also be improved by the use of other contingent liabilities (like GDP indexed bonds, or "trade-partners GDP" indexed bonds)
    - The design of the IMF lending framework and DSA could promote a more extensive adoption of these instruments