

“Some Lessons from Six Years of
Practical Inflation Targeting”
by Lars E.O. Svensson

Discussion by Eric M. Leeper

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Sveriges Riksbank

Lars is Unique

- ▶ As a founding father of inflation targeting, Lars. . .
 - ▶ developed the formal framework
 - ▶ made the framework's implications applicable
 - ▶ communicated the framework to academics, policy makers & the public
- ▶ As a policy maker himself, Lars. . .
 - ▶ grappled with gaps between the theory & the practice
 - ▶ worked to improve central bank policy analysis
 - ▶ innovated in the Board room
- ▶ You don't have to agree with Lars to acknowledge his fundamental contributions
 - ▶ it takes courage to apply academic research to actual policy making

Lars's Paper

- ▶ Covers a lot of ground
 - ▶ lays out several examples of how Lars thinks about actual policy decisions
 - ▶ contrasts his views with Riksbank decisions & processes

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 - ▶ lays out several examples of how Lars thinks about actual policy decisions
 - ▶ contrasts his views with Riksbank decisions & processes
- ▶ I will step away from the fray
 - ▶ focus on one issue that Lars's paper discusses at length
 - ▶ interactions between monetary policy & financial stability

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 - ▶ but it is sustainable relative to the present value of my income
- ▶ Because my capacity to borrow depends on the *expected present value*
 - ▶ a higher (lower) real-interest-rate path reduces (raises) the PV & my borrowing capacity
 - ▶ expectations could be wrong: my rich uncle might disinherit me
 - ▶ random stuff can change how much borrowing is sustainable

The Smart Swedes

- ▶ IT advocates often silent about fiscal pre-conditions
- ▶ Suspect there are two reasons
 - ▶ strange taboo against central bankers saying anything substantive about fiscal policy
 - ▶ pre-conditions seem to be fairly stringent & giving voice to them may undermine confidence in IT

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- ▶ Sweden and a few other ITers understood this
 - ▶ adopted fiscal reforms before adopting IT
 - ▶ reforms moved Sweden farther from its **fiscal limit**
- ▶ Every economy has a **fiscal limit**
 - ▶ point at which surpluses no longer adjust to stabilize government debt
 - ▶ economic or political limits: Laffer curves, minimum size of government, electorate's tolerance for taxes

Fiscal Limit

- ▶ Delivers maximum expected present value of future primary surpluses (“cash flows”)
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- ▶ Delivers maximum expected present value of future primary surpluses (“cash flows”)
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- ▶ Fiscal limit
 1. uncertain: a probability distribution—not a point
 2. forward-looking: hinges on expected policies & their credibility
 3. depends on: private & government behavior; shocks hitting economy
 4. country- & time-specific: no one-size-fits-all fiscal limit

Swedish Fiscal Reforms

- ▶ Fiscal reforms in early 1990s produced Swedish Fiscal Framework
 - ▶ a ceiling on total expenditures
 - ▶ a budget surplus target of 1 percent of GDP over the business cycle at the general government level
 - ▶ a balanced budget at the local government level
 - ▶ spending less countercyclical

| | Pre-Crisis | Post-Crisis |
|---------------------------------------|------------|-------------|
| Spending-GDP ratio | 0.276 | 0.267 |
| Transfers-GDP ratio | 0.22 | 0.19 |
| Response of spending to productivity | -0.183 | 0.196 |
| Response of transfers to productivity | -1.70 | -1.066 |

Swedish Fiscal Reforms

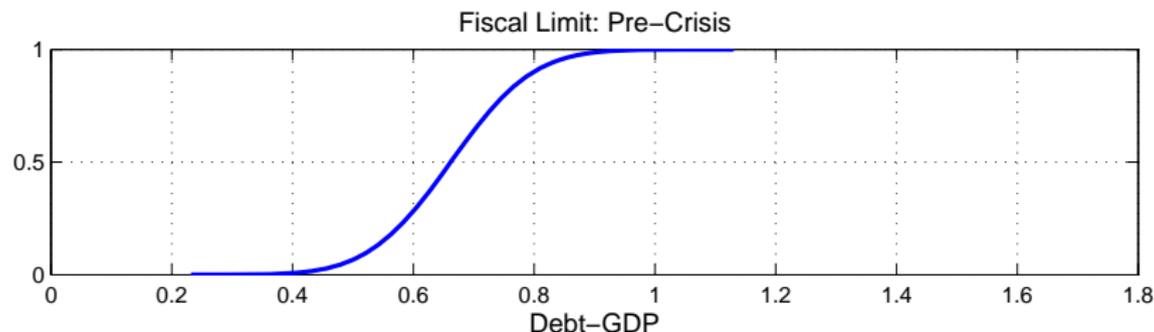
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- ▶ Unconditional fiscal limit distribution
 - ▶ peak of Laffer curve, minimum levels of government spending

$$\mathcal{B}^* : E \left(\sum_{T=t+1}^{\infty} q_{t,T} (T_T^{\max} - G_T^{\min} - Z_T^{\min}) \right)$$

Swedish Fiscal Limit

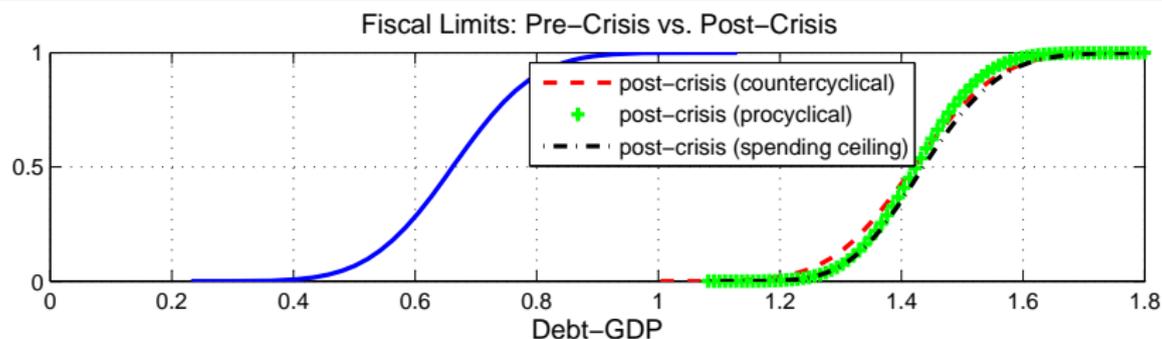


Probability of hitting the limit as function of debt-GDP ratio

At the limit, fiscal policy no longer stabilizes debt

- ▶ Before fiscal reforms, even moderate debt levels implied substantial probability of hitting limit
- ▶ At the fiscal limit, have fiscal dominance
 - ▶ monetary policy cannot successfully target inflation
 - ▶ or sovereign debt default

Swedish Fiscal Limit



Probability of hitting the limit as function of debt-GDP ratio

At the limit, fiscal policy no longer stabilizes debt

- ▶ Permanent reforms shift distribution to right, give fiscal policy more room to stabilize debt
- ▶ Frees Riksbank from worries about effects of MP on fiscal sustainability
- ▶ MP's ability to control inflation lies on a continuum
 - ▶ far from limit, operates as in IT literature
 - ▶ as approach limit, MP's effects change

Conditional Fiscal Limit

- ▶ For routine policy analysis, want to know how close economy is to fiscal limit *conditional on current state*
 - ▶ depends on all the shocks hitting economy today
- ▶ More generally, anything that affects
 1. path of “maximum surpluses”
 2. path of real discount rates
 - ▶ can shift the fiscal limit distribution
- ▶ Riskiness of sovereign debt—distance from fiscal limit—can change with no change in current debt

Inflation Targeting & Financial Stability

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- ▶ IT advocates now discussing financial stability
- ▶ Many central bankers worry explicitly about implications of MP for financial stability (and vice versa)
- ▶ Lars argues that financial stability is best left to specialized authority
 - ▶ changes in policy rates have negligible effects on household debt accumulation
 - ▶ policy interest rate not the best instrument for financial stability
- ▶ Hard to address these issues without a framework that integrates monetary-fiscal-financial policies

Extending the Fiscal Limit Idea

- ▶ Consider household borrowing
 - ▶ only asset is future income—labor earnings & transfers, net of taxes & consumption
 - ▶ household solvency condition

$$b_t = E_t \sum_{T=t+1}^{\infty} q_{t,T}^b (Y_T - T_T + Z_T - C_T)$$

q^b : borrowers' real discount factor

- ▶ Use this to generate households' borrowing limit distribution

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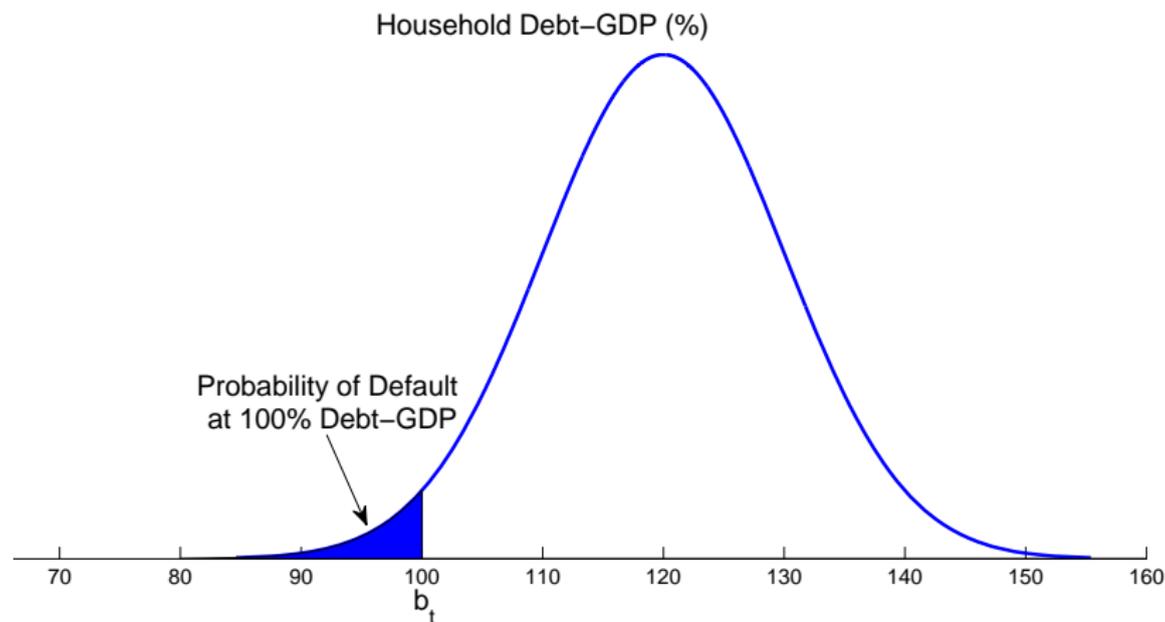
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- ▶ Use this to generate households' borrowing limit distribution
- ▶ Want to think about monetary-fiscal-financial interactions & tail risk
 - ▶ MP can affect q^b , Y & C (over some horizons)
 - ▶ FP can affect all the variables
 - ▶ **financial stability necessarily brings fiscal policy into analysis**

Hypothetical Borrowing Limit Distribution

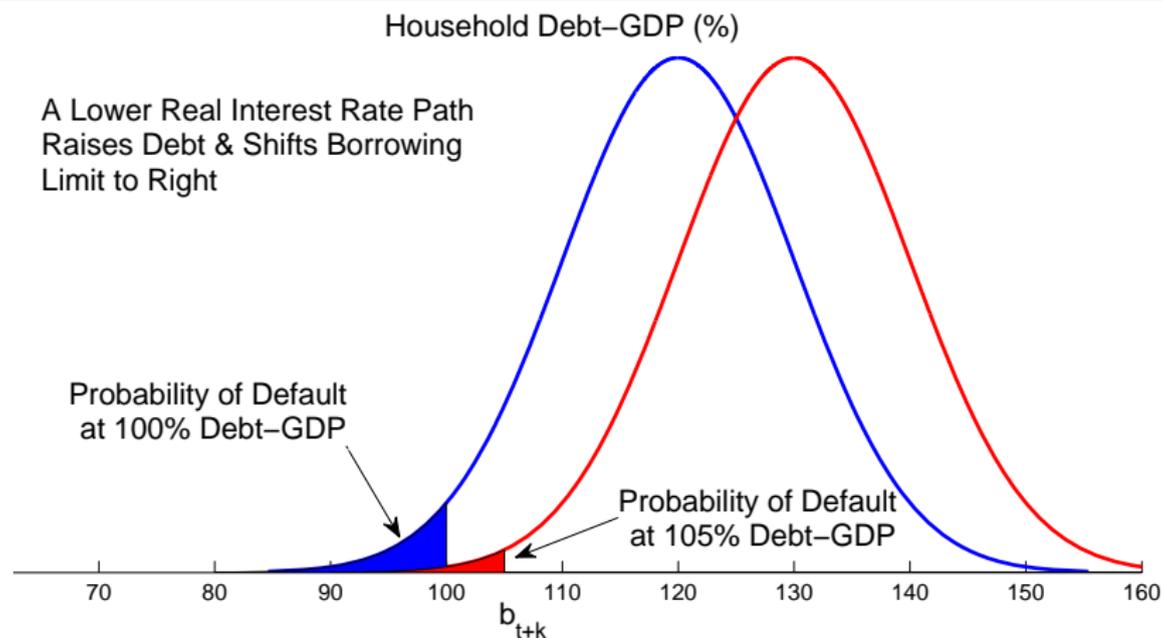


- ▶ It is debt *relative* to limit distribution that matters
- ▶ Even if policy has small effects on current debt. . .
- ▶ It can have large effects on default probability through borrowing limit distribution

State Dependence of Borrowing Limit

- ▶ Shocks & policies affect location & shape of distribution
- ▶ Example: looser monetary policy
 - ▶ lowers real interest rates (over some horizon)
 - ▶ raises q^b
 - ▶ raises real income & consumption (over some horizon)
 - ▶ both tend to shift borrowing limit up (to right)
 - ▶ lower default probability for any level of borrowing
 - ▶ might also raise level of borrowing
 - ▶ monetary policy produces opposing effects on financial stability

Shift in Borrowing Limit Distribution



- ▶ Monetary policy affects more than just debt accumulation
- ▶ It can also shift borrowing limit distribution
- ▶ Net effect is a quantitative matter

How Does Fiscal Policy Fit In?

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- ▶ Fiscal consolidations that shift *out* the fiscal limit
- ▶ May shift *in* the borrowing limit, triggering financial instability
- ▶ Also *indirect* interactions between fiscal & financial stability

A Big Advantage of this Approach

- ▶ Do not need to specify policy regime *a priori*
- ▶ Policy regime emerges endogenously
 - ▶ at fiscal limit, have “fiscal dominance”
 - ▶ at borrowing limit, have “financial dominance”
 - ▶ far from limits, have “monetary dominance”
 - ▶ elsewhere have intermediate regimes, which are not well understood
- ▶ Allows ability of MP to control inflation to vary continuously
 - ▶ nature of MP's effects vary with state of economy

Much To Do

- ▶ This description too stylized to be useful for policy
- ▶ Need rich specification of household wealth—brings in many asset prices (e.g., house prices)
- ▶ Need to broaden notion of “financial stability”
- ▶ Need to bring in lender-of-last-resort & central bank’s balance sheet position
 - ▶ enriches interactions among policies
- ▶ Need to carefully model consequences of default
 - ▶ ties up & wastes resources
 - ▶ foregone investment & employment opportunities
 - ▶ can have substantial effects on output
- ▶ Need to obtain empirical estimates of limit distributions

Lars's Paper

- ▶ Policy discussions of monetary policy & financial stability take place without a common framework
- ▶ Lars emphasizes effects of policy rate on household debt accumulation
- ▶ Borrowing limit framework says this is only part of the picture
- ▶ And it may be a relatively small part, given potentially large effects of policy on borrowing limit

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- ▶ Progress in this area requires a conceptual framework that captures
 - ▶ general equilibrium interactions among monetary policy, fiscal policy & financial policy
 - ▶ prices risk correctly
 - ▶ generates predictions of how policy actions affect risk