Minsky & the Eurozone Predicament: Transcending the Dismal Science

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The Eurozone Predicament

- Investors and policy makers (still!) have a rather limited ability to perceive macrofinancial balances (MFB)
- A simple MFB approach reveals the eurozone is flirting with a Minsky Meltdown/Fisher Debt Deflation path
- Attempts at fiscal retrenchment are likely to prove selfdefeating: the unrecognized Paradox of Public Thrift
- Fiscal retrenchment across the GIIPS will set off 2 contagion vectors via banks & trade to swamp core
- We are missing a price or policy adjustment mechanism to force current account surplus nations to reinvest in productive capacity in CU deficit nations (EU & Global)

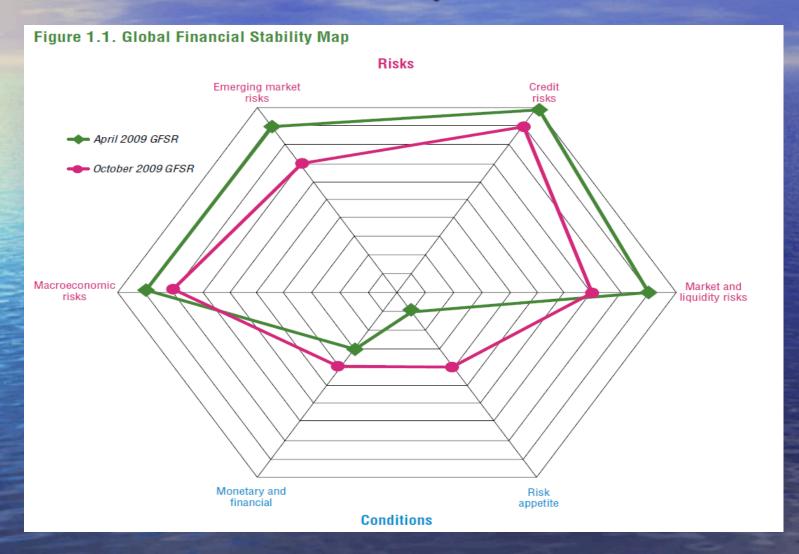


Table 1.10. Changes in Risks and Conditions since the April 2009 Global Financial Stability Report

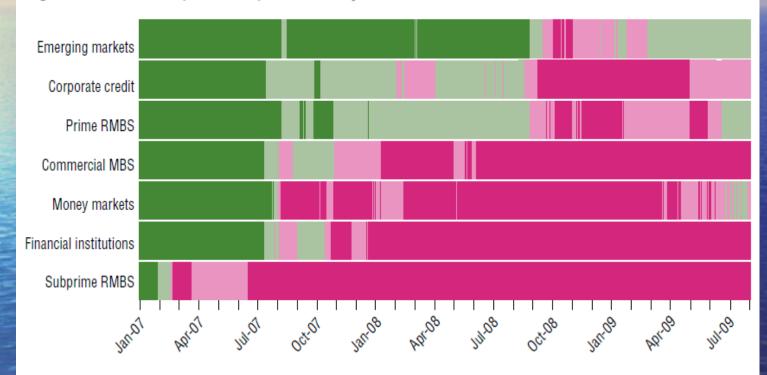
Conditions and Risks	Changes since April 2009 GFSR	
Monetary and Financial Conditions G-7 real short rates G-3 excess liquidity Financial conditions index Growth in official reserves G-3 lending conditions	↑ ↓ ↑ ↓	
Risk Appetite Investor risk appetite survey Investor confidence index Emerging market fund flows	↑↑↑ ↑ ↑	
Macroeconomic Risks World Economic Outlook global growth risks G-3 confidence indices OECD leading indicators Implied global trade growth Global breakeven inflation rates Mature market sovereign CDS spreads	↓ ↓ ↔ ↓ ↓	

Emerging Market Risks	$\uparrow \uparrow$
Fundamental EMBIG spread	T
Sovereign credit quality	\leftrightarrow
Credit growth	<u> </u>
Median inflation volatility	†
Corporate spreads	1
Credit Risks	1
Global corporate bond index spread	\downarrow
Credit quality composition of	
corporate bond index	\leftrightarrow
Speculative-grade corporate default	
rate forecast	↓
Banking stability index	↓ ↑ ↓
Loan delinquencies	1
Household balance sheet stress	1
Market and Liquidity Risks	$\downarrow\downarrow$
Hedge fund estimated leverage	\leftrightarrow
Net noncommercial positions in	
futures markets	\leftrightarrow
Common component of asset	
returns	\leftrightarrow
World implied equity risk premia	\leftrightarrow
Composite volatility measure	<u> </u>
Funding and market liquidity index	1

Source: IMF staff estimates.

Note: Changes are defined for each risk/condition such that ↑ signifies higher risk, easier monetary and financial conditions, or greater risk appetite, and ↓ signifies the converse; ↔ indicates no appreciable change. The number of arrows for the six overall conditions and risks corresponds to the scale of moves on the global financial stability map.

Figure 1.2. Heat Map: Developments in Systemic Asset Classes



Source: IMF staff estimates.

Note: The heat map measures both the level and one-month volatility of the spreads, prices, and total returns of each asset class relative to the average during 2003–06 (i.e., wider spreads, lower prices and total returns, and higher volatility). That deviation is expressed in terms of standard deviations. Dark green signifies a standard deviation under 1, light green signifies 1 to 4 standard deviations, light magenta signifies 4 to 7 standard deviations, and dark magenta signifies greater than 7 standard deviations. MBS = mortgage-backed security; RMBS = residential mortgage-backed security.



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There has been good and bad news for the Icelandic economy. The good news is that it is recieving a lot of attention. Recent volatility in Iceland's asset markets have raised concerns about the fragility of Iceland's economy. In this respect many have looked to the country's large current account deficit. This study provides a framework for evaluating financial fragility by examining the fundamentals of Iceland's economy to see whether they suggest that the country could go down the traditional routes to financial instability.

There are three traditional routes to financial instability that have manifested themselves in recent financial crises: 1) financial liberalization with weak prudential regulation and supervision, 2) severe fiscal imbalances, and 3) imprudent monetary policy. None of these routes describe the current situation in Iceland. The economy has already adjusted to financial liberalization, which was already completed a long time ago, while prudential regulation and supervision is generally quite strong. Fiscal imbalances are not a problem in Iceland: quite the opposite, with Iceland having an

The analysis in our study suggests that although Iceland's economy does have some imbalances that will eventually be reversed, financial fragility is currently not a problem, and the likelihood of a financial meltdown is low. However, the possibility that multiple equilibria might occur suggests that policy measures to bolster confidence in the Icelandic economy and financial system would be beneficial. We suggest four such measures: 1) financial supervision might be more effective if it

What's Missing from Standard Applied Financial Stability Analysis?

- Sustained flow imbalances need to be adequately tracked for aggregate sectors, industries, income distributions, and large institutions
- Flow imbalances build up as stock disequilibria on balance sheets over time
- Watch fast, large, persistent balance sheet growth, especially when driven by rapid credit flows
- Do not assume investors, rating agencies, or market based risk indicators are accurately reflecting "true" fundamental risk conditions (remove EMH bias)

Aggregate Income = Aggregate Expenditure
Y = E

Total Saving = Total Investment S = I

True for economy as a whole during any accounting period

But not necessarily true for any one sector

Divide the economy into three sectors:

- Government
- Domestic Private (Household and Business)
- > Foreign

Sector Financial Balance SFB = Y - E for that sector (or equivalently, S - I)

Sector Financial Balance can be in:

- Surplus: Y > E, S > I
 Accumulate financial assets
- \triangleright Neutral: Y = E, S = I
- Deficit: Y < E, S < I</p>
 Issue financial liabilities

- 3 Sector Financial Balances (FB):
- ➢ Government FB = T − G
- \triangleright Foreign FB = M X, or (-1) (Current Account Balance)
- Domestic Private Sector FB = (Sh + Sb) (Ir + Inr)

Sum of sector Financial Balances must net to zero:

DPSFB + GFB + FFB = 0

or

DPSFB + GFB - CUB = 0

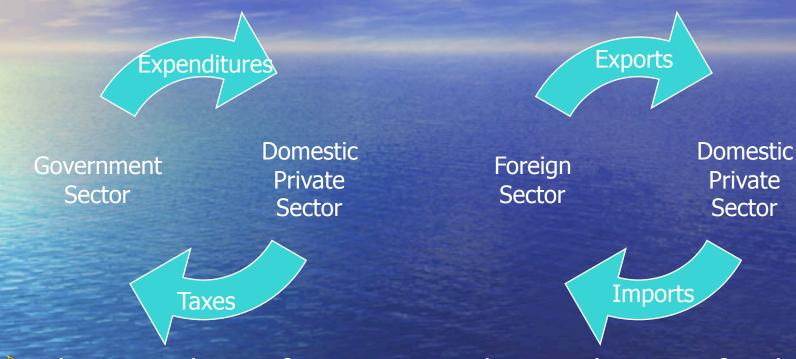
Financial balances describe sector cash flows

Like CF from operations & investment in company accounts

Over time, flow imbalances change the stocks of assets and liabilities on balance sheets (stock disequilibria)

Meaning persistent deficit spenders:

- Issue liabilities
- > Run down cash assets
- Sell less liquid assets
- Default



- Changing the FB for one sector has implications for the remaining sectors
- Sector balances <u>cannot</u> be analyzed in isolation it all has to add up

Domestic Private Sector Financial Balance increases when:

- Government runs a deficit
- Current account in surplus
- > CUB > GFB

DPSFB decreases when:

- Government runs a surplus
- Current account in deficit
- CUB < GFB

DPSFB + GFB - CUB = 0

DPSFB = CUB - GFB

Government & Foreign Sector Financial Balances

Fiscal Surplus

Current Account Deficit

Foreigners Net Save

Current Account Surplus

Foreigners Deficit Spend

Adding the Domestic Private Sector Financial Balance

DPSFB = CUB - GFB

Current Account Deficit

Domestic Private Sector Financial Balance = 0

Fiscal Surplus

Current Account Surplus

When CUB = GFB (as in the "twin deficits" argument, with perfect twins), DPS Financial Balance = 0

3 Sector Financial Balances Map

Domestic Private Sector Financial Balance = Current Account Balance - Fiscal Balance

DPS Deficit

Current Account Deficit

DPS Deficit

Domestic Private Sector Financial Balance = 0%

Fiscal Surplus

DPS Deficit

DPS Surplus

Current Account Surplus

DPS Surplus

Domestic Private Sector Deficit



Fiscal Surplus

Current Account
Deficit -2

2%--1%

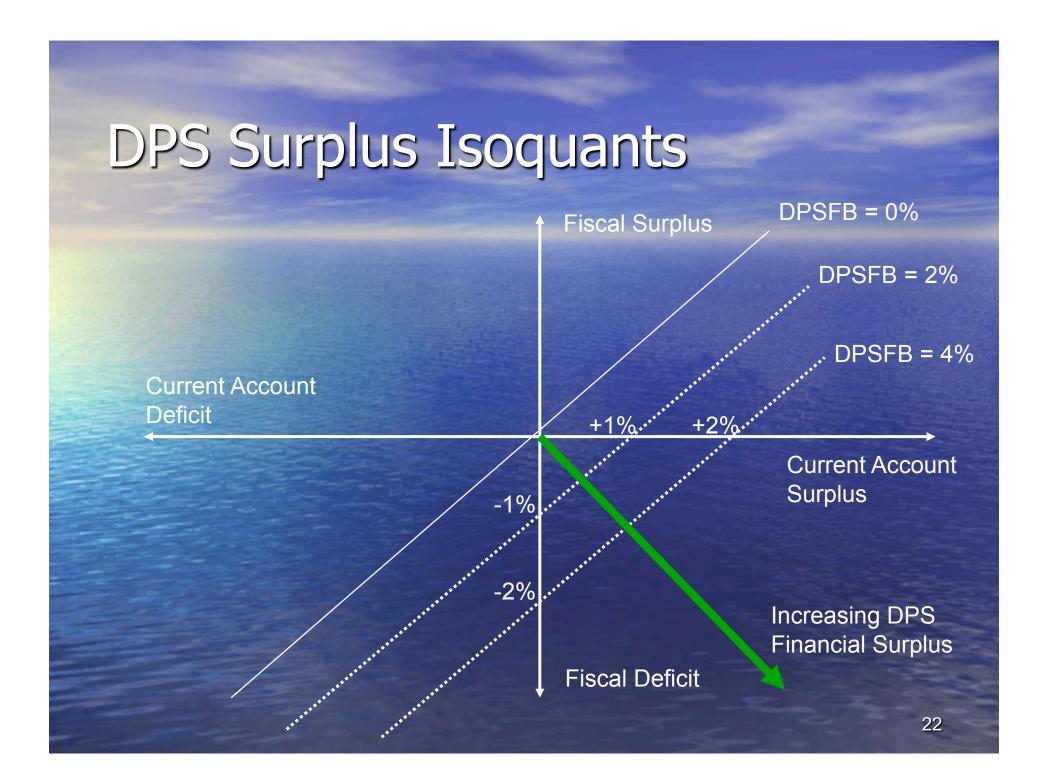
Current Account Surplus

DPSFB = -4%.

DPSFB = -2%

DPSFB = 0%

DPSFB = CUB - GFB



- In order to run a Government surplus
- > And a Domestic Private Sector financial surplus
- > So that both sectors can service and reduce debt
- Need a Current Account surplus > Government surplus
- This is how Asia can run fiscal surplus and achieve high private net saving (acquire financial stability in 1 nation)
- Reducing a fiscal deficit will erode the DPSFB unless the current account balance improves in tandem with GFB (strict assumption of identical "twin" deficits)

Add a Fiscal Policy Constraint

Fiscal Surplus

Current Account Deficit

Current Account Surplus

Domestic Private Sector Financial Balance = 0

Fiscal Deficit = -3% of GDF

Restricts the Range of Outcomes Where a DPS Surplus is Achievable

Fiscal Surplus

Current Account Deficit

Current Account Surplus

Domestic Private Sector Financial Balance = 0

Fiscal Deficit = -3% of GDF

The EMU Triangle:

FX Policy Constrained, Current Account Surplus

Hard to Achieve

Fiscal Surplus

Current Account Deficit

Current Account Surplus

Domestic Private Sector Financial Balance = 0

Very little room to also achieve DPS Surplus

Fiscal Deficit = -3% of GDF

EMU & SGP Can Increase Odds of Private Sector Financial Fragility

Current Account Deficit

Fiscal Surplus

Current Account Surplus

Domestic Private Sector Financial Balance = 0

Fiscal Deficit = -3% of GDF

The Eurozone Predicament: 3 Policy Straitjackets & Market Fundamentalism

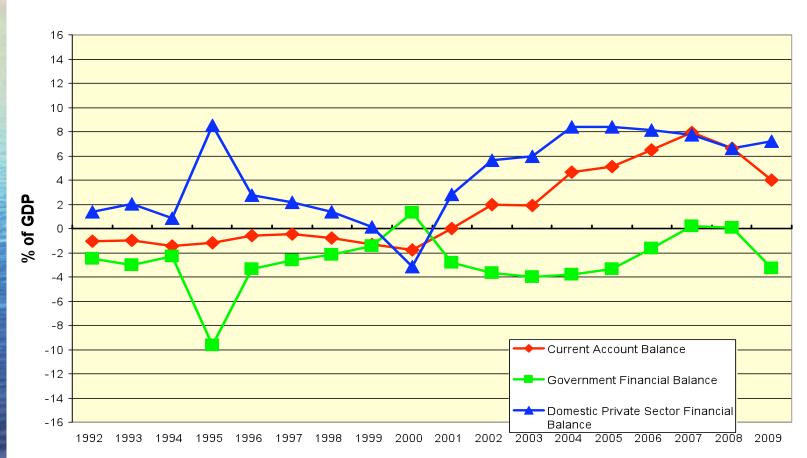
- Common currency means varying nominal exchange rate is not available to any one nation
- > Fiscal policy is subject to 3% fiscal deficit floor with fines
- Monetary policy is subject to one size fits all committee
- Burden of adjustment is largely shifted onto relative prices, private income deflation, and product innovation
- Because markets are presumed to gravitate to full employment, utility maximizing equilibrium best on their own, undistorted by "artificial" policy interventions

Applied Financial Stability Analysis: The Eurozone Predicament

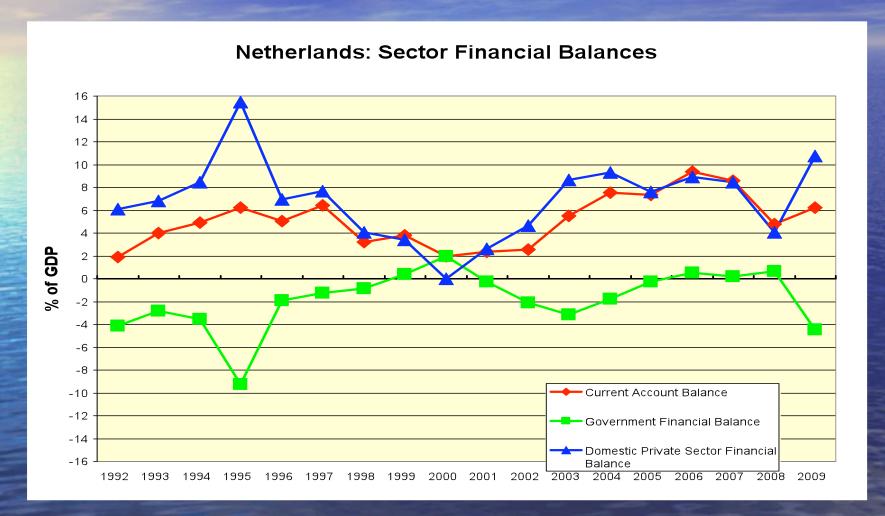
- If you rapidly reduce fiscal deficits in eurozone, you will also reduce private sector net saving
- More difficult for private sector to service & reduce debt
- Quest for fiscal sustainability in eurozone implies bank risk higher than government risk as private loans sour
- Unless maxi-depreciation can produce large increase in trade balance for region as a whole, otherwise:
- Peripheral eurozone trade balance swing trips up German, Dutch exporters unless new markets found

The Paragons of Virtue



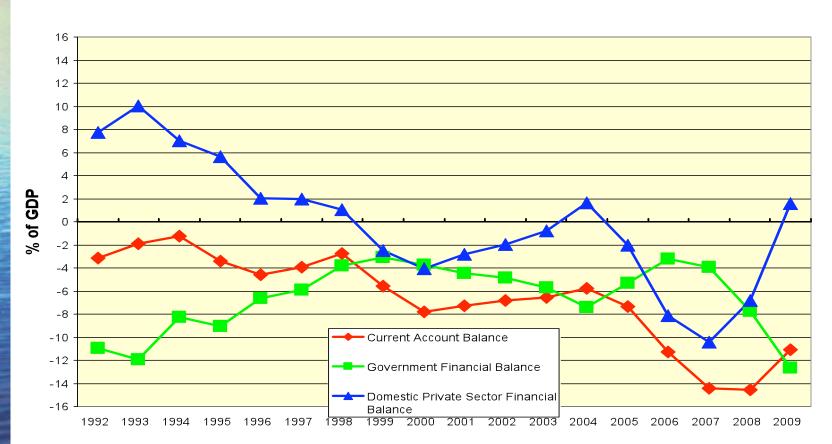


The Paragons of Virtue

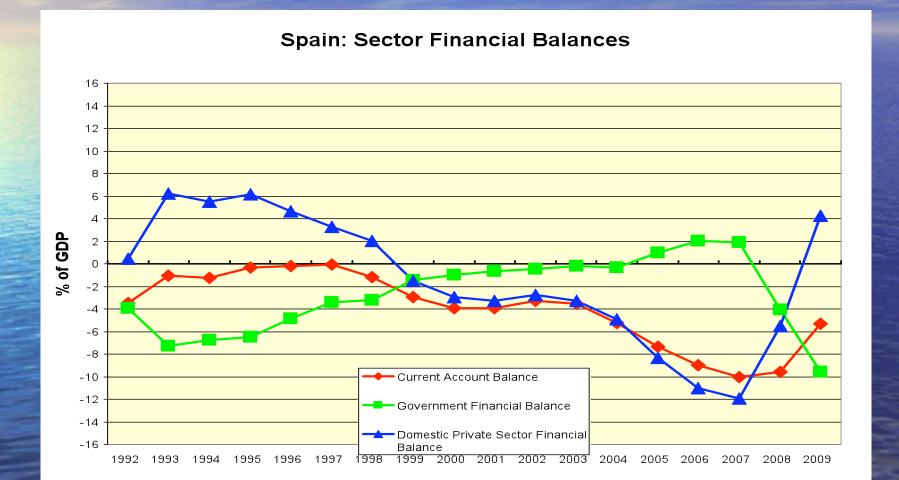


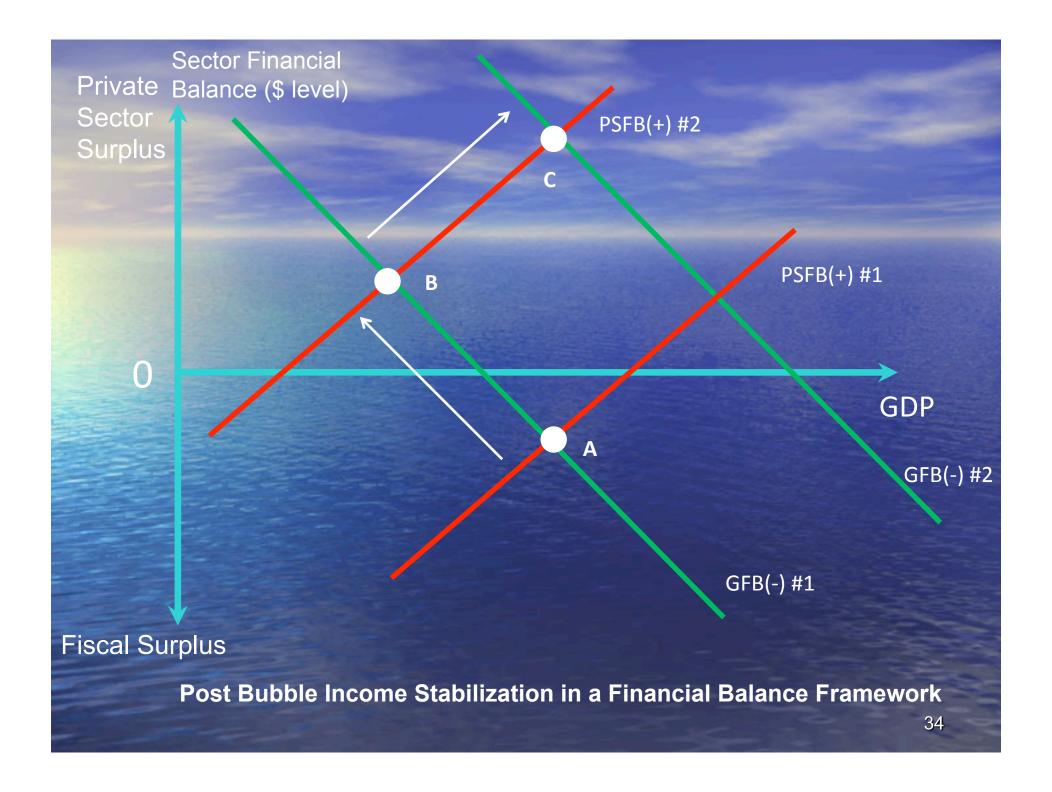
The Poster Boys of Sloth





The Poster Boys of Sloth

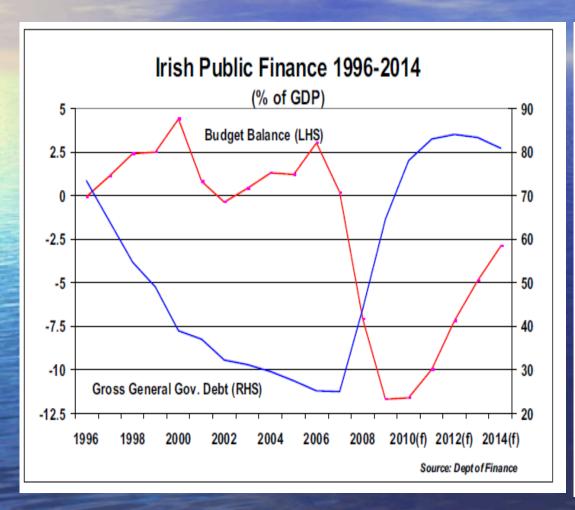




The Paradox/Vortex of Public Thrift

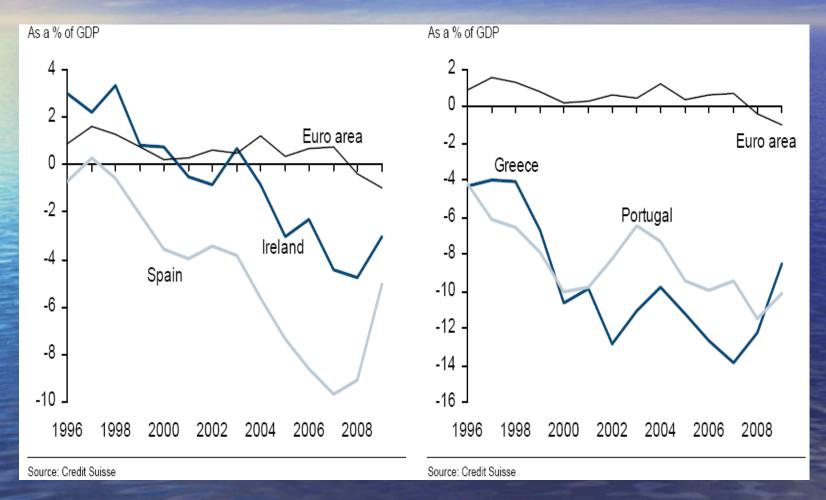
- > Tax hikes suck cash flow out of private sector
- Expenditure cut crimp cash flow into hh, firms
- Domestic private income shortfalls lead to contraction of profits, debt distress, signaling production cutbacks
- > Tax revenues come up short
- Automatic stabilizers raise expenditures
- Budget deficit misses required target levels
- Larger cuts are demanded, further undermining private cash flows
- Wash, rinse, repeat
- Only way out is if domestic private income deflation turns current account balance up enough before private debt distress drags the economy into Fisher vortex ("internal devaluation" route with a knife edge)

The Paradox of Public Thrift: Ireland

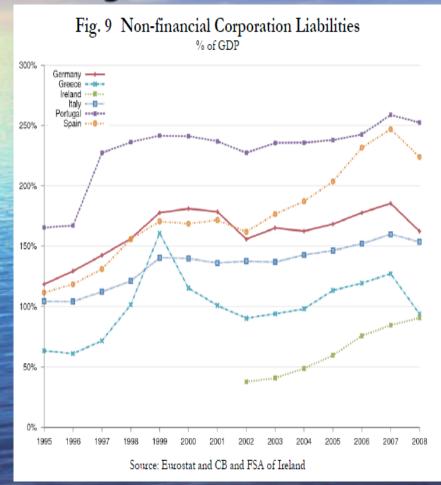


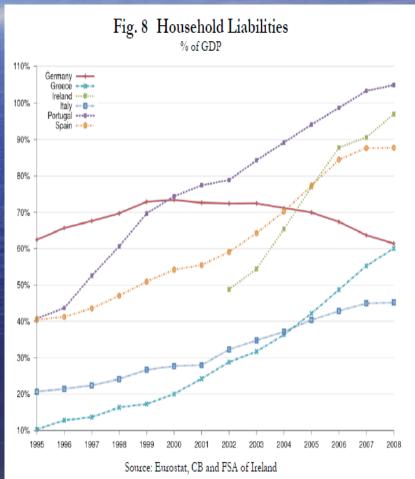
BUDGET 2010			
(C Million)	2009 Projected Outturn	2010 Budget Target	% Change
Current Spending	45,520	47,123	+3.5
of which (i) Central Fund (ii)Supply Services	5,152 40,368	6,932 40,192	+34.5 -0.4
Current Revenue	33,404	33,405	0.0
(i) Tax (ii) Non-Tax	32,570 834	31,050 2,355	-4.7 182.4
Current Budget Deficit	12,116	13,718	
Capital Borrowing	13,145	5,062	
Exchequer Deficit	25,260	18,780	
Gen. Gov. Deficit (% of GDP)	19,260 (11.7%)	18,720 (11.6%)	

Contagion Vector 1: Trade Current Account Balances in the Peripheral Eurozone Nations



Contagion Vector 2: Private Debt Private Sector Debt/Income Ratios are High and Rising in the eurozone

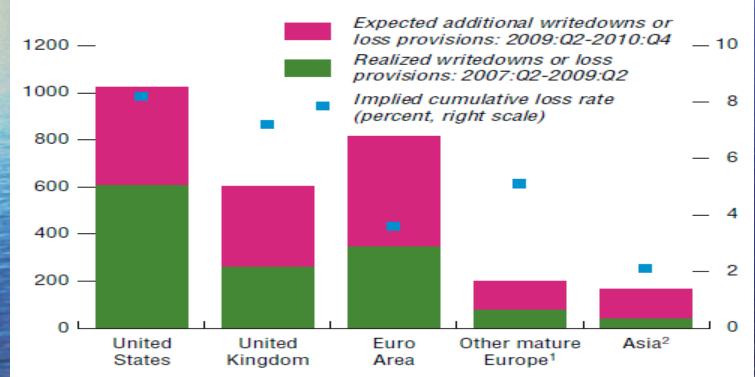




IMF Estimates of Banking Sector Losses

Figure 1.9. Realized and Expected Writedowns or Loss Provisions for Banks by Region

(In billions of U.S. dollars unless otherwise shown)



Source: IMF staff estimates.

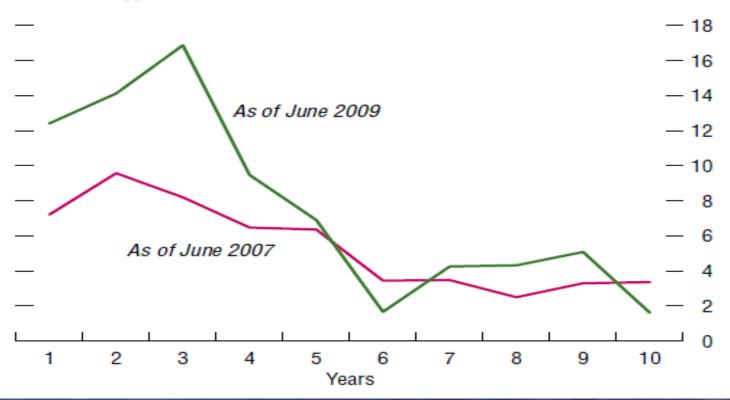
¹Includes Denmark, Iceland, Norway, Sweden, and Switzerland.

²Includes Australia, Hong Kong SAR, Japan, New Zealand, and Singapore.

Distribution of Maturing Bank Debt



(Percent of debt maturing over 12-month periods against initial outstanding)



Possible Routes Forward

- Public debt restructuring (or default)
- Maxi-depreciation of the euro
- Sustainable current account surplus recycling through the European Investment Bank
- Repudiation and revocation of the (In)Stability and (Lack of) Growth Pact
- Go for growth fiscal stance: ELR + Public/Private Investment to return to FE growth path
- ECB allowed to purchase public debt up to some inflation ceiling constraint
- Argentina post 2001 is a live experiment

Fiscal Alternatives: Triple Play Approach to a New FE Growth Path

- Market fails in long run investment decision making
- Post bubble shifts in domestic nominal private saving
- Chronic trade deficits
- Return to the original Keynes: public investment as a long run stabilizer/driver of private growth
- Seed and pursue long run investment goals with large positive externalities via public/private partnerships and procurement policies
 - Energy Independence
 - Water Infrastructure
 - Clean Tech
 - Education

Conclusions

- Any serious assessment of financial stability needs an internally consistent stock/flow analytical approach
- We cannot coherently examine fiscal policy options without analyzing their implications for the financial balances of other sectors
- Imposing a fixed fiscal deficit to GDP floor makes it harder to achieve or sustain private sector net saving objectives, especially in post bubble periods
- If the current account is in deficit, and exchange rate policy is constrained, the private sector is more likely to be placed on a route to financial fragility and instability

Conclusions

- The domestic private and government sectors cannot deleverage at the same time without a large, sustained increase in the trade (or current account) balance
- By constraining the fiscal policy and nominal exchange rate options available to Eurozone nations, EMU & SGP together raise the odds of financial fragility rupturing domestic private sectors if trade surplus is not achieved
- Since European banks are more highly leveraged, the pursuit of fiscal sustainability may prove unsustainable if it leads to more private debt distress and bank losses

The Death of the Dismal Science, The Launch of a Life Affirming Economics



"For if we consistently act on the optimistic hypothesis, this hypothesis will tend to be realized; whilst by acting on the pessimistic hypothesis we can keep ourselves for ever in the pit of want."

J. M. Keynes, EIP, Nov. 8, 1931







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