

Discussion of Dynan, Elmendorf and Sichel 'Financial Innovation and the Great Moderation: What do Household Data Say'

Paul Willen (with help from Kris Gerardi)

November 16, 2006

Introduction

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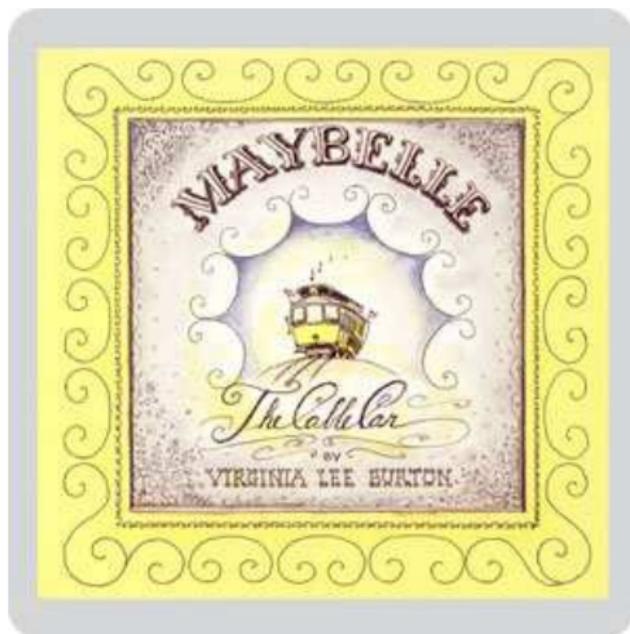
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- Third, the conference explained my absence at...

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- ◆ Face painting, art activities and fun entertainment

Overview

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- Practically: I could re-use slides from other presentations

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- I will devote a little time to 1 and more to 2.

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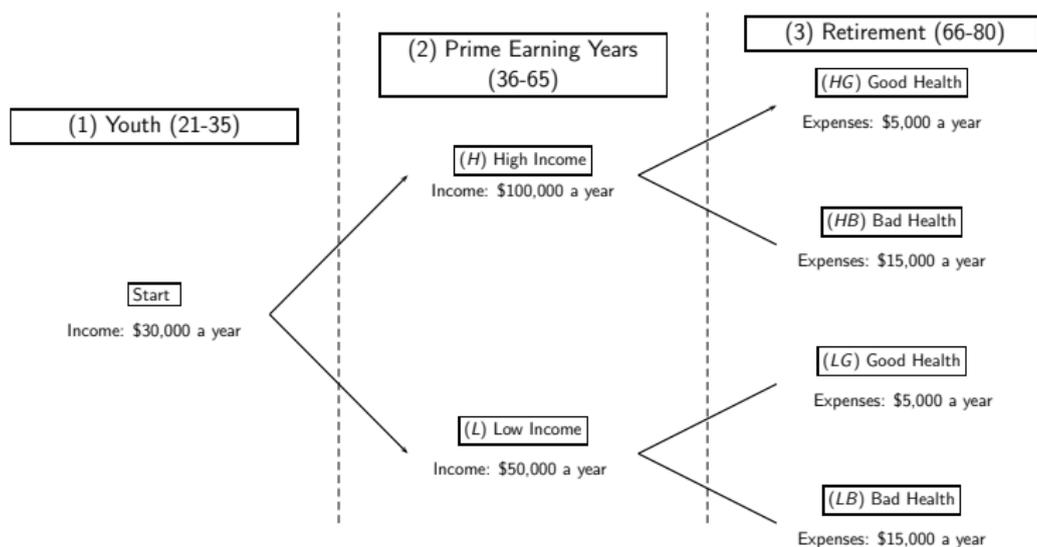
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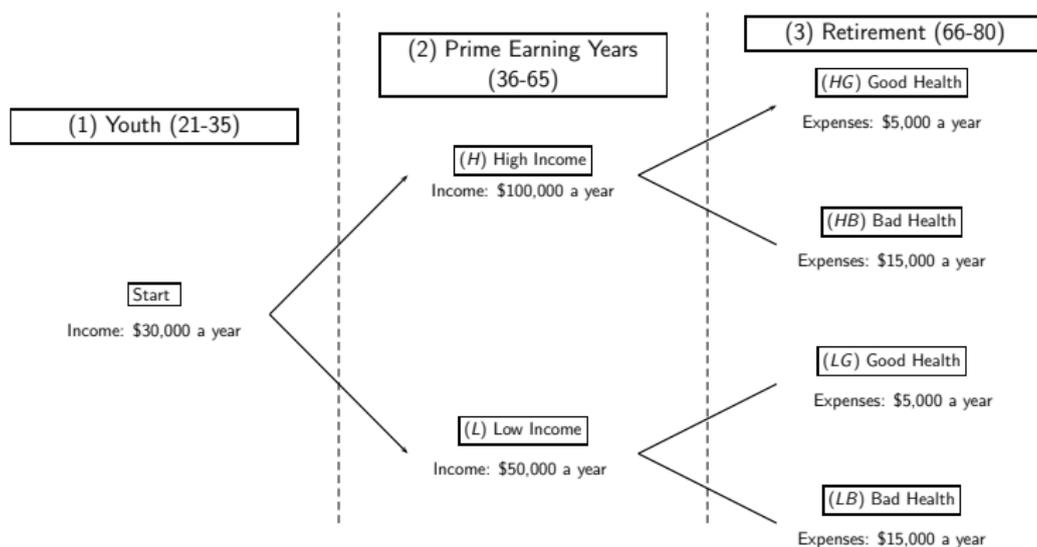
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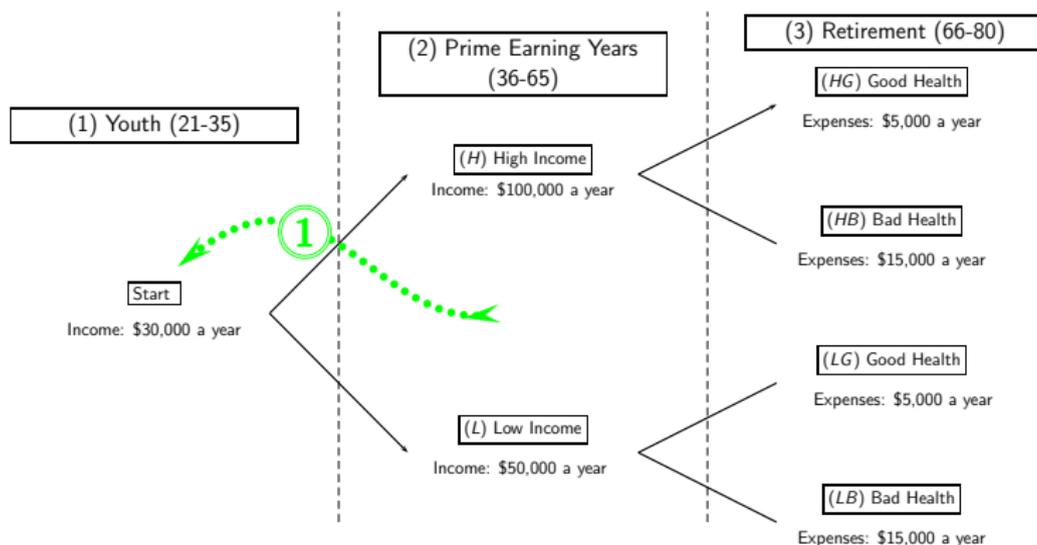
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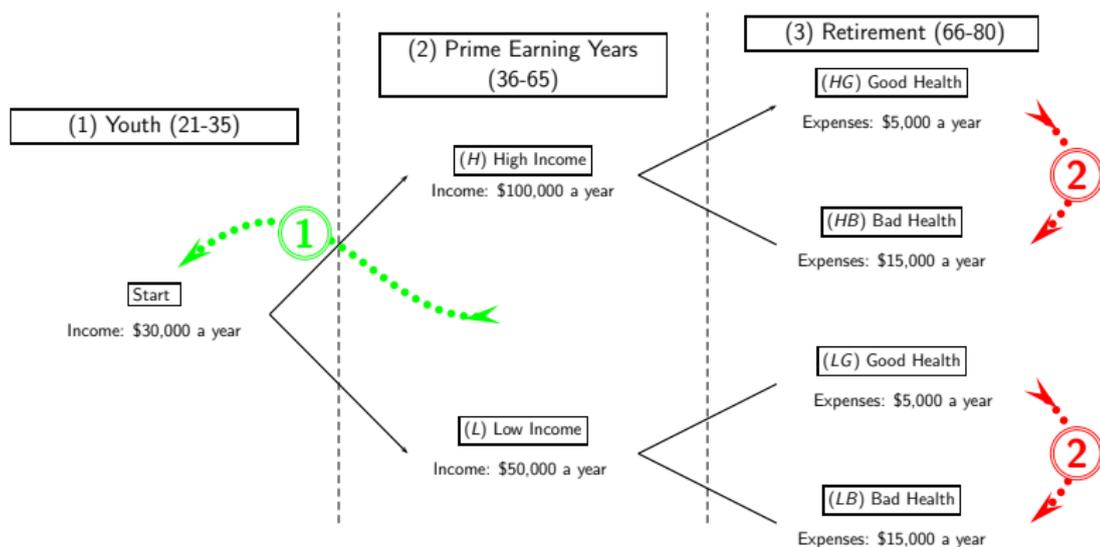




- Financial assets allow us to move consumption around

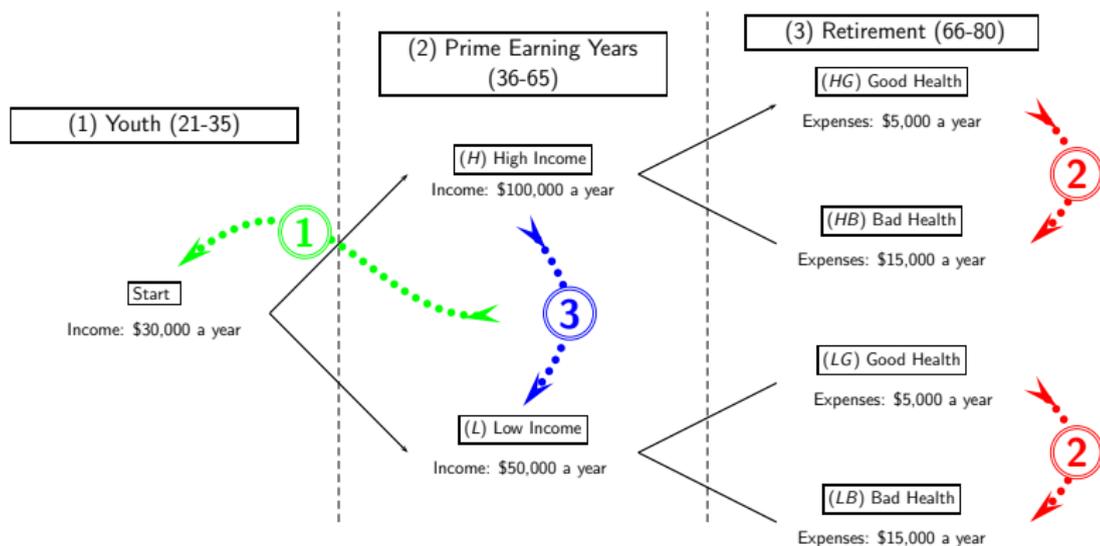


- Financial assets allow us to move consumption around
 - Borrowing



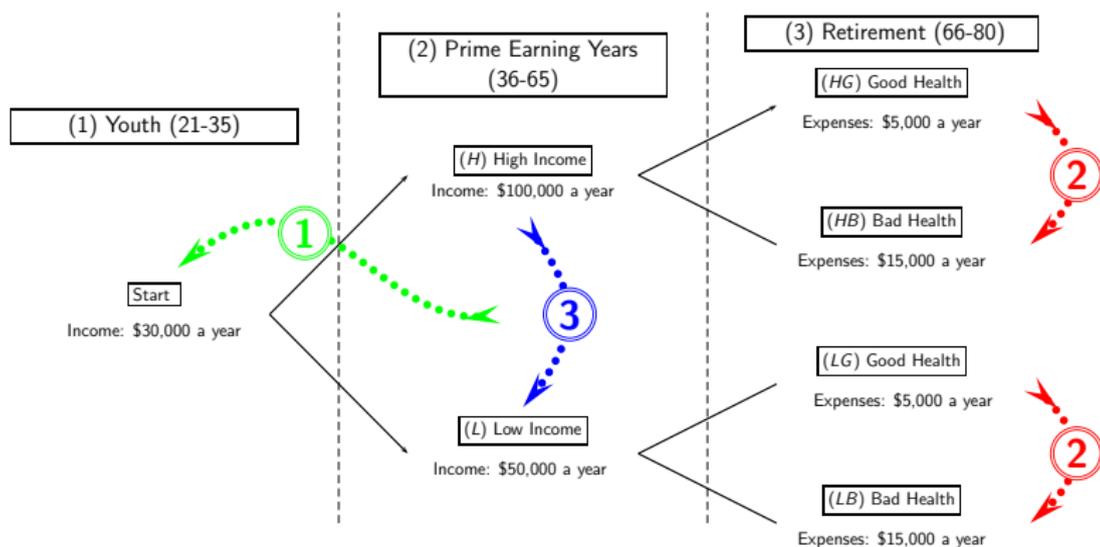
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 - Small community risks

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 - 3 Splitting the sample

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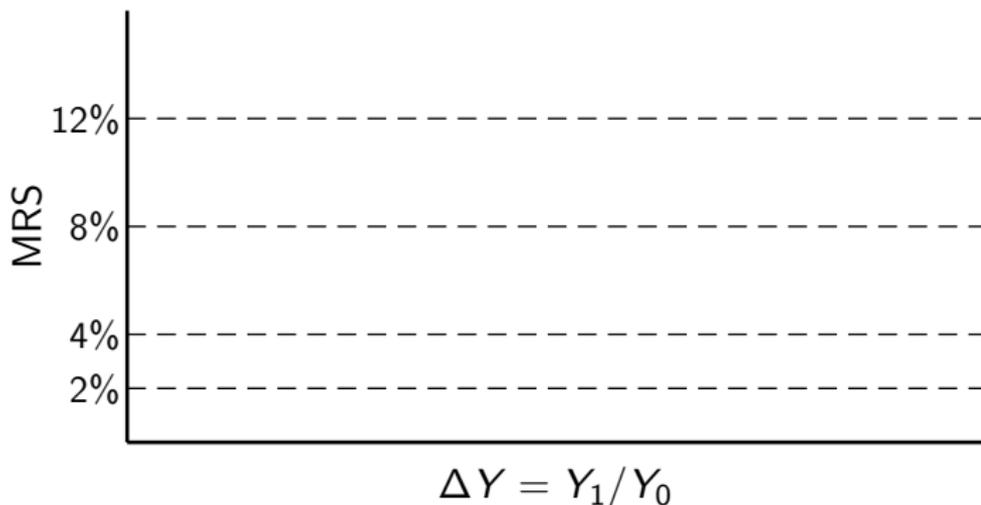
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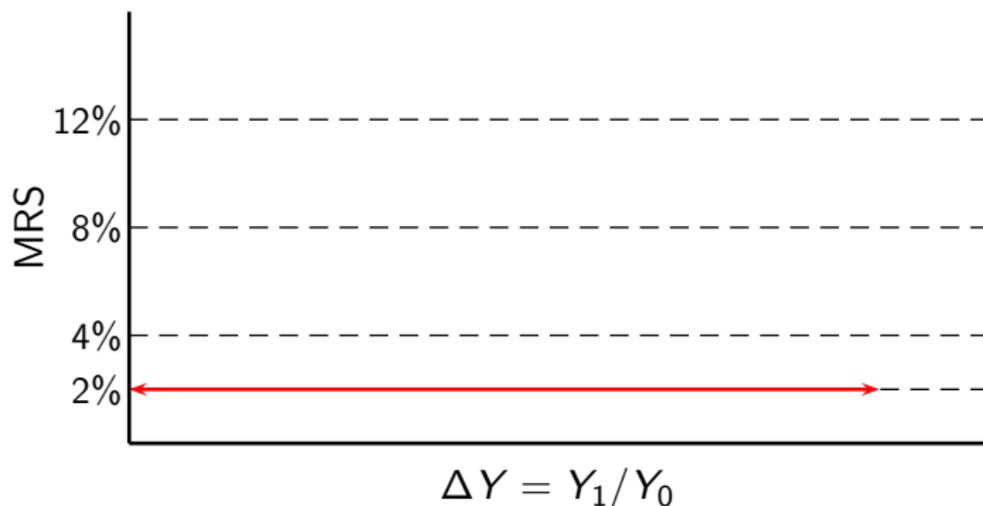
Understanding the $\Delta C - \Delta Y$ relationship

"The portfolio stairs" (Kubler and Willen (2006))



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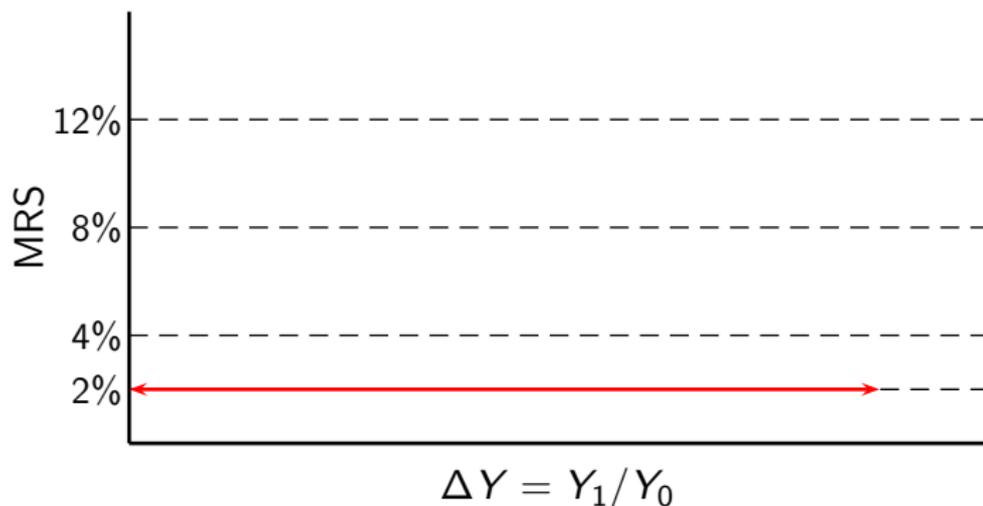
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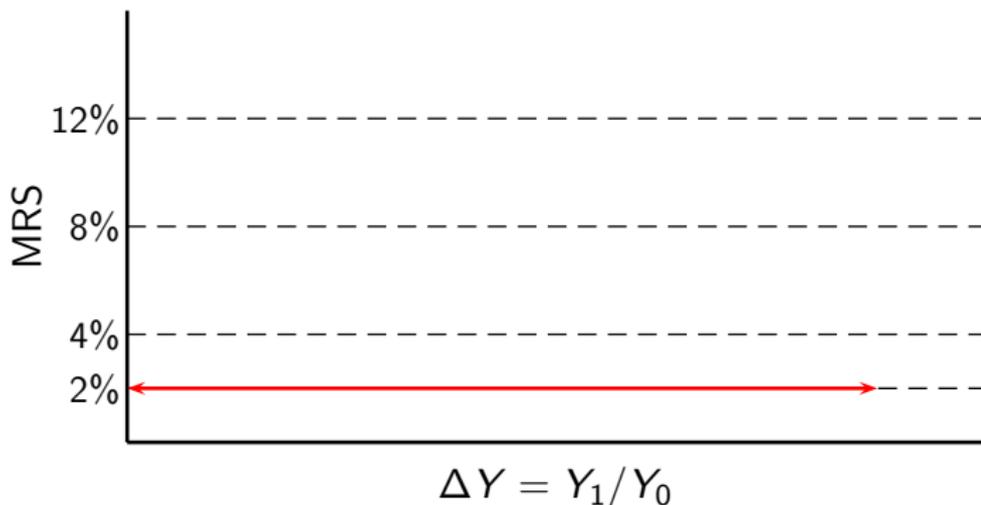
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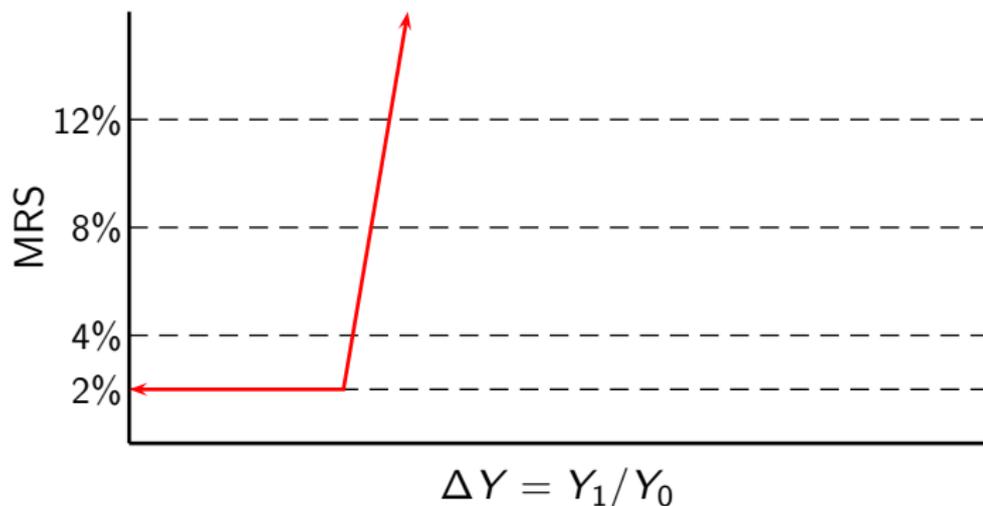
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- With no credit market imperfections
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- MRS and thus consumption growth always the same.

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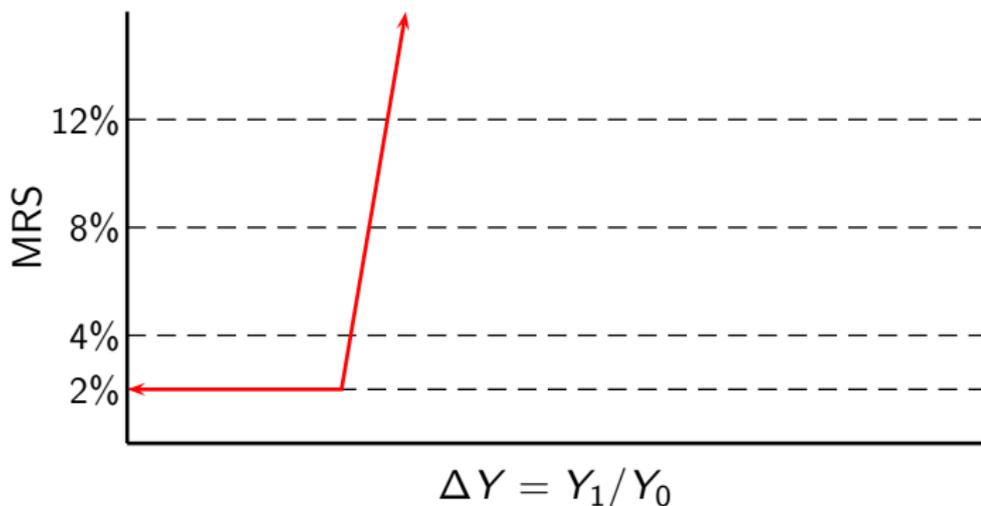
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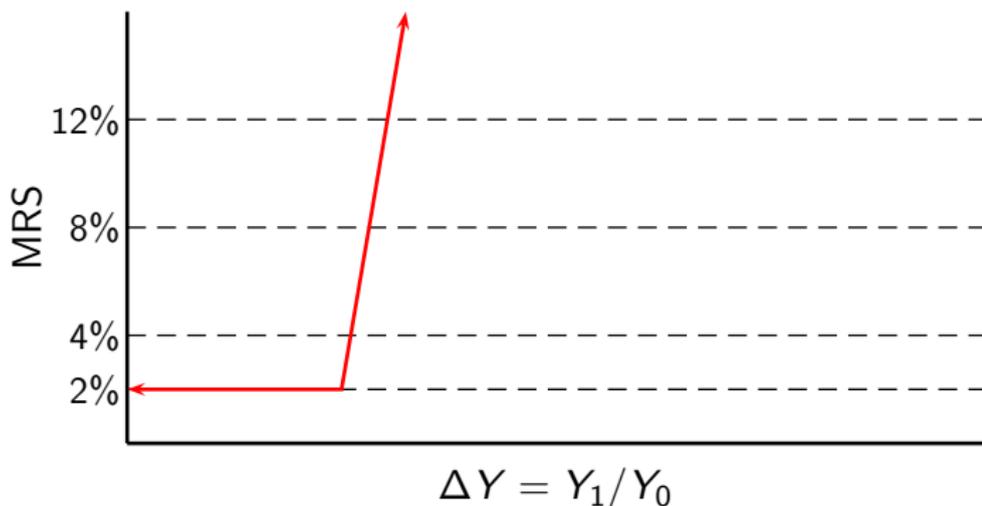
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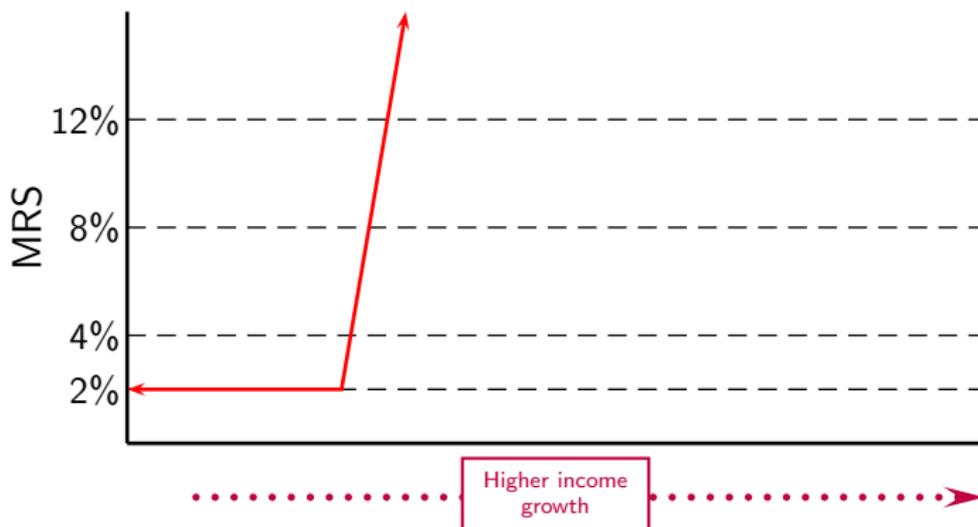
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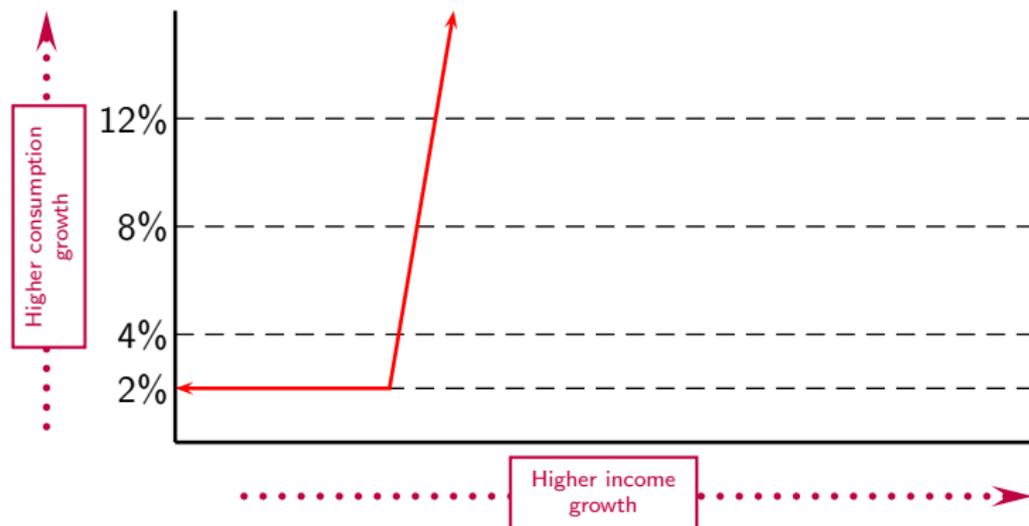
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But people can borrow:

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- Mortgages.



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Nov-06



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2x30	11.00%	11.10%	11.75%
1x60	11.05%	11.25%	12.25%
2x60	11.35%	11.40%	
1x90	11.50%	11.75%	
1x120	11.50%	12.00%	
Bk Buy Out	12.00%	12.10%	
1x 150	12.25%		
NOD	12.35%		

Streamltd Mtg Rates	Refinance Cash Out			75%*
	60%	65%	70%	
1x30	10.75%	11.00%	11.25%	11.75%
2x30	11.00%	11.25%	11.40%	12.25%
1x60	11.30%	11.50%	11.75%	
2x60	11.40%	11.75%	11.80%	
1x90	11.75%	11.85%	12.00%	
1x120	11.90%	12.00%		
Bk Buy Out	12.10%	12.25%		
1x 150	12.35%			
NOD	12.45%			

Purchase Full Doc	Streamltd
75%*	12.00%
70%	11.75%
65%	11.50%
11.75%	11.75%

Quick Purchase Matrix
Max Gift Equity 15%
Max CLTV 80%
Max Seller Contribution 5%
Max DTI 50%
DEBS Not Required PAID @ COE

Adjustment Type	CREDIT SCORE BONUS 500+ = .50%		
	Characteristics	Rate	Fee
Occupancy	Non-Owner	1.00%	1.00%
Property	Condo (MAX 65% LTV)	0.50%	1.50%
	5+ Units	0.50%	1.50%
Loan Amount	Bk in the last 12 months	1.00%	0.50%
	No Credit History	1.00%	2.00%
	Rental Properties	1.00%	1.00%
	SUB 500 Discount Matrix		
	100,000 to 250,000	0.50%	1.25%
	250,000 to 500,000	0.00%	1.75%
	500,000 to 400,000	0.25%	2.00%
	450,000 to 1,500,000	0.50%	2.00%

Program Style	2 TO 6 ADVANTAGE PAYMENTS OFFERED		
	Characteristics	Index	Margin
2 Yr Fixed	Interest Only/2/28 arm		7.00%
Prepay	2 YEAR @ 0.5% of 6 months		

Limits		No Minimum Credit Score Required	
Min Loan amount	100,000	First Lender Only	
No Limit to Cash Out		No Make/Manufactured	
24 month Bk statements Full Doc		Max DTI 60%	
Rental Properties Max LTV 65%		12 month mtg history req	
COE Active & Non Active Date 24H		Max Spite to Broker	
75% LTV 100% Equity Req. Max 400 Club		SUB 500 Fee \$1,500	
Covered Loans: \$350K Max Fee .4% Max .6% @ 6% above 30Y 15.0%			

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Tony Martin	408-439-1259
Christy Galloway	818-755-6222
Chris Rowland	818-698-3339
All's Positions Available	

Current Mtg Rate	Delinquent at Close		
	Days	Rate	Fee
1x30	0 to 30 days	0.00%	0.00%
30 days	31 to 60 days	0.25%	0.25%
	61 to 90 days	0.50%	0.50%
Current	91 to 120 days	1.00%	1.00%
	Greater than 120	1.50%	1.50%

Buy Out	Prepay	NO SECTION 32 LOANS	
		Fee	Rate
1 Yr	None	Buy Down	Reduce
2 Yr	5pt	1.00%	1.25%

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- Credit Cards

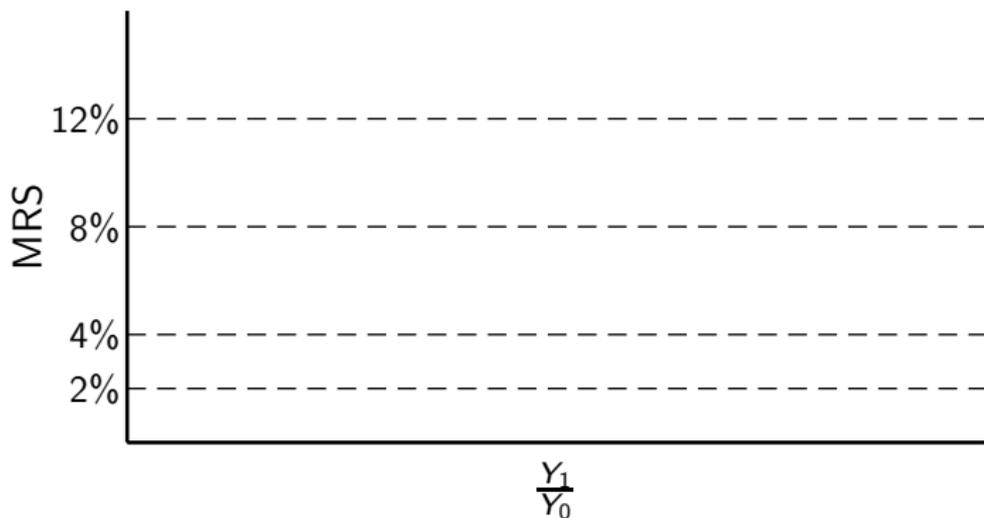


- Loan sharks

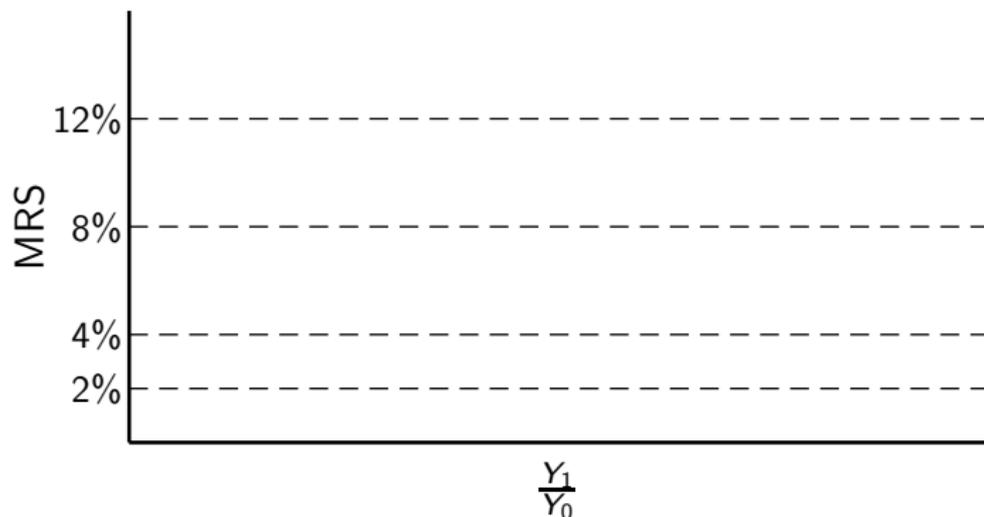
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More realistic credit markets

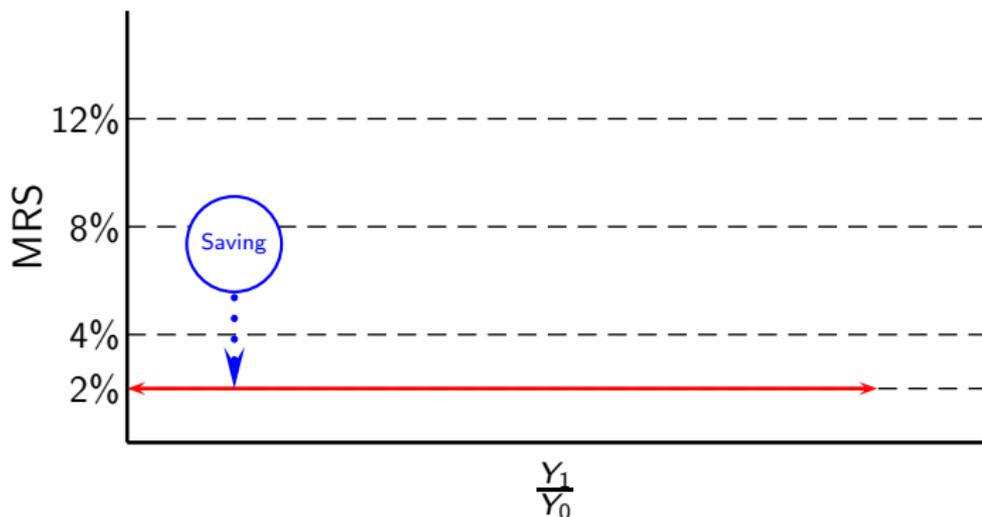


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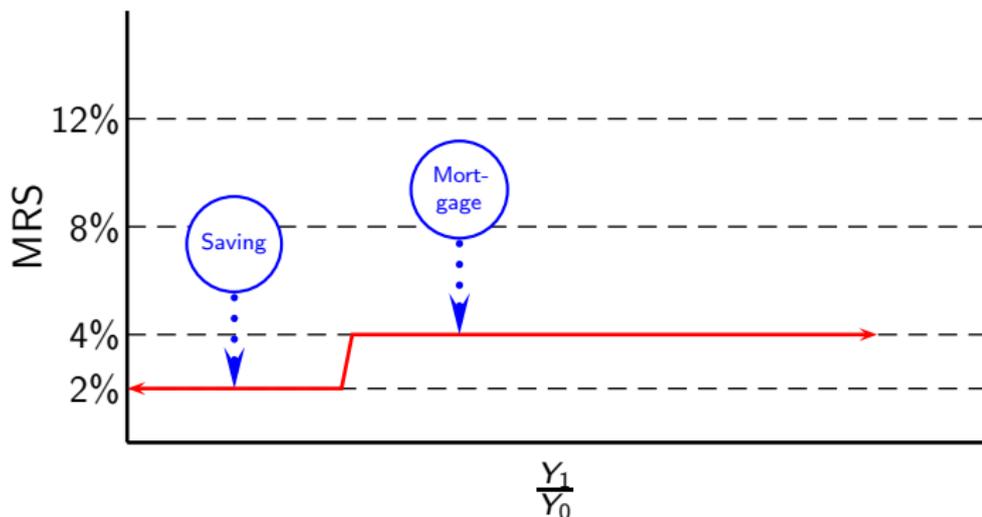
- The portfolio stairs

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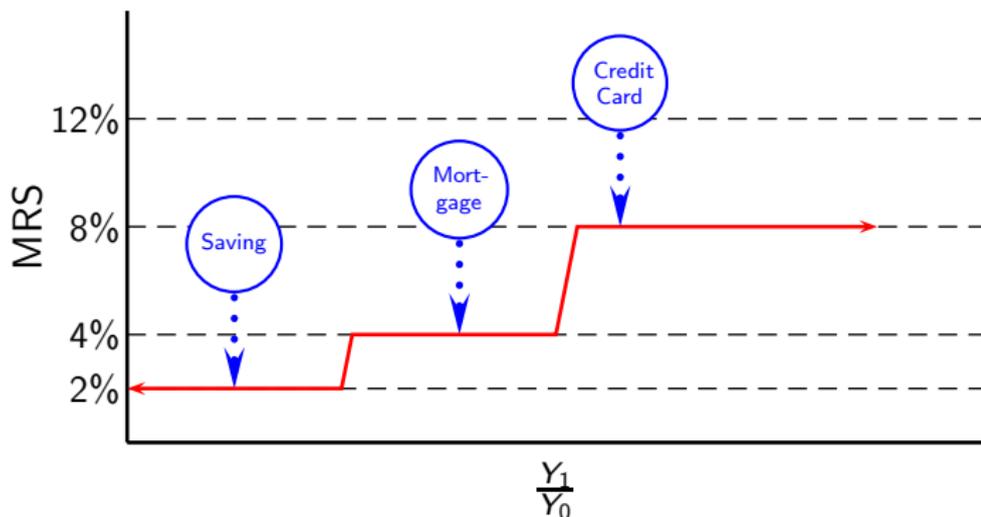
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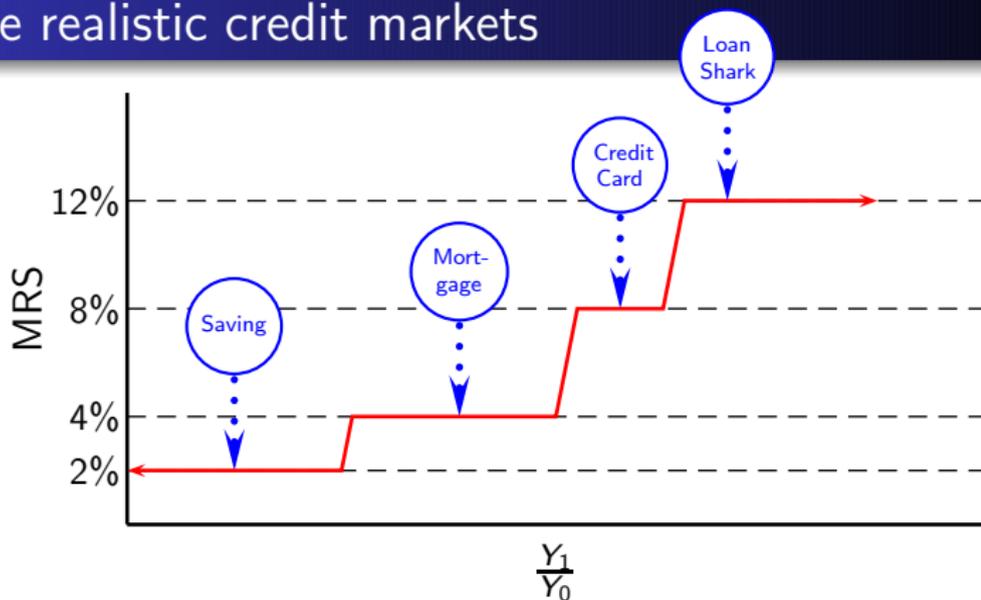
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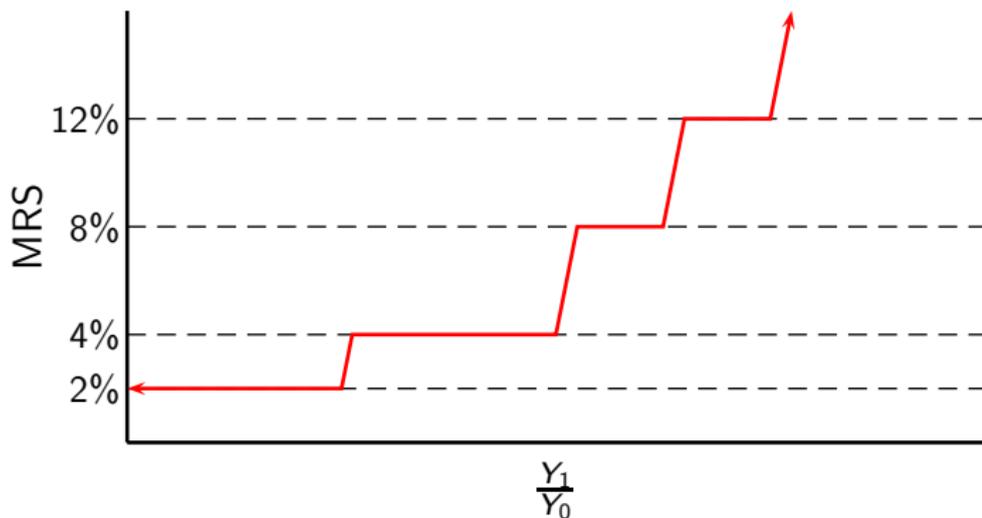
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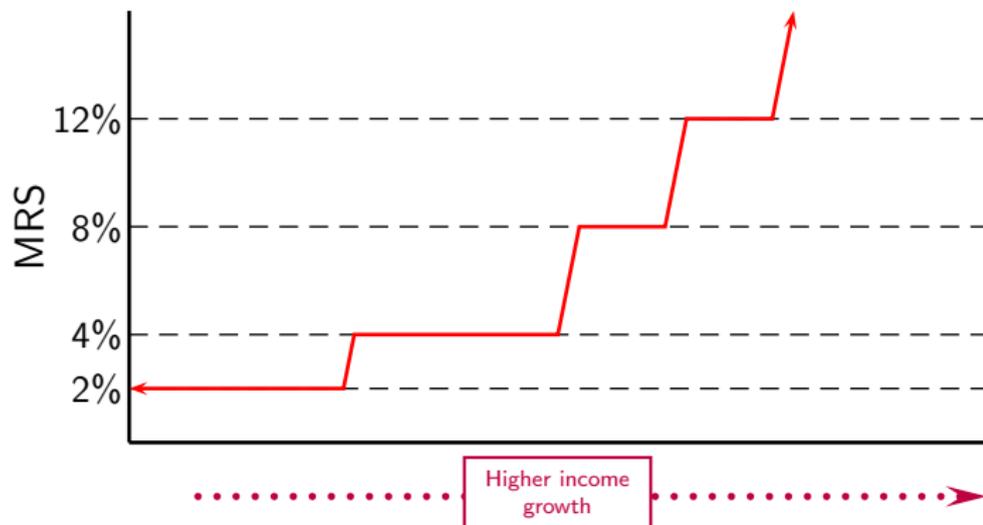


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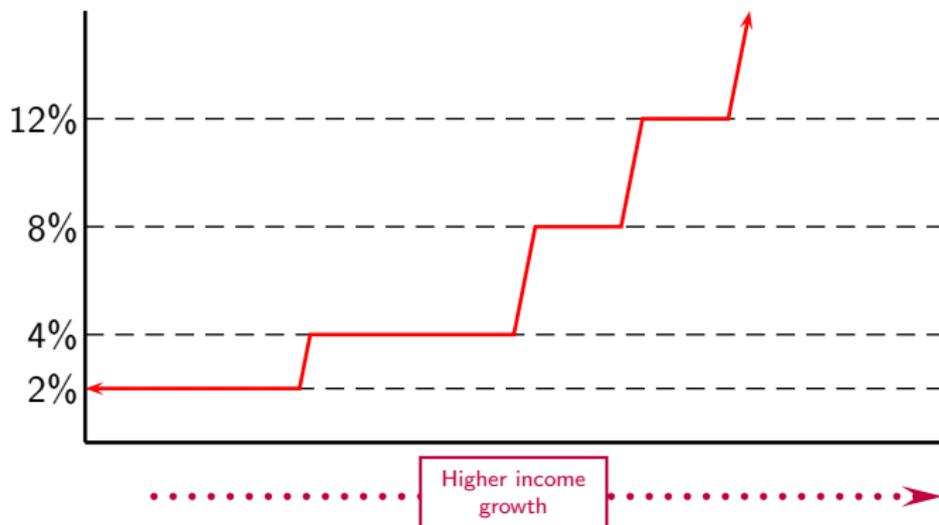


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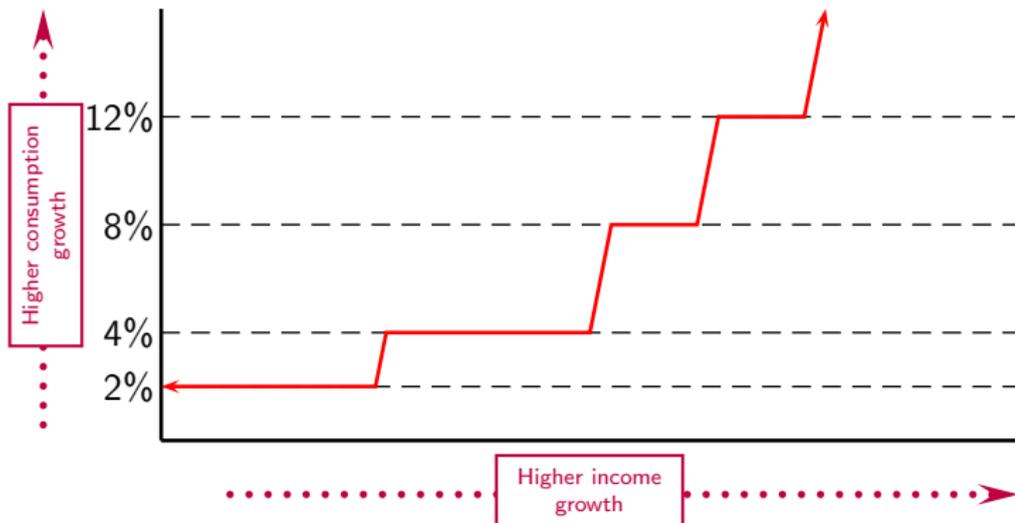
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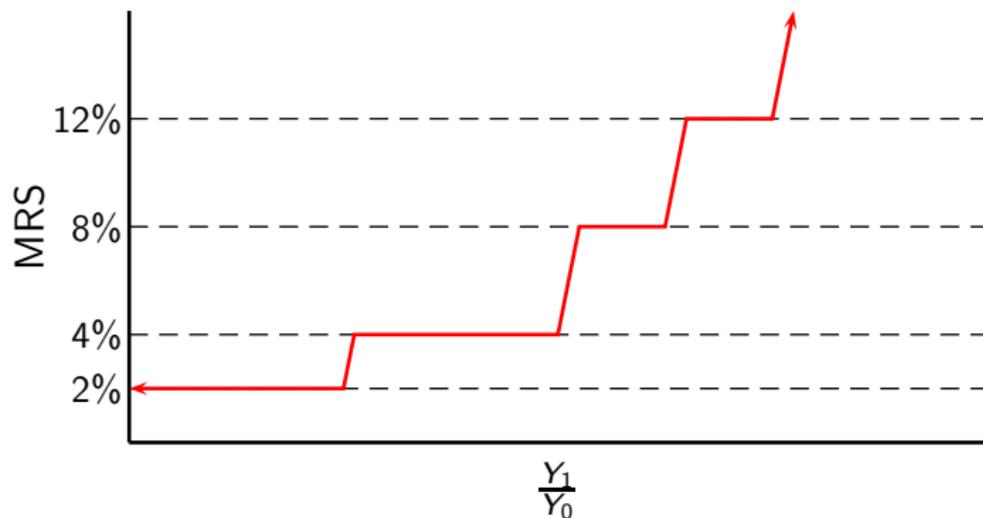
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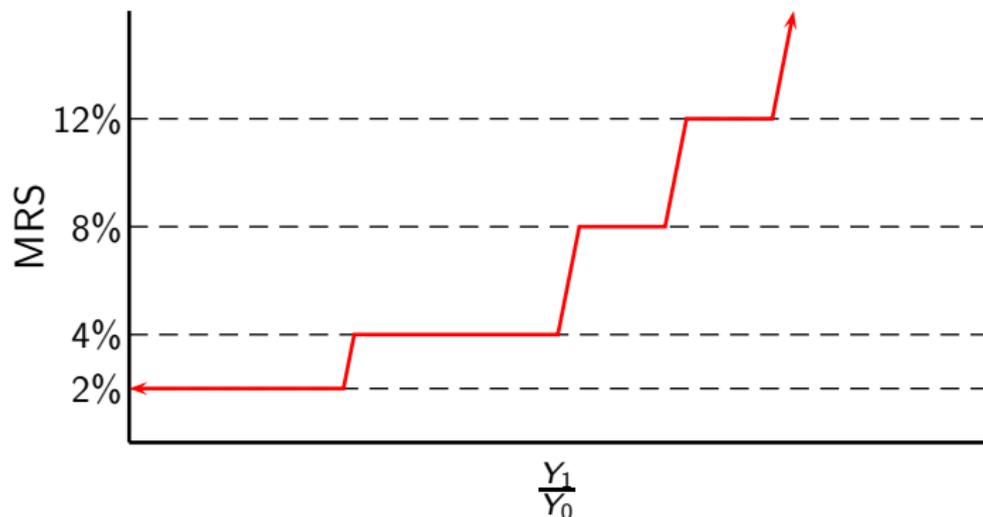


- Higher income growth leads to
- a higher MRS
- which means higher consumption growth

Financial Innovation

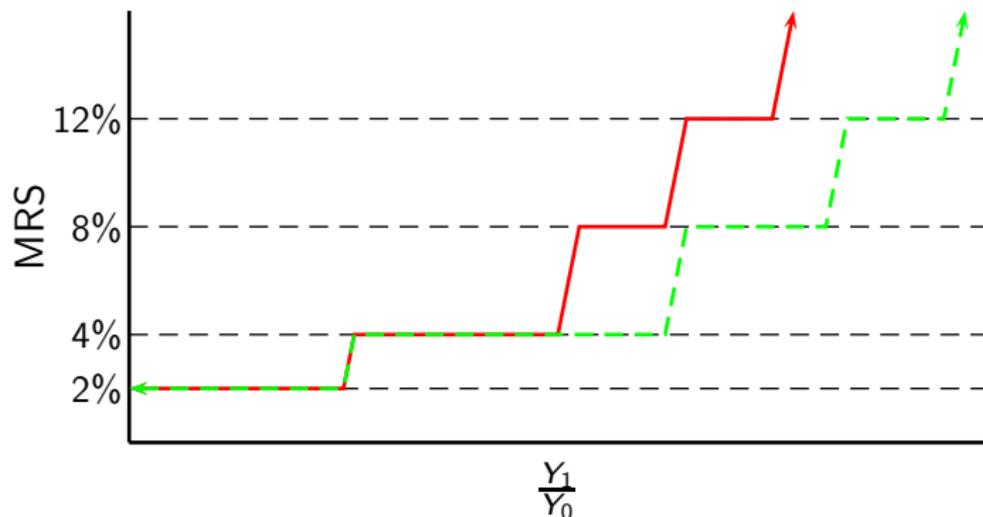


Financial Innovation



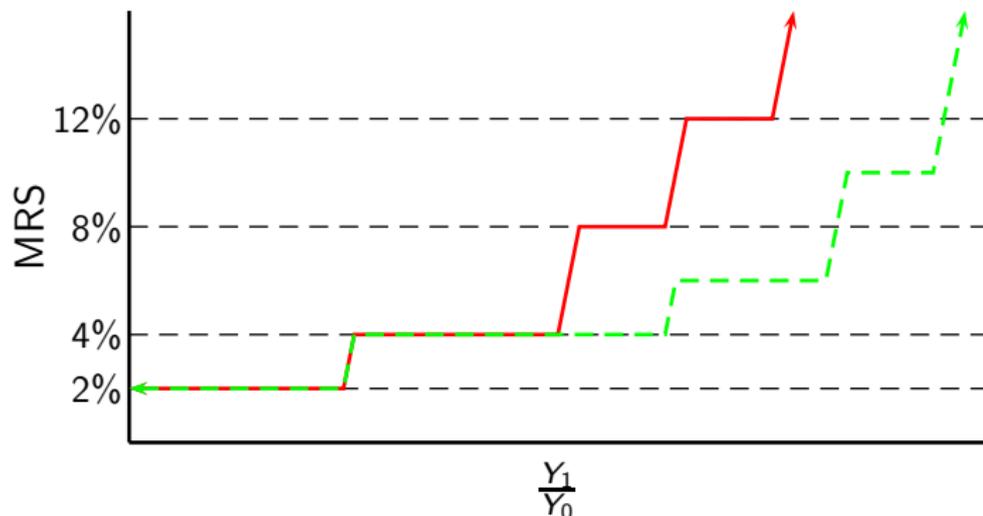
- Financial innovation: Lenders improve the terms

Financial Innovation



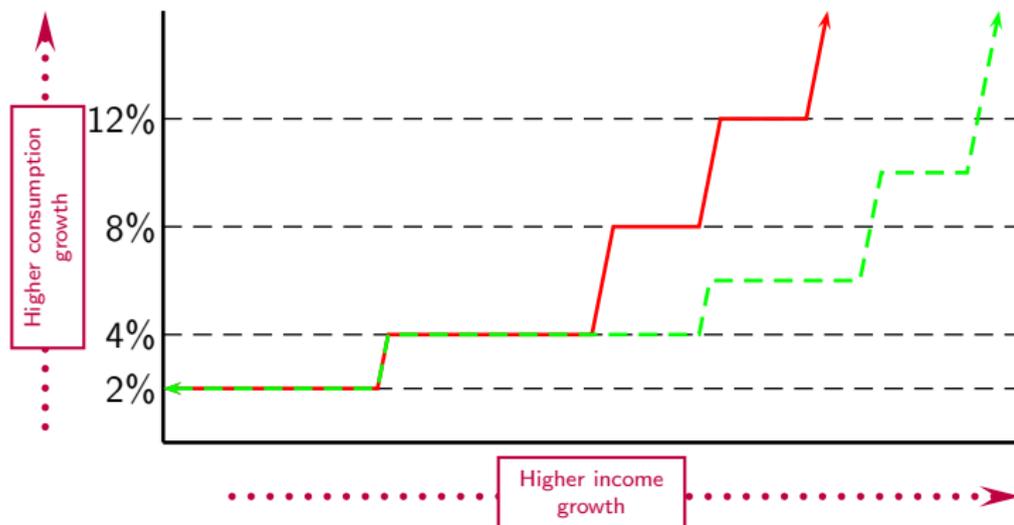
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Financial Innovation



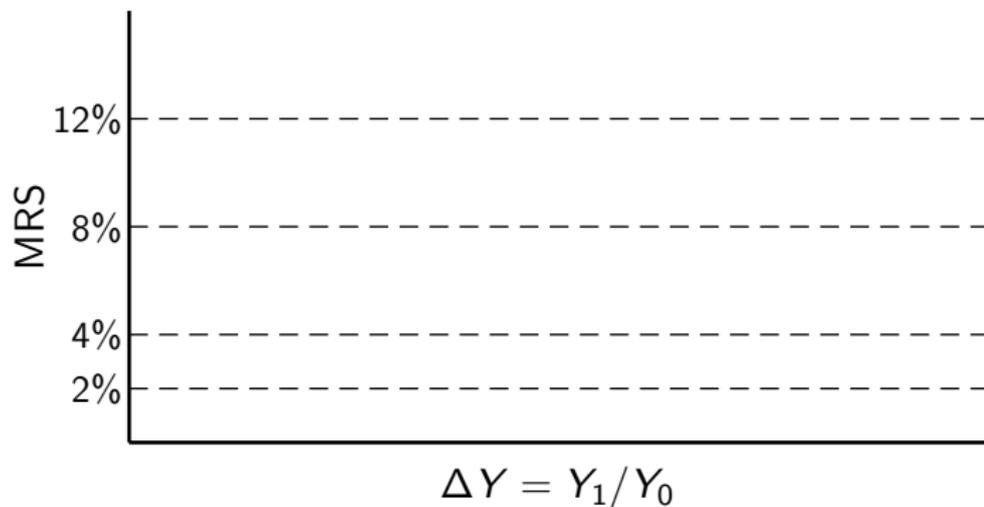
- Financial innovation: Lenders improve the terms
 - Higher limits
 - Lower interest rates

Financial Innovation

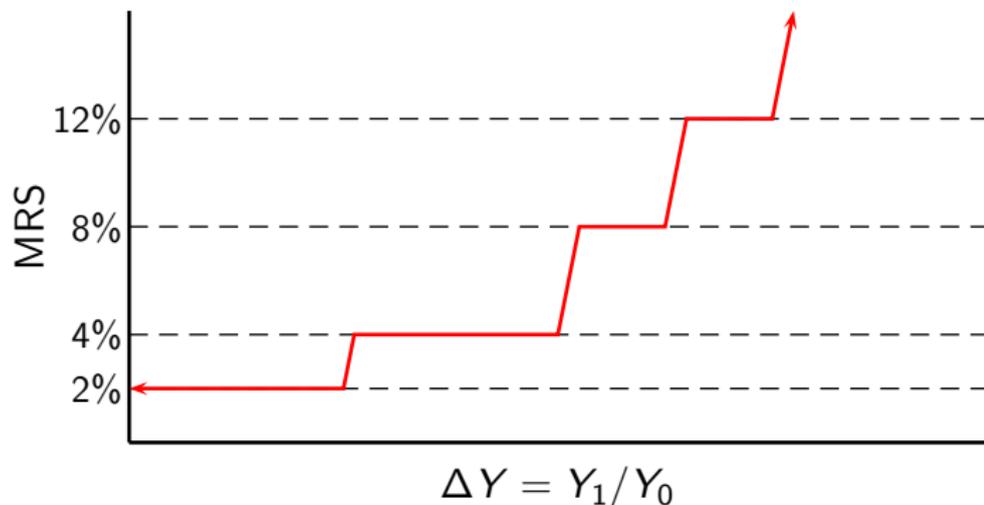


- Financial innovation: Lenders improve the terms
 - Higher limits
 - Lower interest rates
- Weaker $\Delta C - \Delta Y$ relationship.

Problem of omitted variables

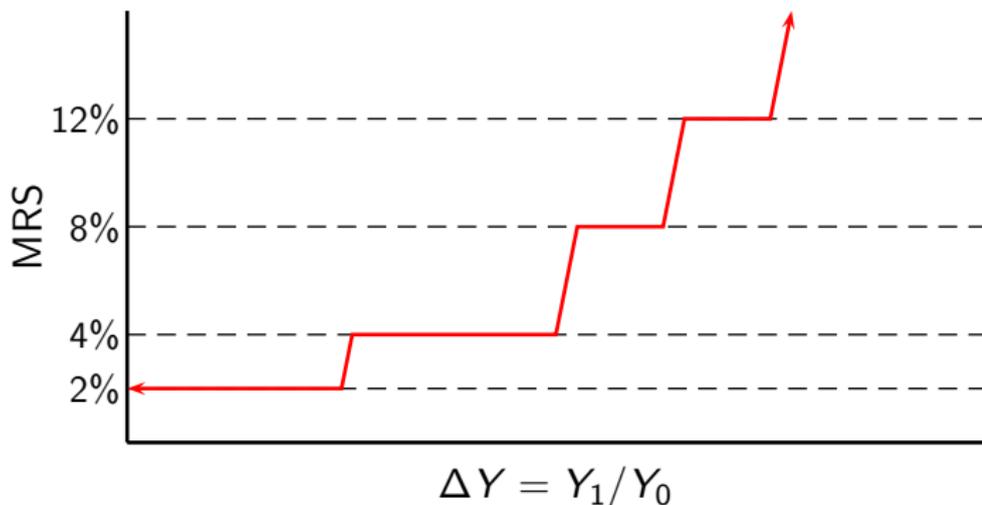


Problem of omitted variables



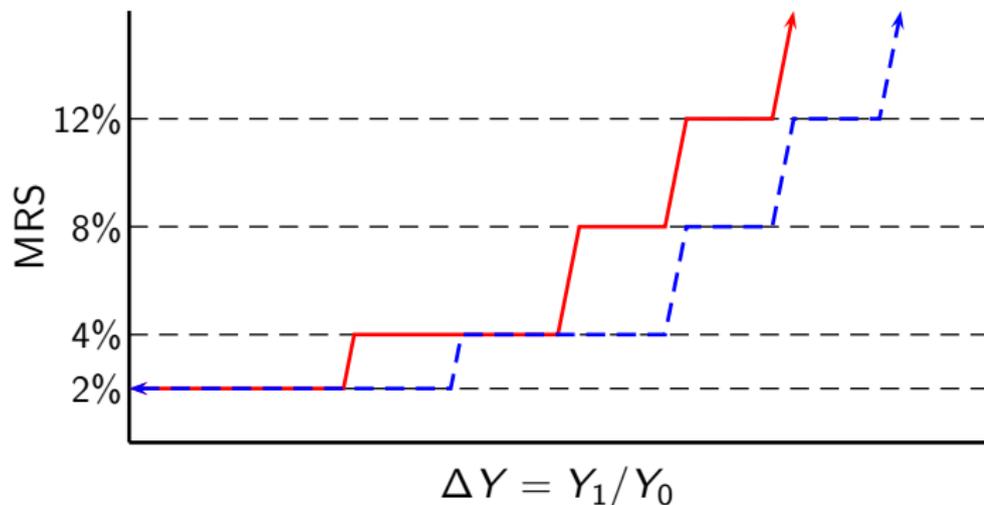
- Other things shift portfolio stairs.

Problem of omitted variables



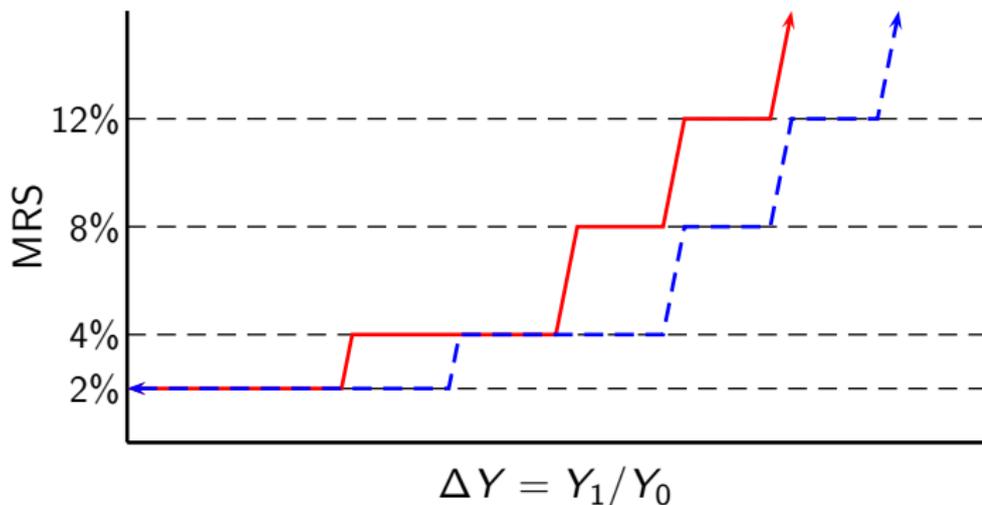
- Other things shift portfolio stairs.
- Wealth

Problem of omitted variables



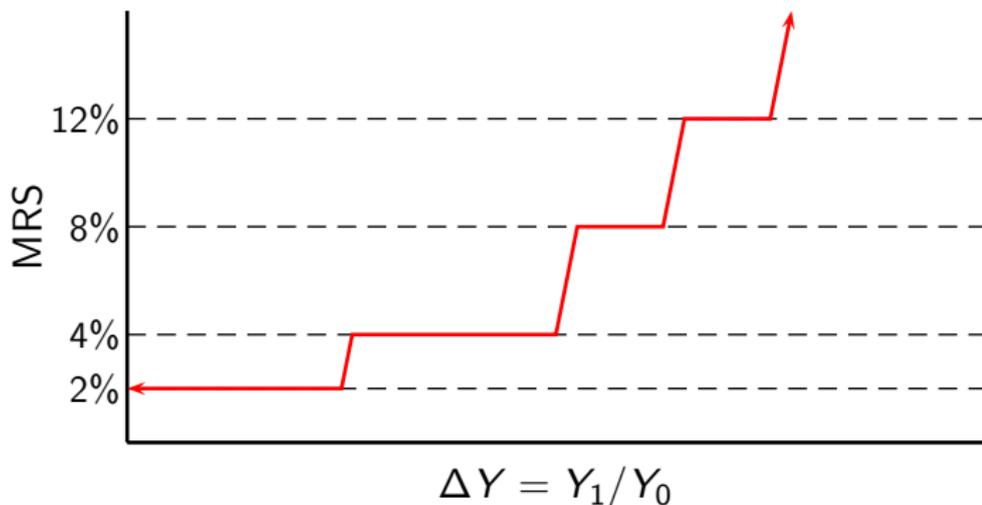
- Other things shift portfolio stairs.
- Wealth
 - higher wealth shifts stairs to the right.

Problem of omitted variables



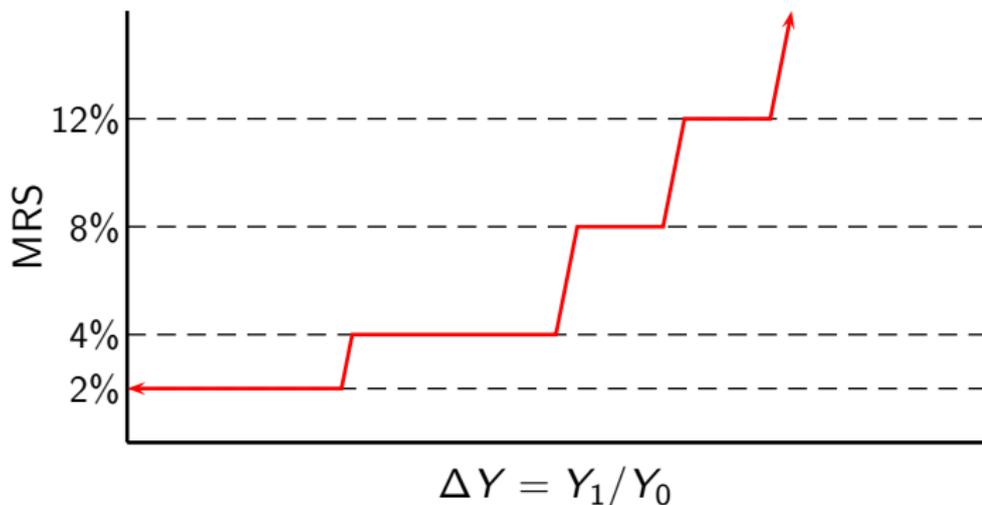
- Other things shift portfolio stairs.
- Wealth
 - higher wealth shifts stairs to the right.
 - for given income growth, borrow less.

Problem of omitted variables



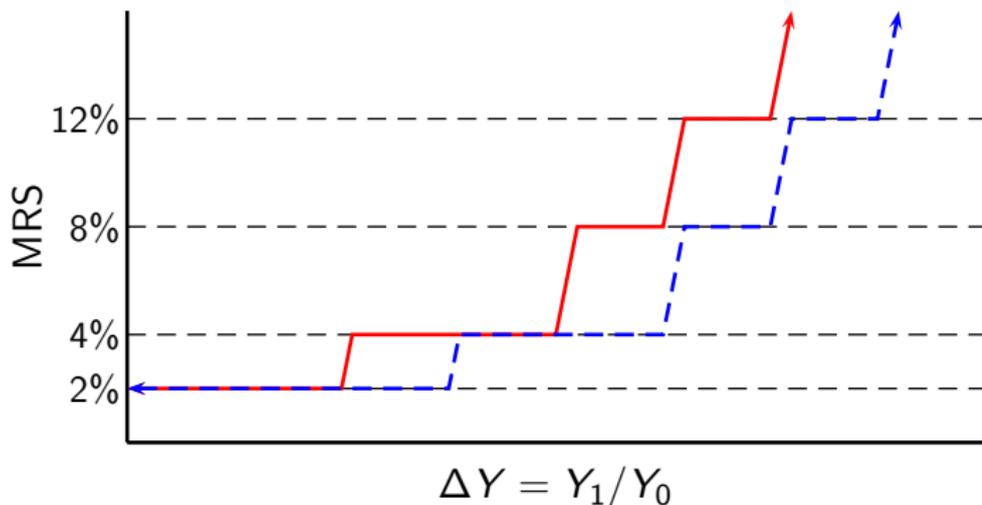
- Preferences

Problem of omitted variables



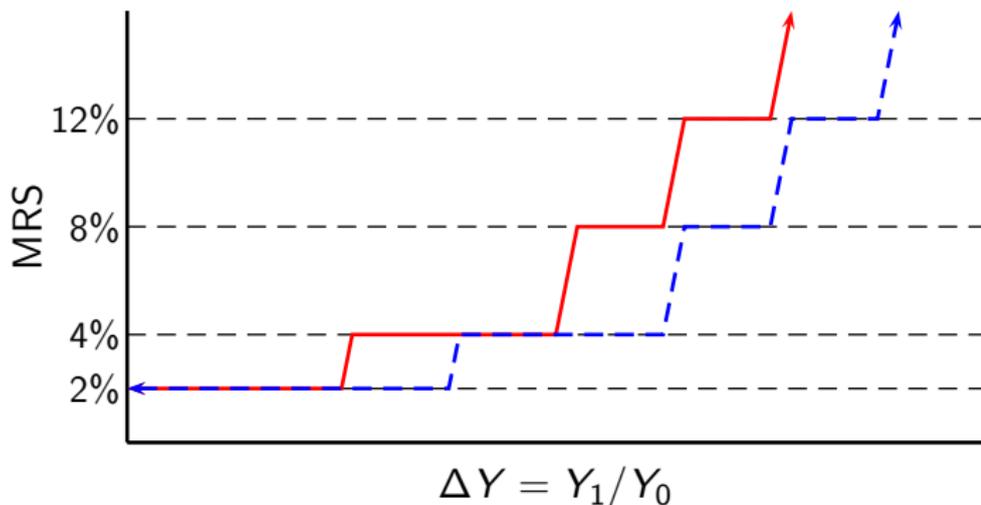
- Preferences
- Discount rate

Problem of omitted variables



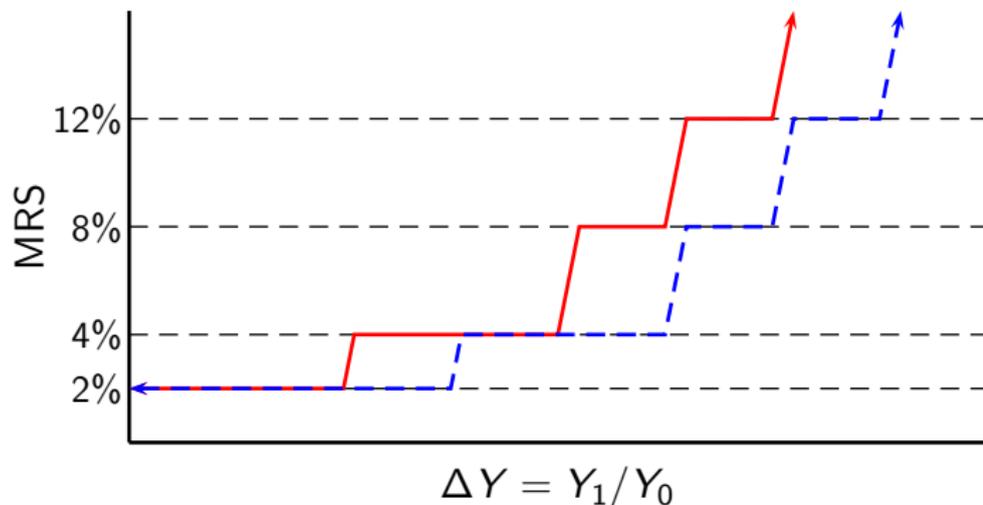
- Preferences
- Discount rate
 - more patient shifts stairs to the right.

Problem of omitted variables



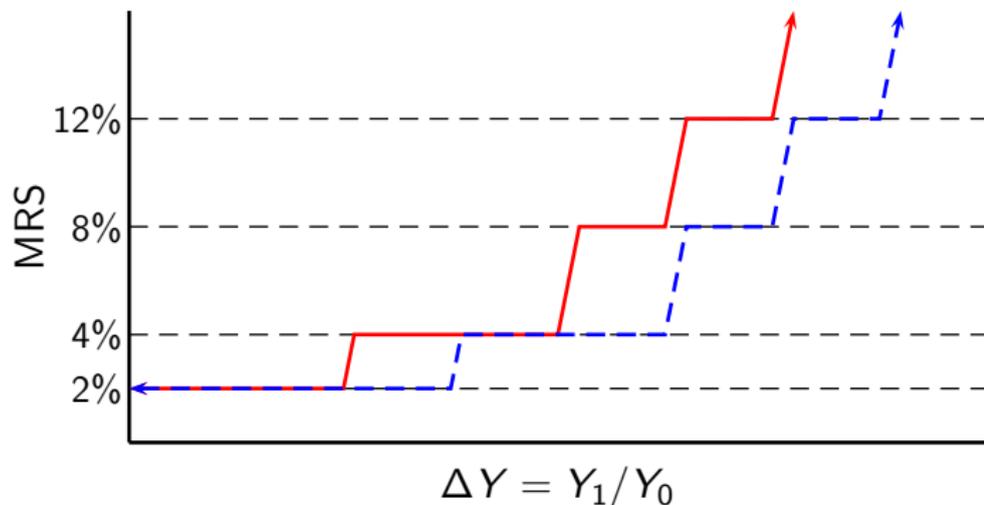
- Preferences
- Discount rate
 - more patient shifts stairs to the right.
 - for given income growth, borrow less.

Problem of omitted variables



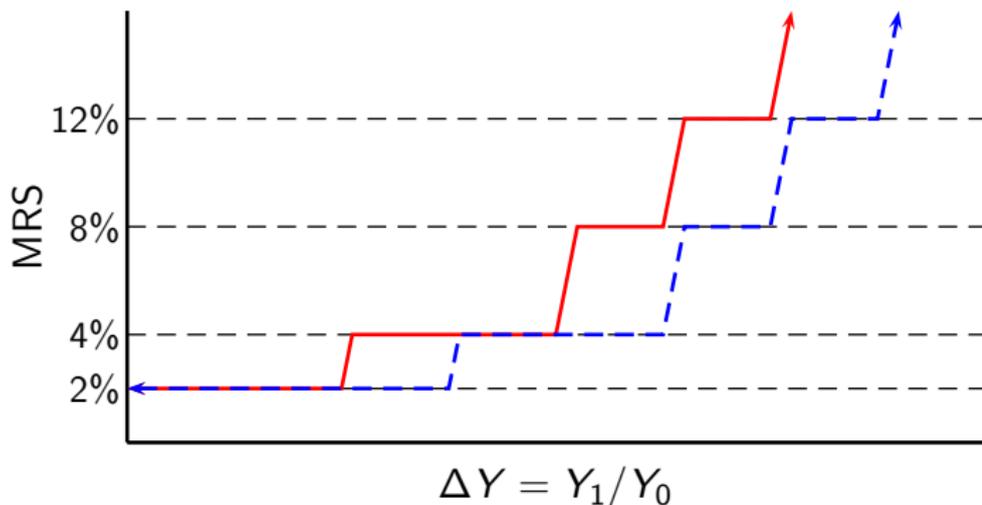
- Is this a problem?

Problem of omitted variables



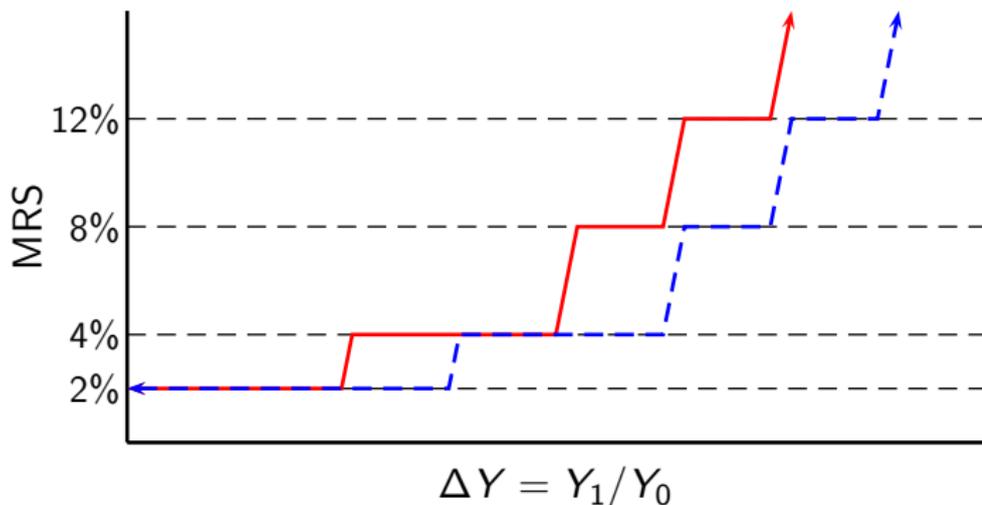
- Is this a problem?
- Not necessarily

Problem of omitted variables



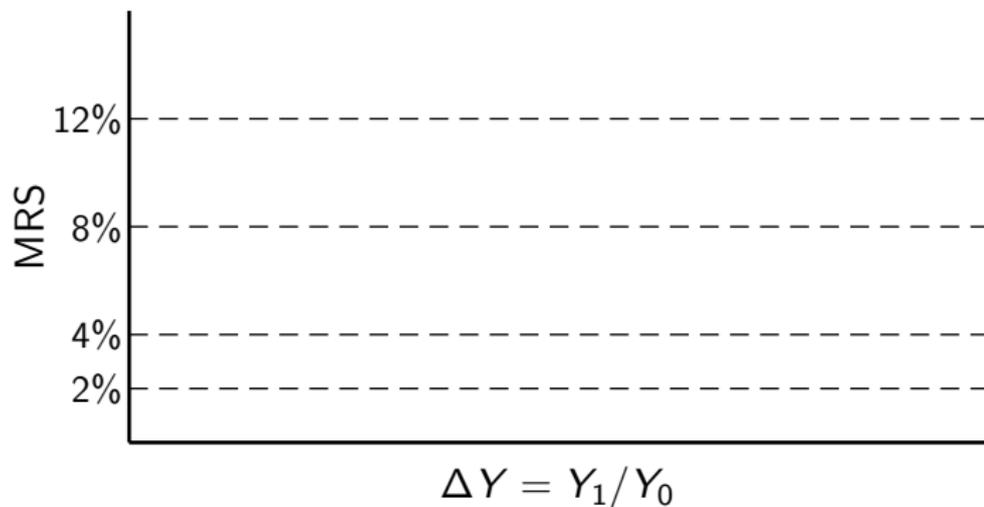
- Is this a problem?
- Not necessarily
 - If increase in wealth among high income growth types.

Problem of omitted variables

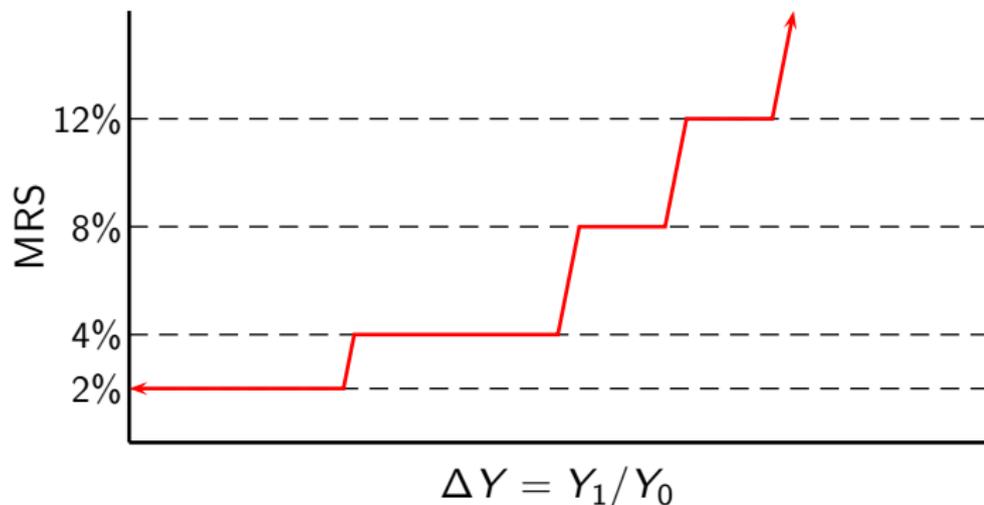


- Is this a problem?
- Not necessarily
 - If increase in wealth among high income growth types.
 - Will reduce sensitivity of consumption to income.

Splitting the sample

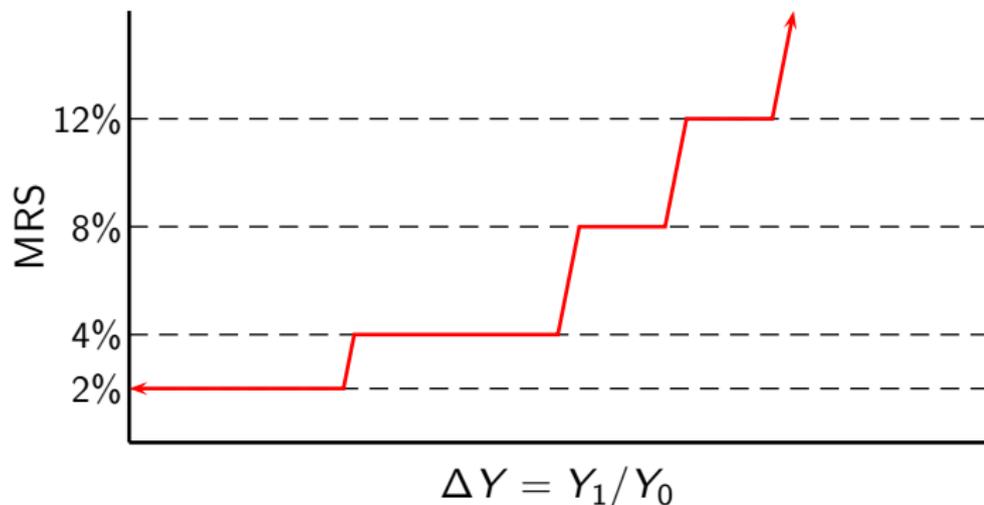


Splitting the sample



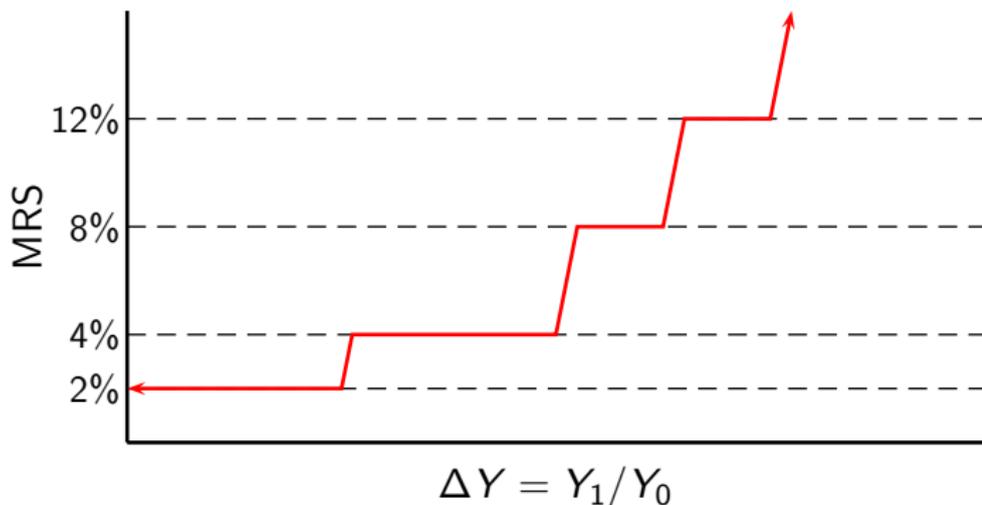
- Credit constraints not only possible explanation

Splitting the sample



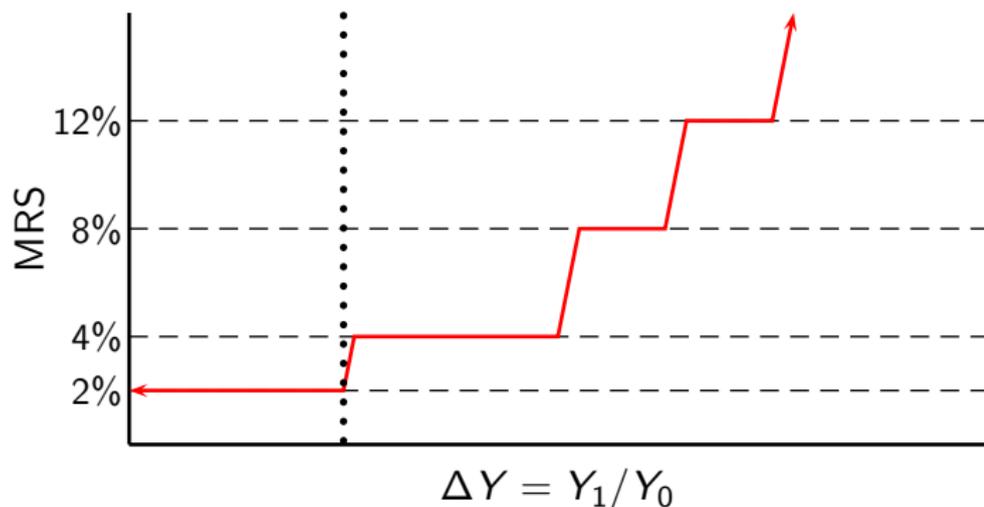
- Credit constraints not only possible explanation
- Myopia

Splitting the sample



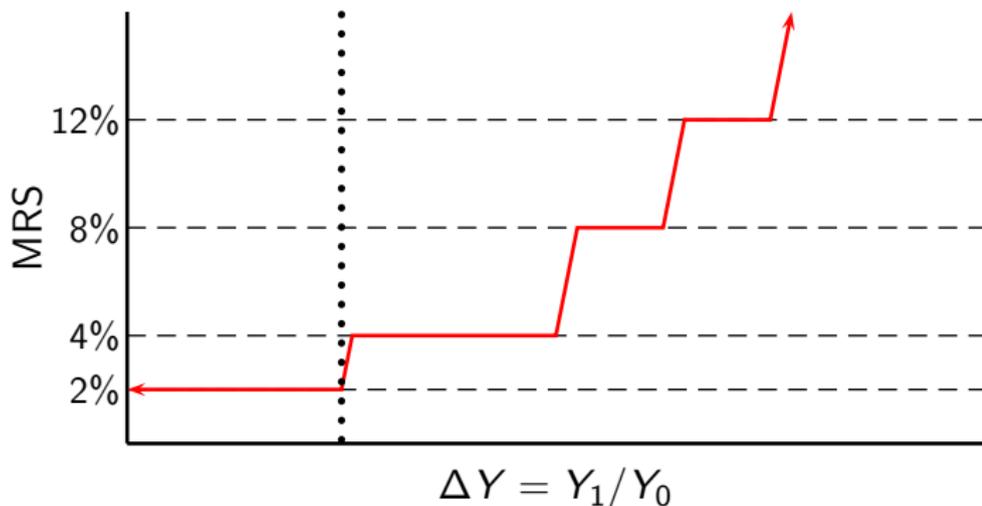
- Credit constraints not only possible explanation
- Myopia
- But credit constraints generate a non-linear relationship

Splitting the sample



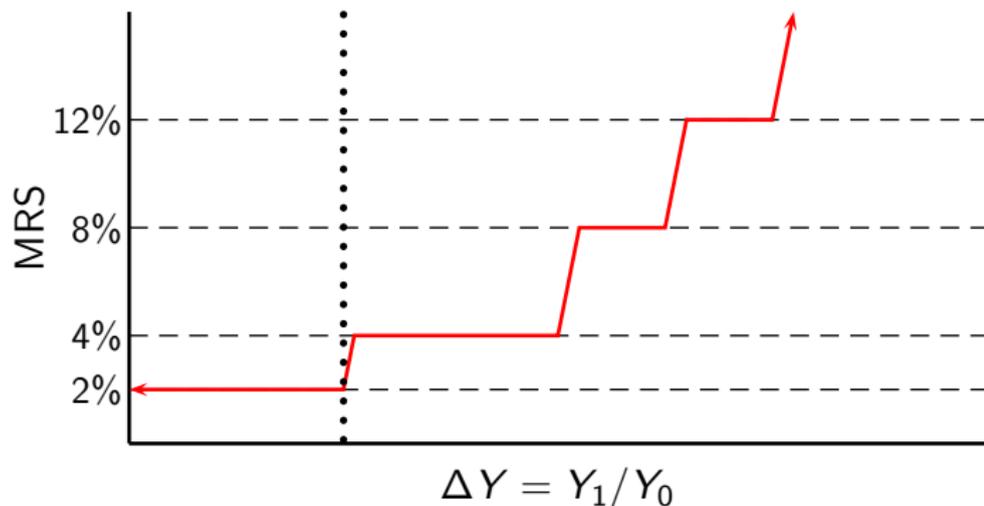
- Credit constraints not only possible explanation
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 - Can test by splitting the sample.

Splitting the sample



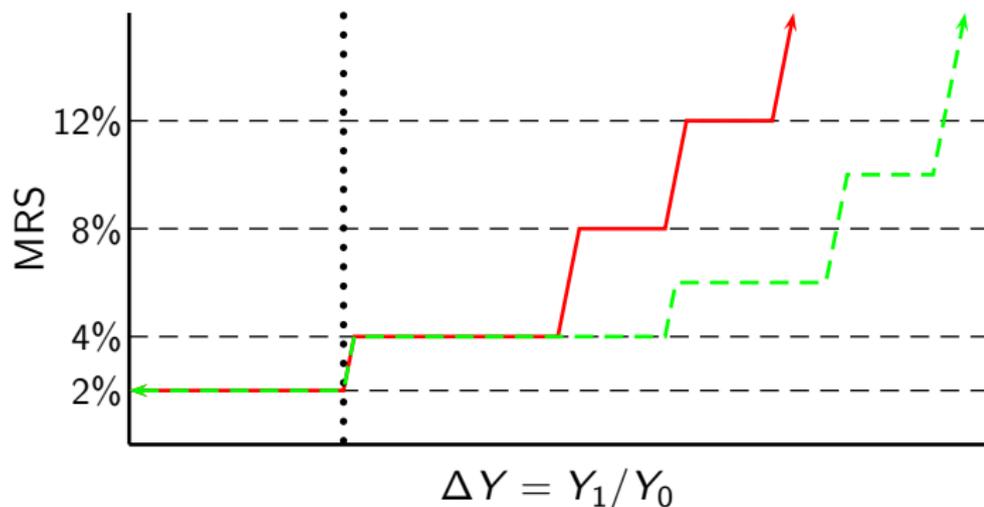
- Credit constraints not only possible explanation
- Myopia
- But credit constraints generate a non-linear relationship
 - Can test by splitting the sample.
 - Typically done at $\Delta Y = 0$ (arbitrary)

Splitting the sample



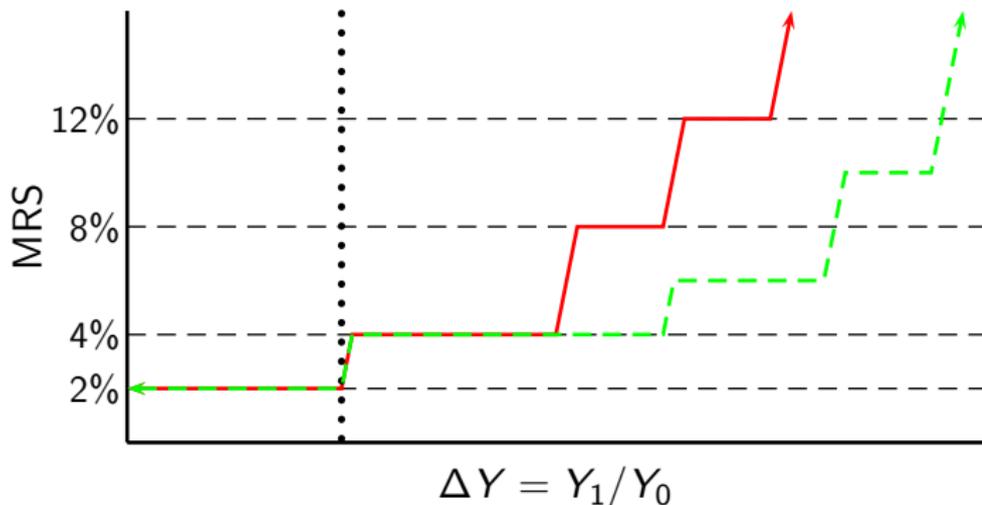
- Financial innovation implies:

Splitting the sample



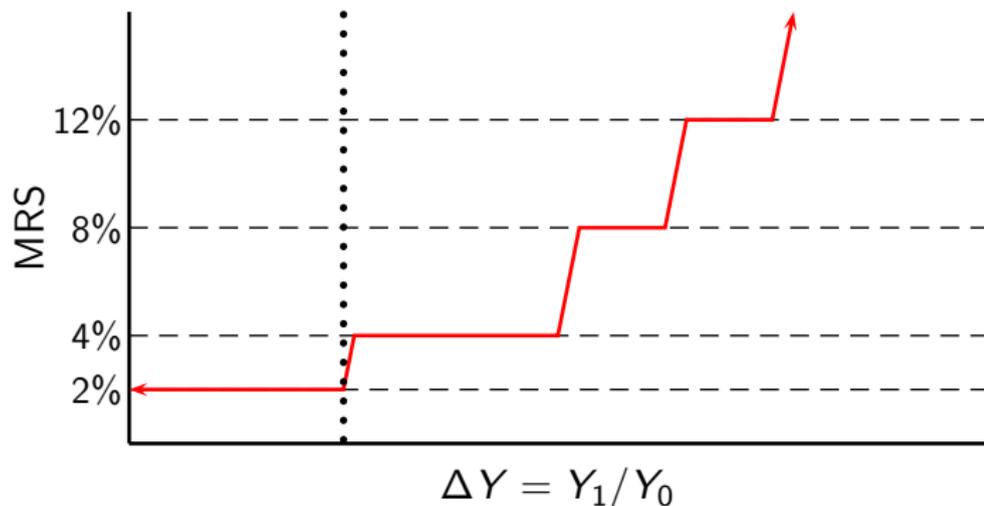
- Financial innovation implies:
 - Bigger changes for higher growth rates.

Splitting the sample



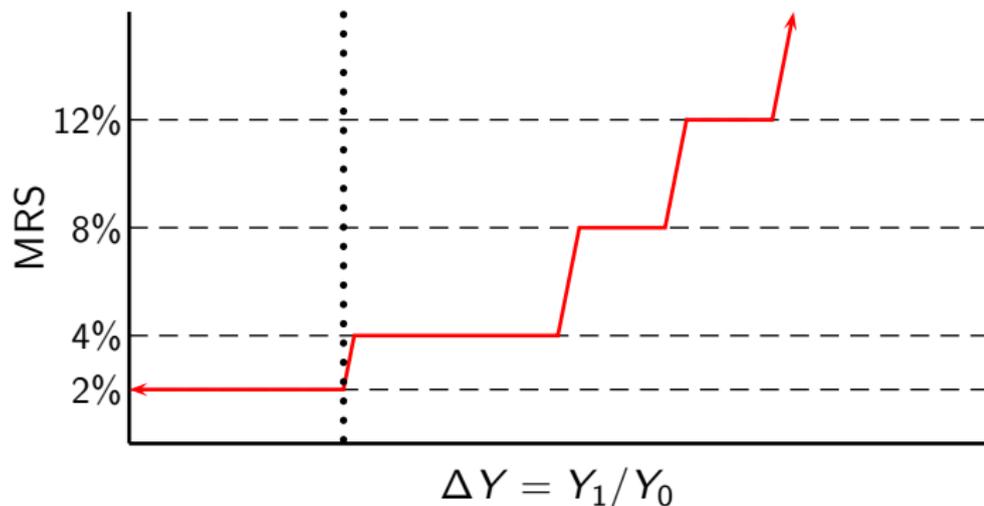
- Financial innovation implies:
 - Bigger changes for higher growth rates.
 - Bigger change $\Delta Y - \Delta C$ relationship for high growth.

Splitting the sample



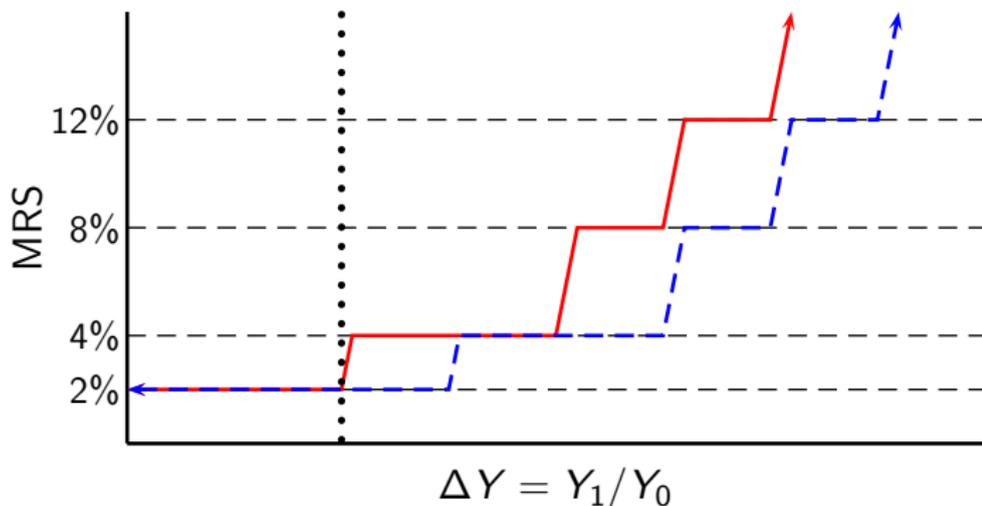
- Omitted variables?

Splitting the sample



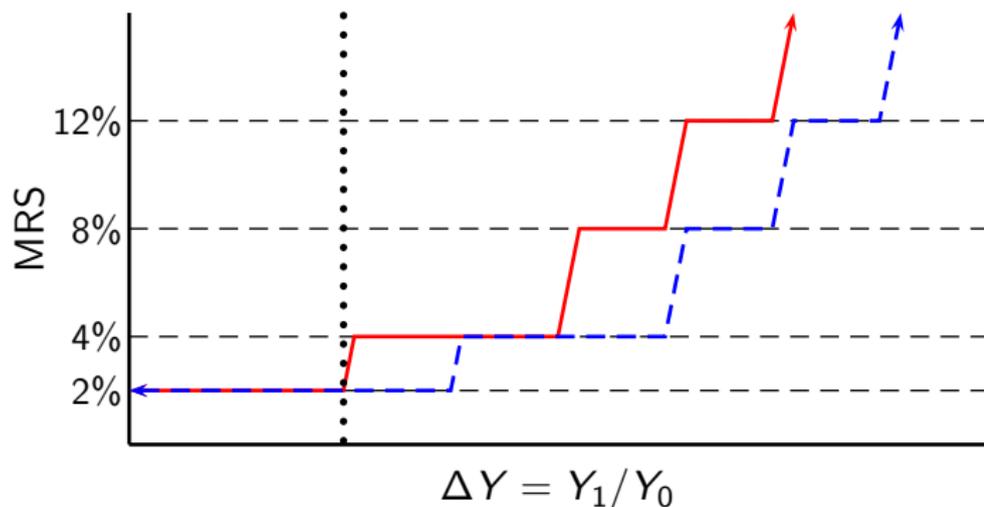
- Omitted variables?
- More serious

Splitting the sample



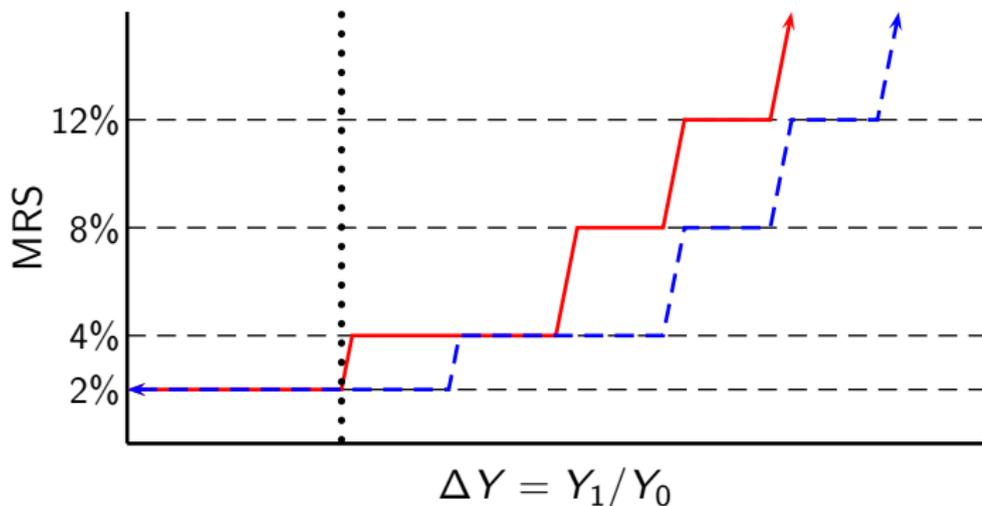
- Omitted variables?
- More serious
- Increasing wealth, for example, implies the same thing.

Splitting the sample



- Omitted variables?
- More serious
- Increasing wealth, for example, implies the same thing.
- Households wealthier after 1985 than before

Splitting the sample



- Omitted variables?
- More serious
- Increasing wealth, for example, implies the same thing.
- Households wealthier after 1985 than before
 - 15% higher W/Y according to Flow of Funds.

Conclusion

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- Paper clearly a bit rough right now.
- But it has the potential to illuminate both the causes and consequences of financial innovation.