Aspirations: The Roots of Inspiration and Frustration

Debraj Ray, NYU and Warwick

Most of this material represents joint research with **Garance Genicot** (2017, 2020, 2022).

Milan August 2022

Decision Theory Based on Aspirations

- **Aspirations-based models:**
  - The use of **milestones**, references or targets
  - An emphasis on the **social basis** of those targets

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  - The use of **milestones**, references or targets
  - An emphasis on the **social basis** of those targets
- **Close relatives:**
  - Reference points in behavioral decision theory

    But social determination of those reference points
  - Comparisons with others (Veblen, Duesenberry, Frank)

    The aspirations approach has its own set of specific predictions.

Personal Origins

- **My own thinking** about aspirations comes from:
- Development economics:
  - 1998 text: aspirations $\mapsto$ frustration, inspiration, complacency …
- Ethnic and economic polarization
  - with Joan Esteban (1994, 1999)
- The tunnel effect; the "capacity to aspire."
  - Hirschman (1973) and Appadurai (2004)
- Reinforcement learning in games:
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- Reinforcement learning in games:
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- And like any parent, bringing up my own kids …

The Lives of Others

- **Individual preferences fundamentally dependent on the lives of others:**
  - Absurd to think about inequality, unrest, conflict, etc. without this.
- Those lives on ever-sharper display
  - Reduced doubling times, the internet, social media …
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Hirschman and Rothschild 1973

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Hirschman and Rothschild 1973

- "The French found their position all the more intolerable as it became better."

Tocqueville, 1856

Aspirations as Reference Points or Milestones

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$$\mathbf{a} = \Psi(\mathbf{y}, F),$$

- $\mathbf{y} =$ **current** personal outcome, $F =$ social distribution over outcomes.

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- $\mathbf{y} =$ **current** personal outcome, $F =$ social distribution over outcomes.
- They anchor individual payoffs:

$$\underbrace{u(\mathbf{y} - \mathbf{k}(\mathbf{z}))}_{\text{current}} + \underbrace{w_0(\mathbf{z})}_{\text{future intrinsic}} + \underbrace{w_1(\mathbf{e})}_{\text{future aspirational}}$$

- where $\mathbf{z}$ is **future** outcome, and $\mathbf{e} = \max\{\mathbf{z} - \mathbf{a}, 0\}$.

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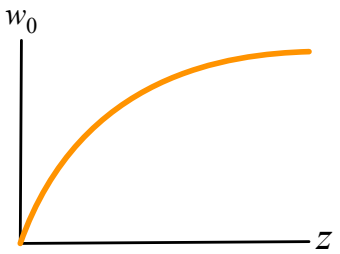

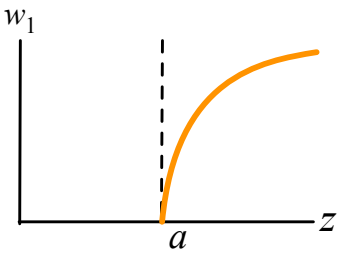

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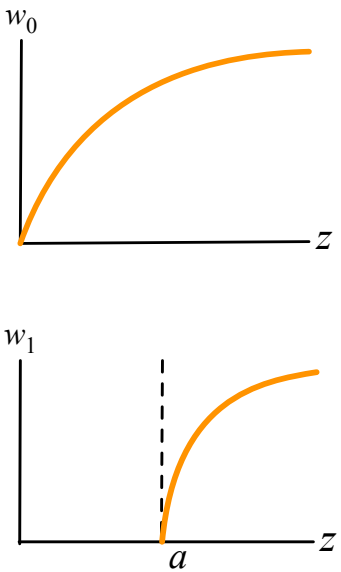

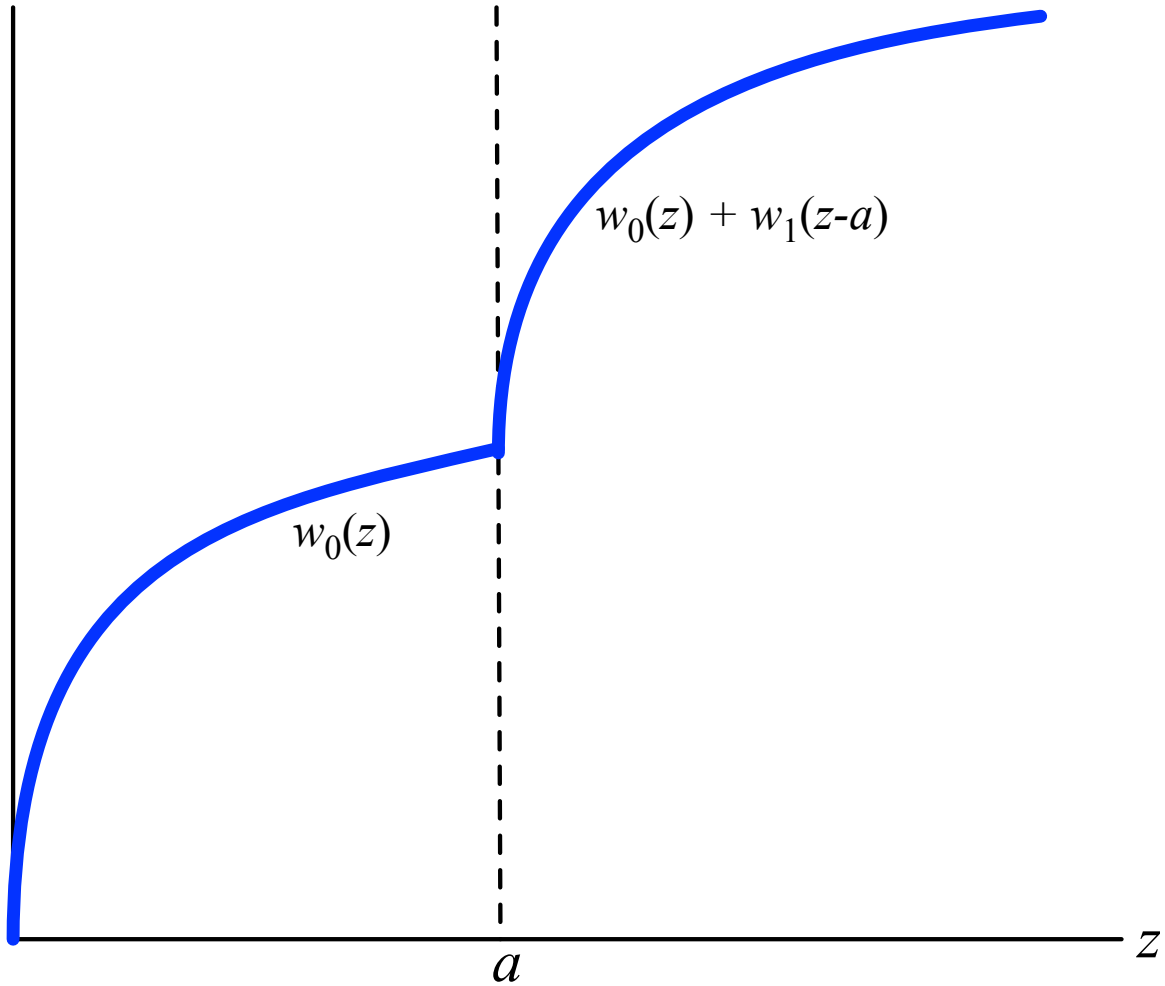

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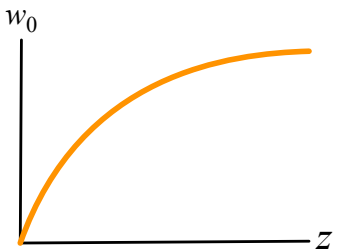

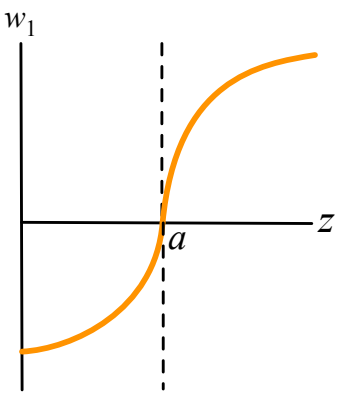

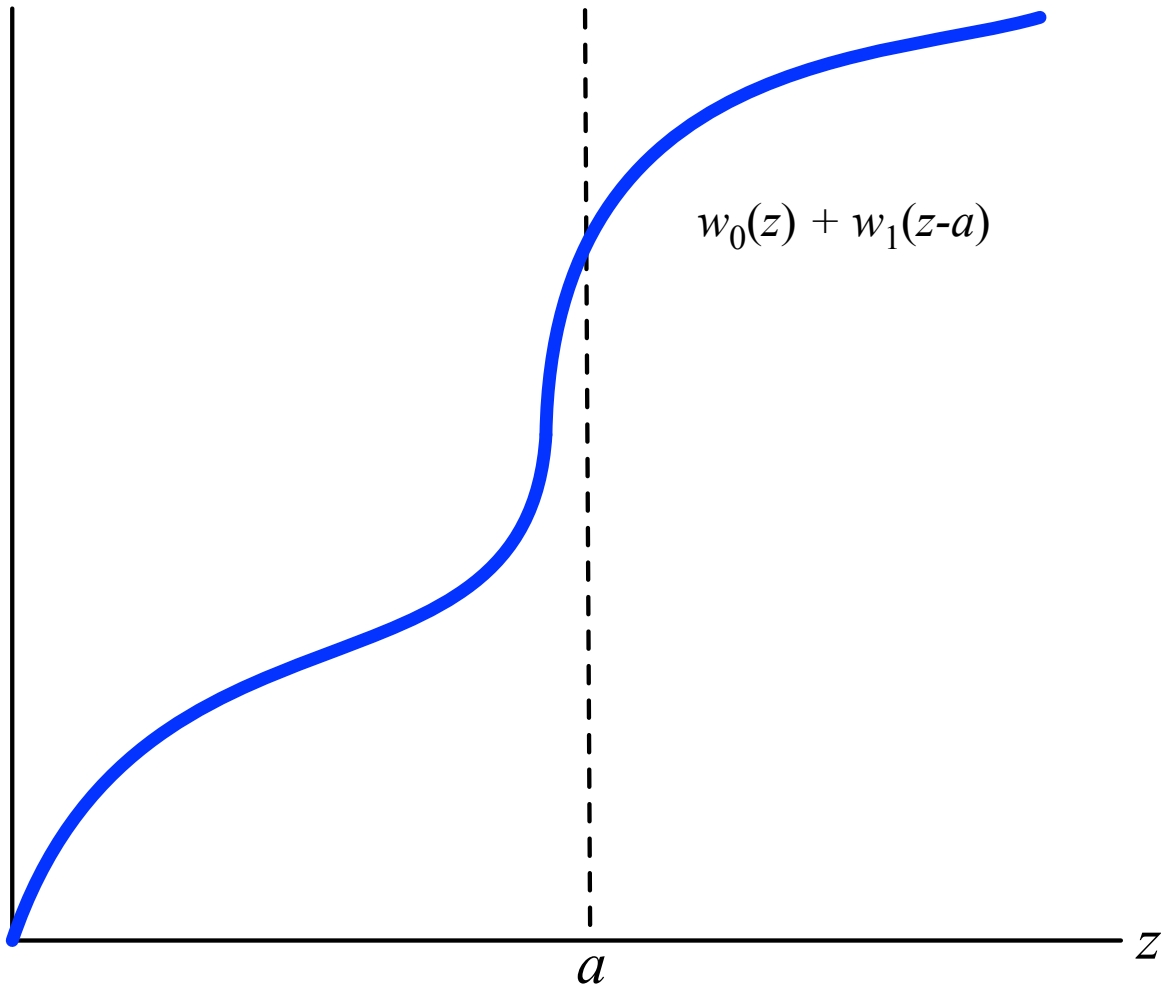

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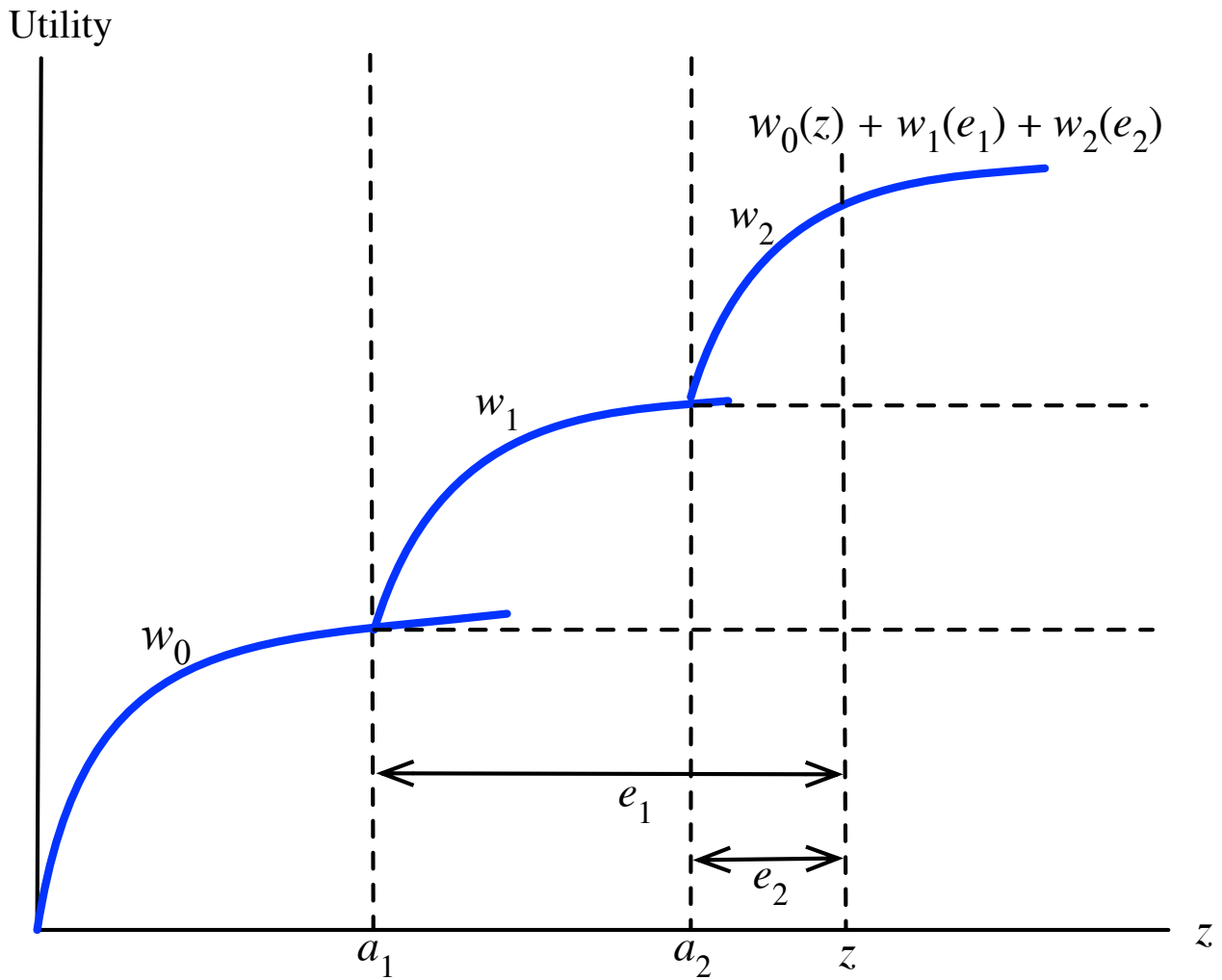

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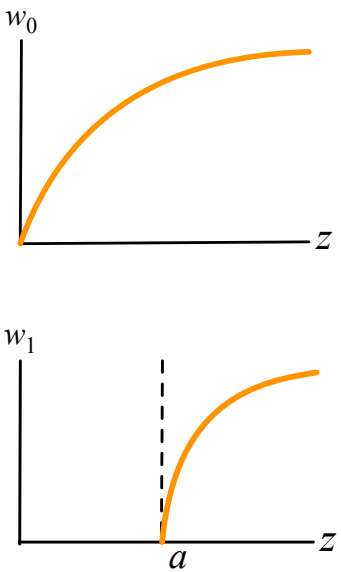

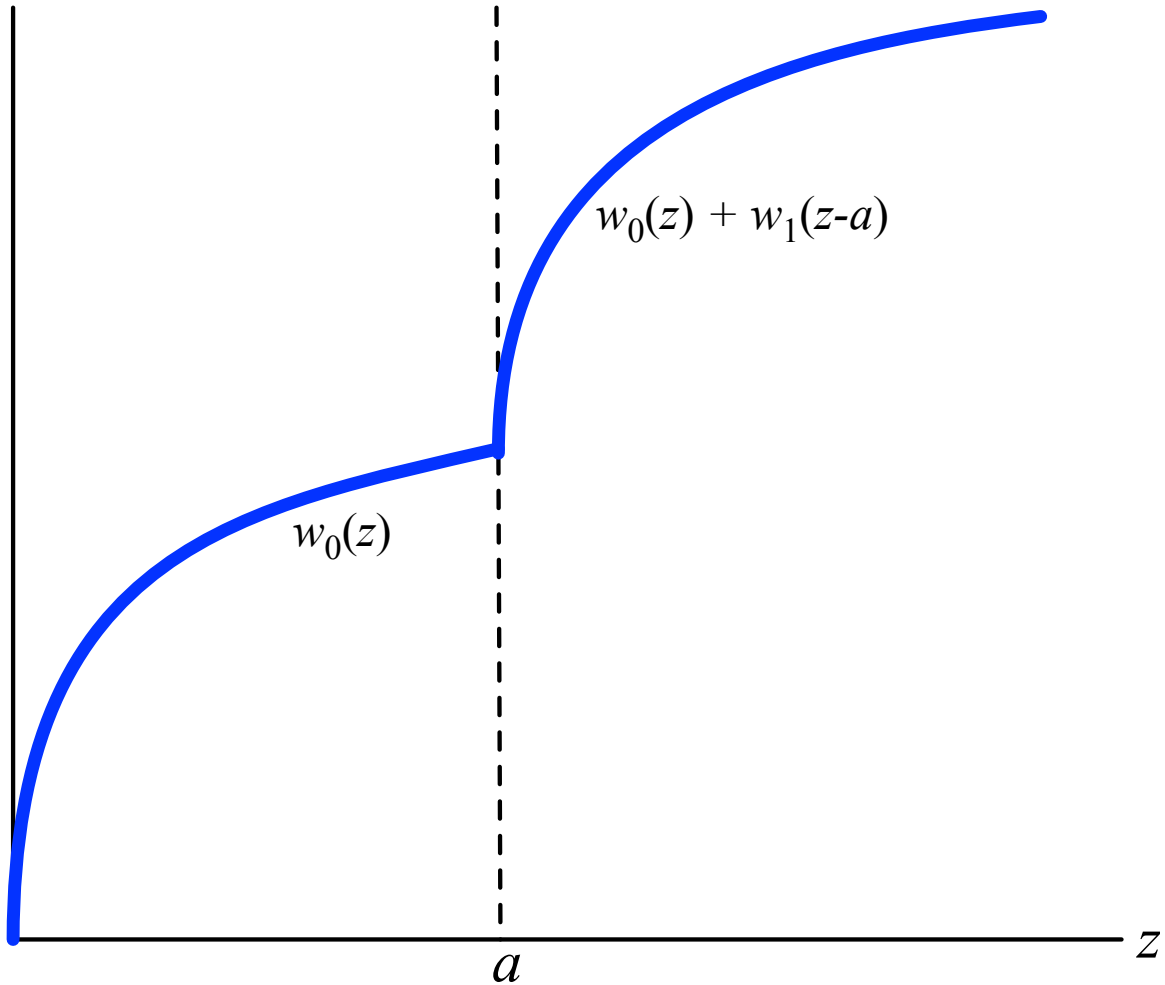

Main Features

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- **Individual goals $\rightarrow$ society:**
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  - Investment, mobility, inequality, segregation ...
- **Economic failure and ethnic salience:**
  - Orthogonal spillovers into collective action or conflict;
  - ethnic violence, anti-immigration sentiment, religious intolerance, BLM ...

Inspiration and Frustration

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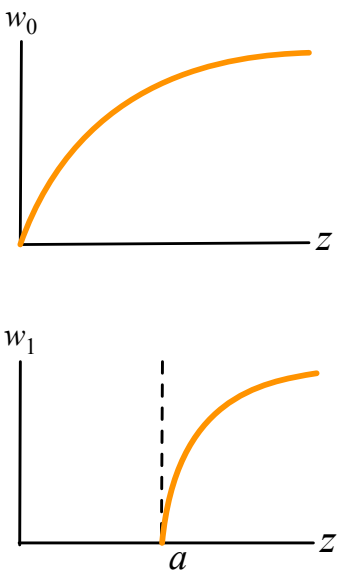

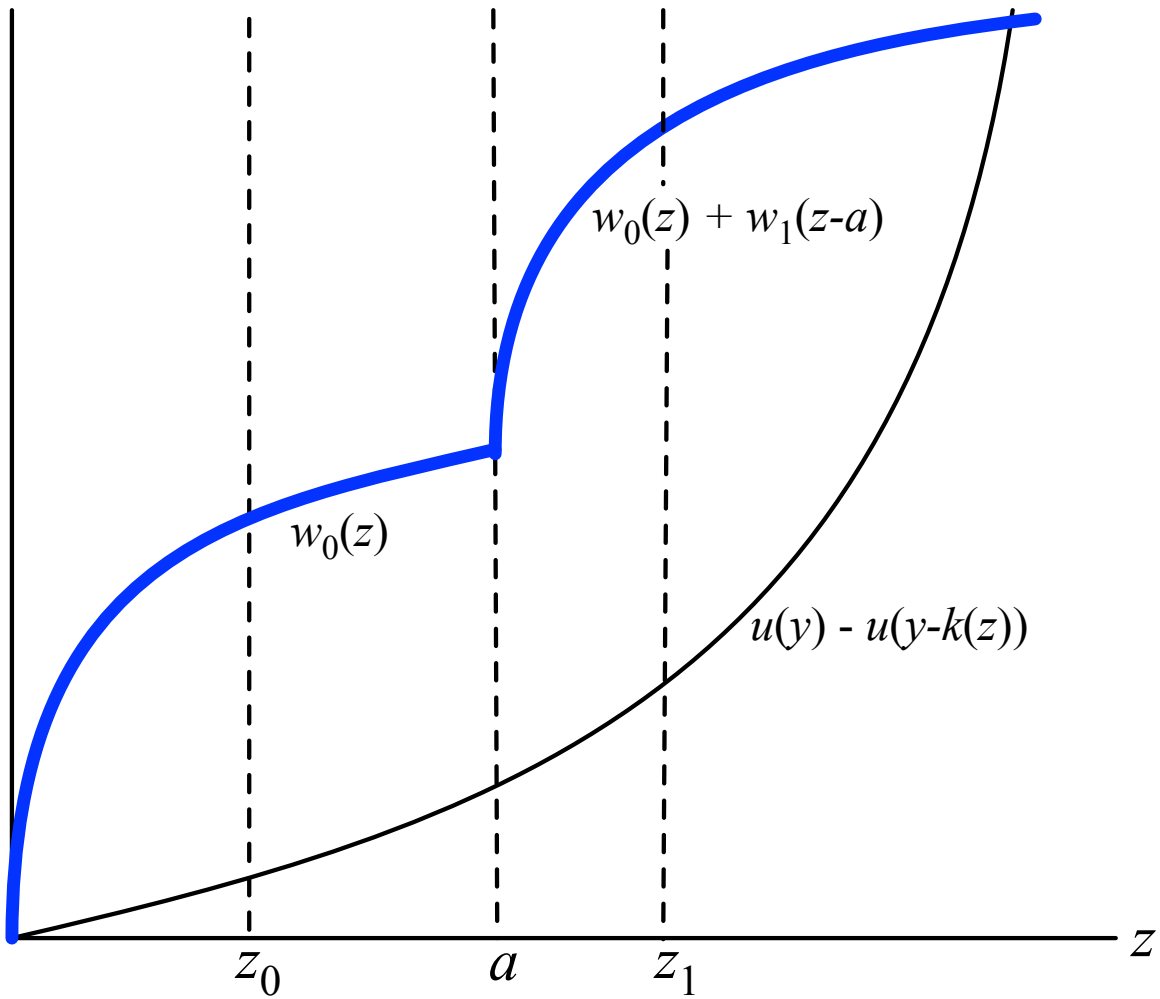

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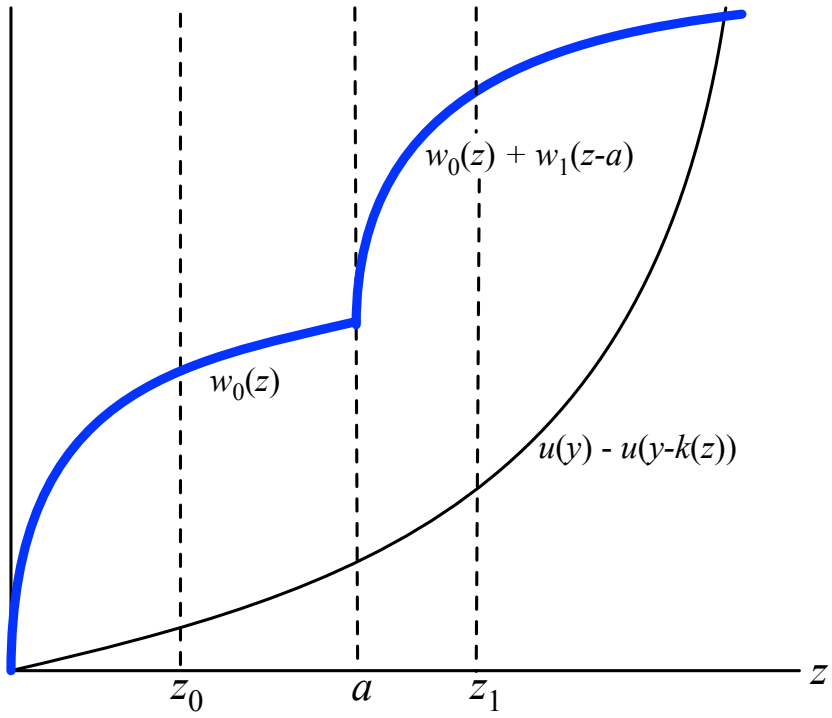

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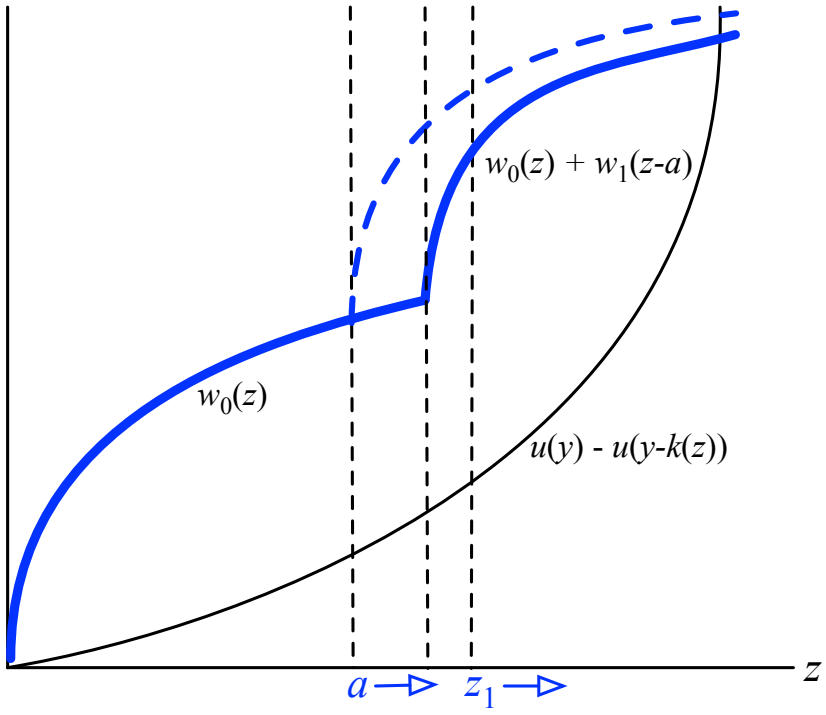

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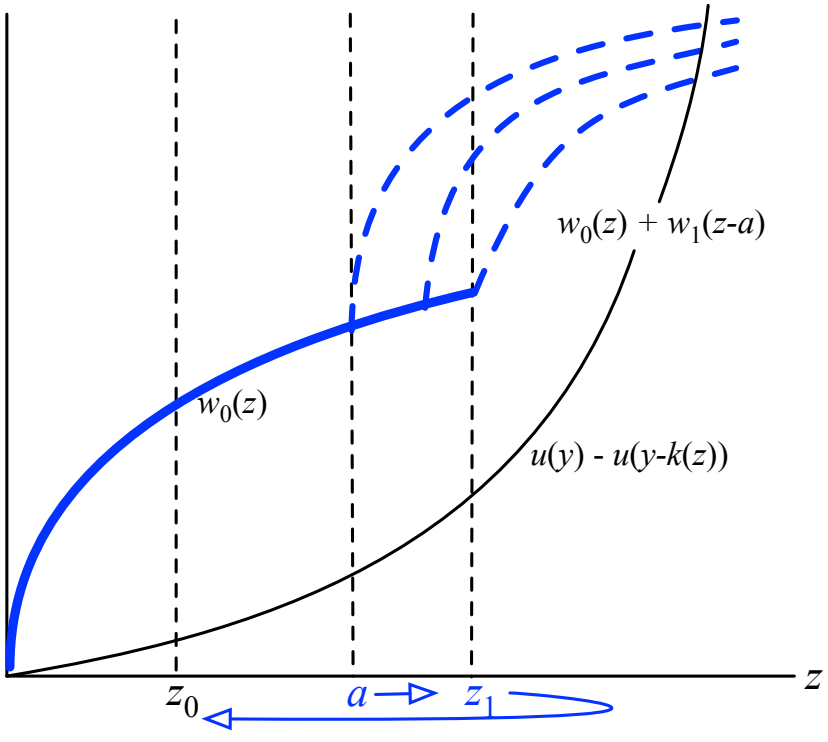

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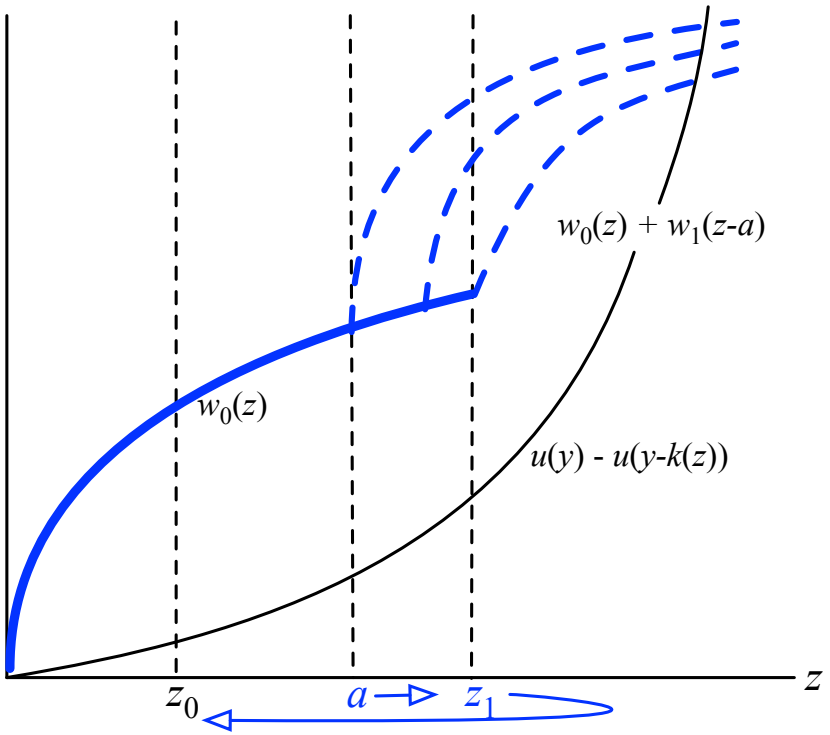

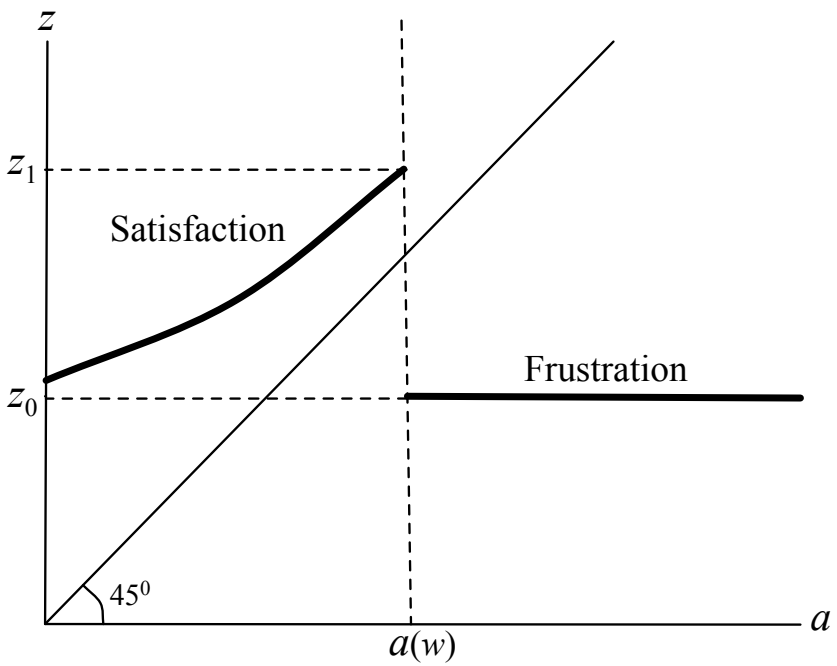

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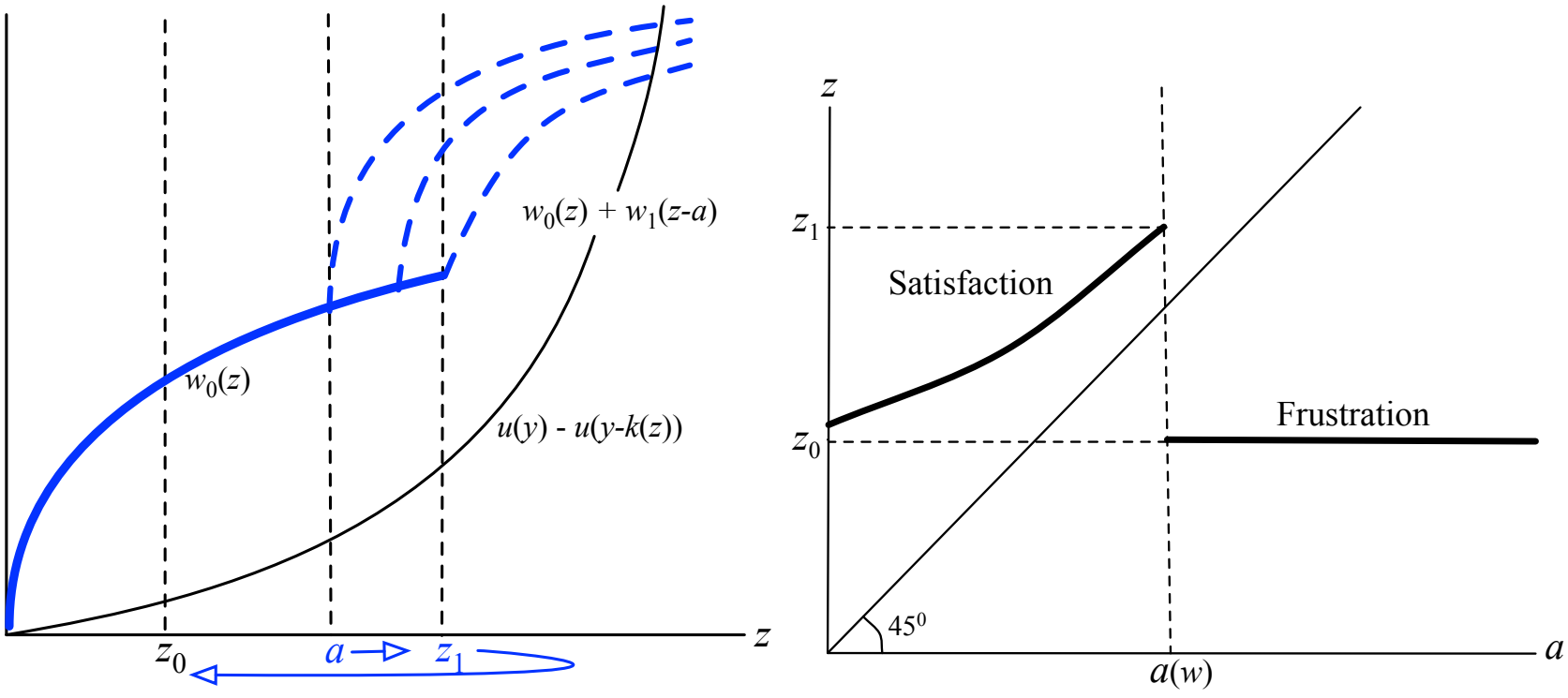

For every baseline y, there is a threshold $a(y)$ below which aspirations are met, and above which frustrated. When met, investment grows with aspirations. But once frustrated, investment jump *discontinuously* downward and thereafter remain insensitive to or decline with aspirations.

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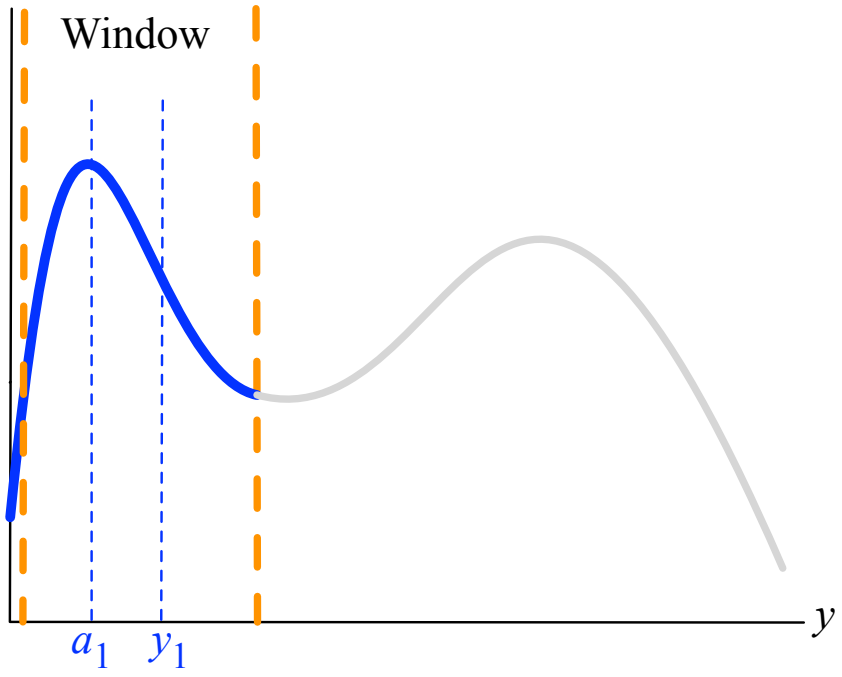
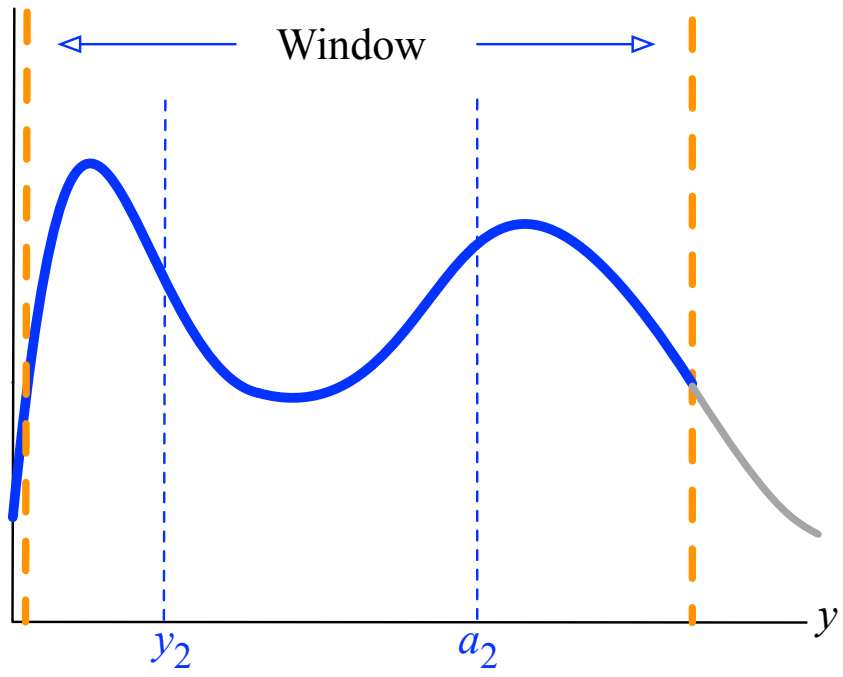


Narrow Window



Broad Window

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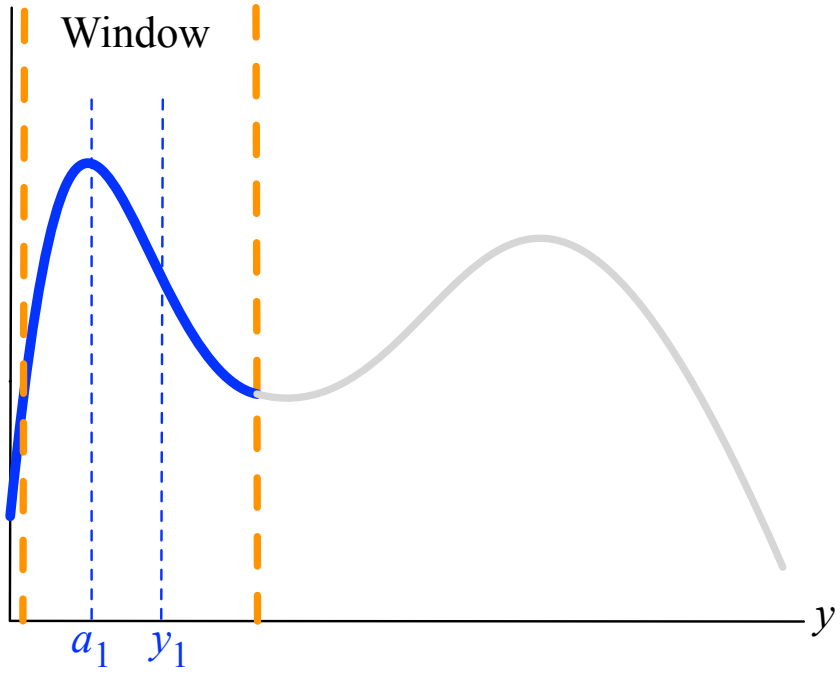
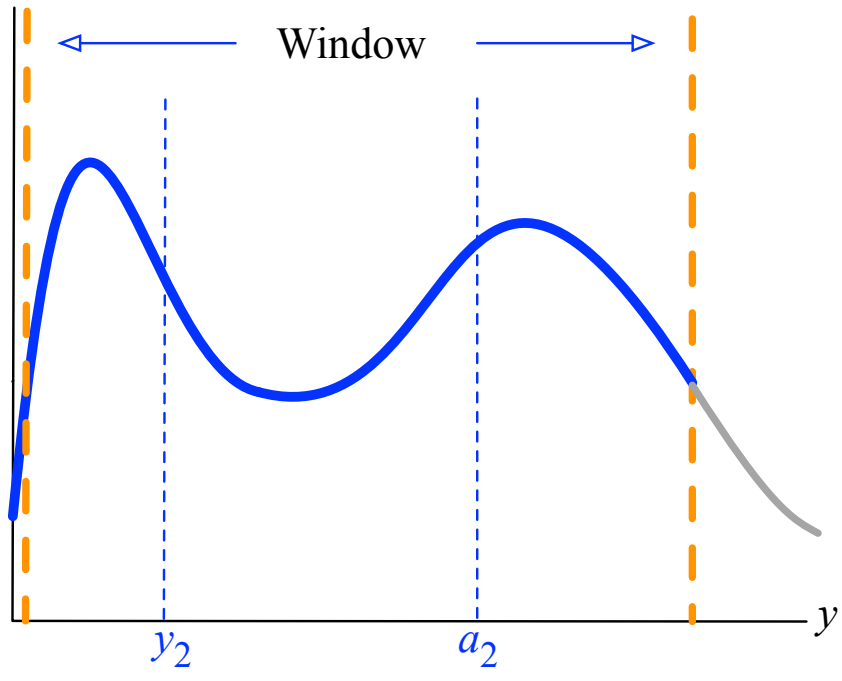


Narrow Window

Segregated societies:

Wilson (1987)



Broad Window

Television societies:

Jensen and Oster (2009), La Ferrara, Chong, and Duryea (2012)

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    Or simply the everyday evidence of one's own eyes.
- A failed capacity to aspire, or a failed capacity to reach the unreachable?

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  - "I have unreachable socially-determined aspirations, and so give up," or
  - "I have no aspirations"?
  - Hard to imagine the former, even if the former is at the root of it.
  - Suggests **caution in eliciting direct responses** regarding aspirations.

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- High aspirations $\Rightarrow$ disappointment, frustration, and social withdrawal

  Clair and Benjamin (2011), Carter-Wall and Whitfield (2012), Gorard et al. (2012), Mukherjee 2017.

Aspirations Failure

- Other evidence from **social psychology, sports, intertemporal planning** …
  - Goals that lie ahead, but not too far ahead, provide the best incentives

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  - Inverted-U between income-aspirations gap and proxies of future-oriented behavior; e.g., savings and intertemporal planning (Janzen et al. 2017).
  - All consistent with the idea that **moderate aspirations serve to motivate**, while aspirations that are **too high might discourage**.

Social Responses to Economic Change

- **Economic change, aspirations and conflict.** Two possibilities:

- Aspirations determined by group-level incomes, so groups focal to begin with.

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- Aspirations multidimensional; failure along the economic dimension

  Economic frustration $\Rightarrow$ social conflict.

  Will briefly discuss this second case here.

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- **Two-dimensional aspirations:** (Genicot-Ray 2020):
  - 1: economic investments, typically private.
  - 2: cultural/religious/nationalistic investments, often group-based.

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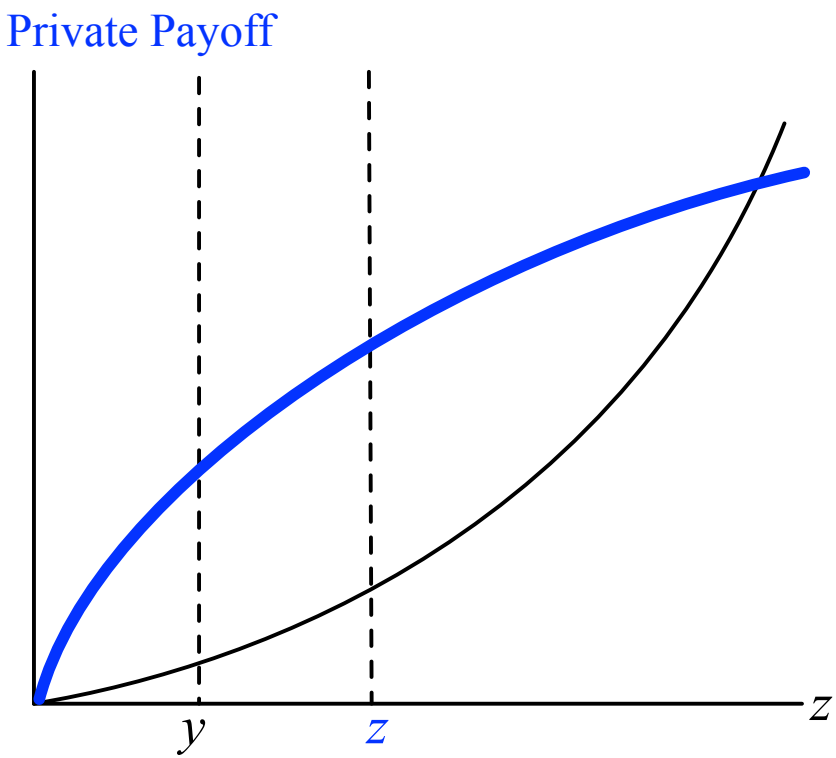

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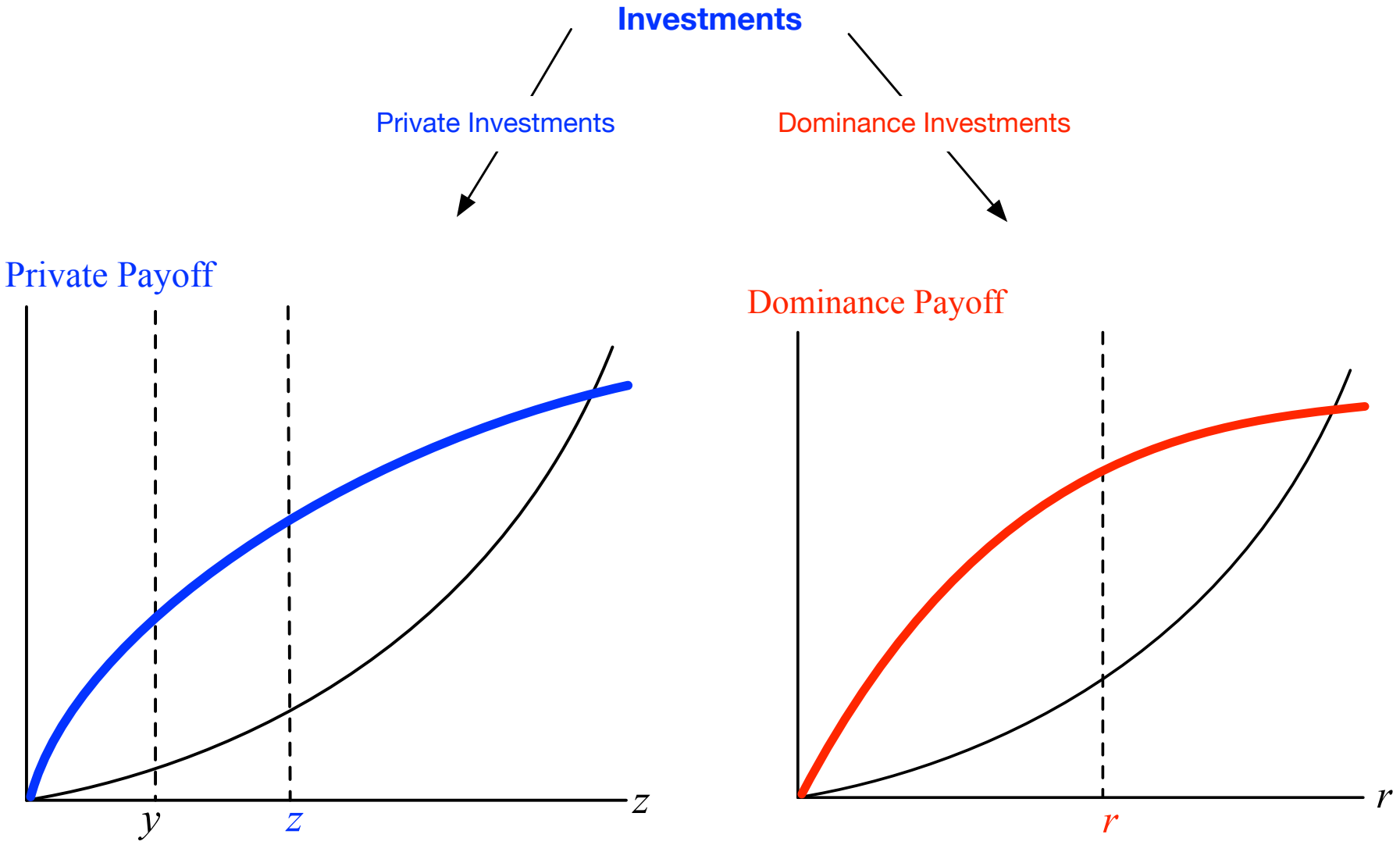

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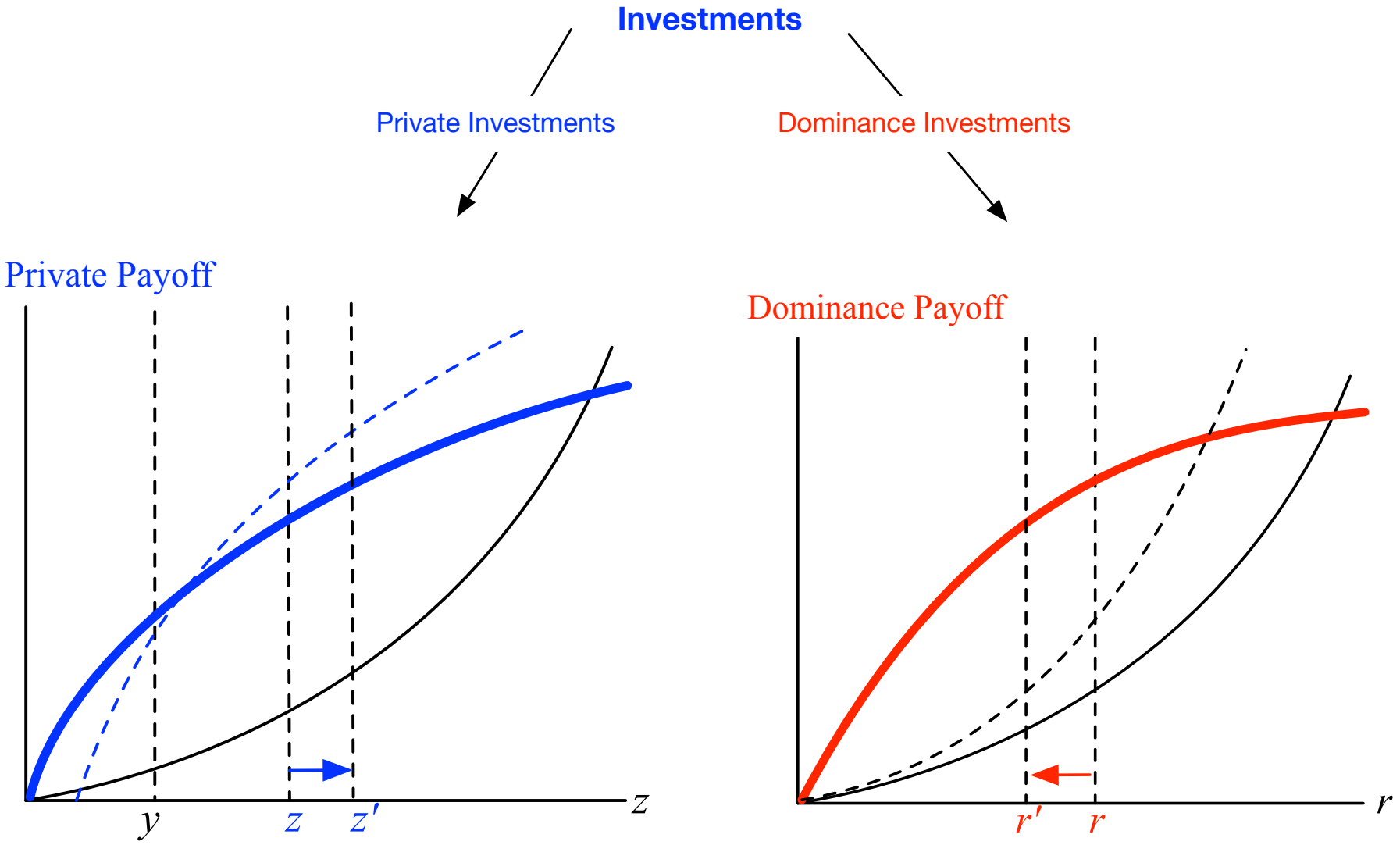

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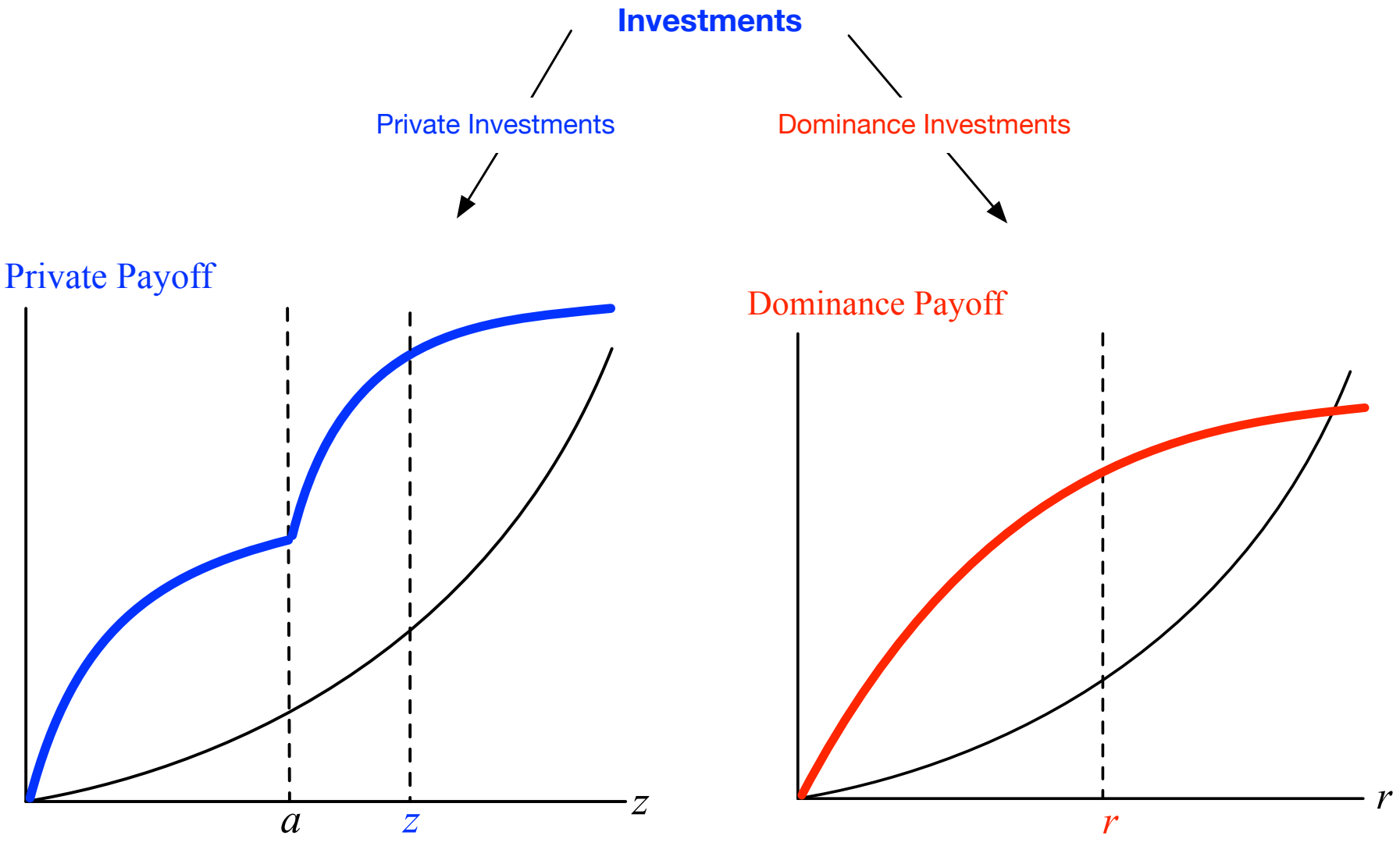

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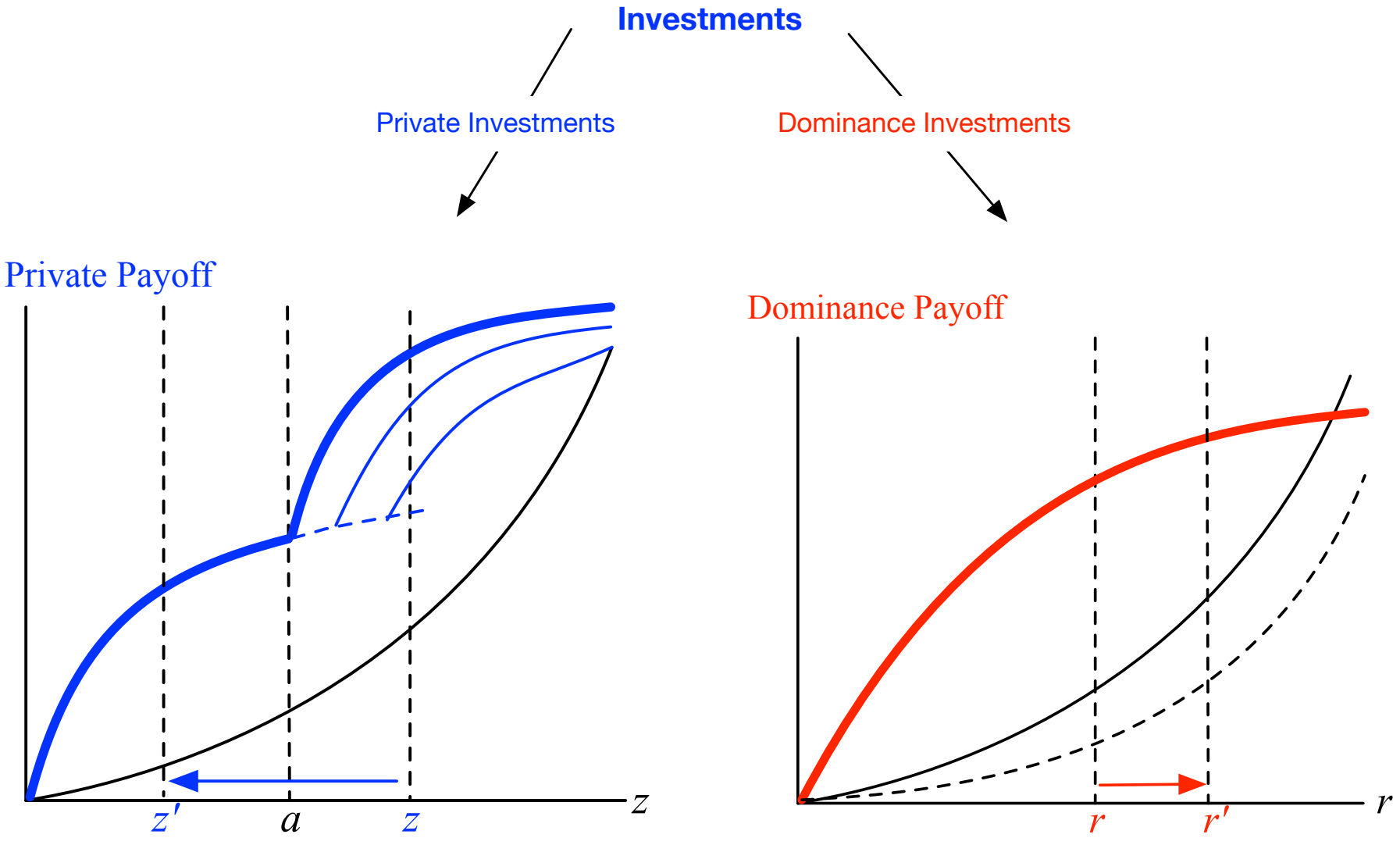

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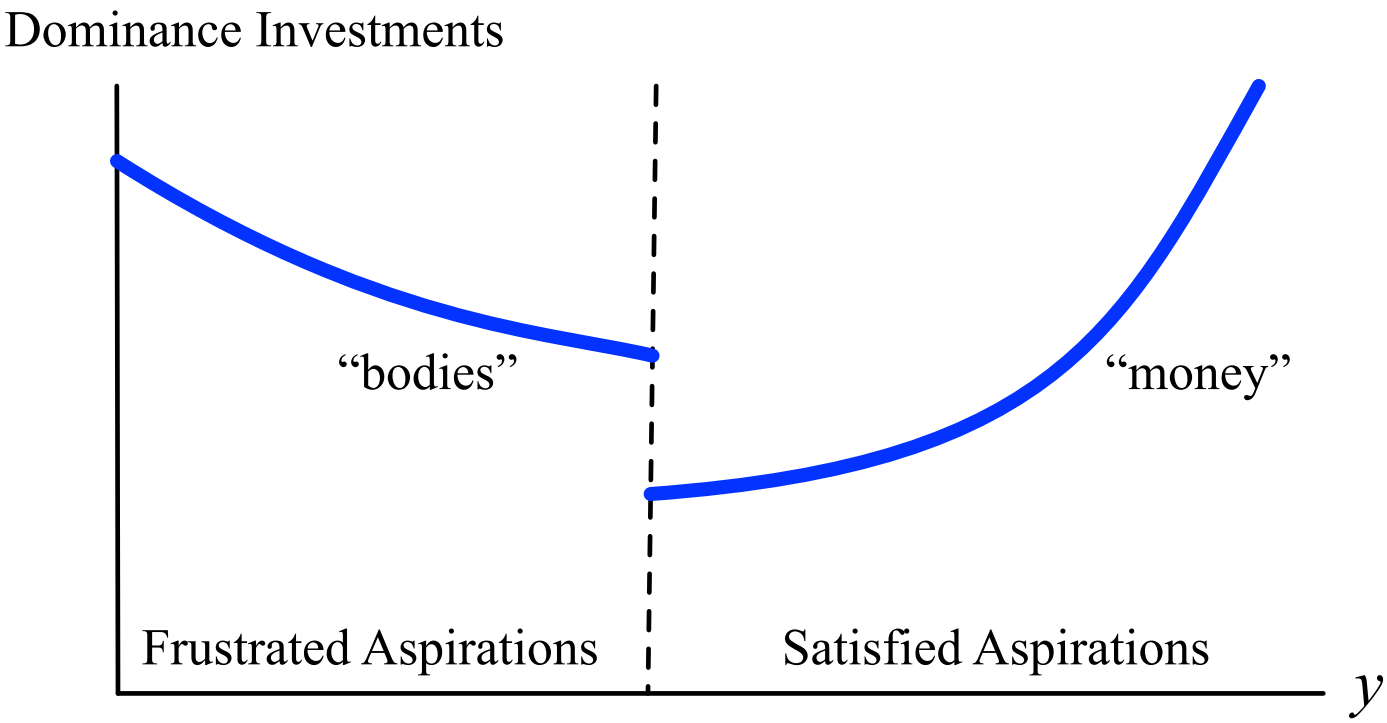

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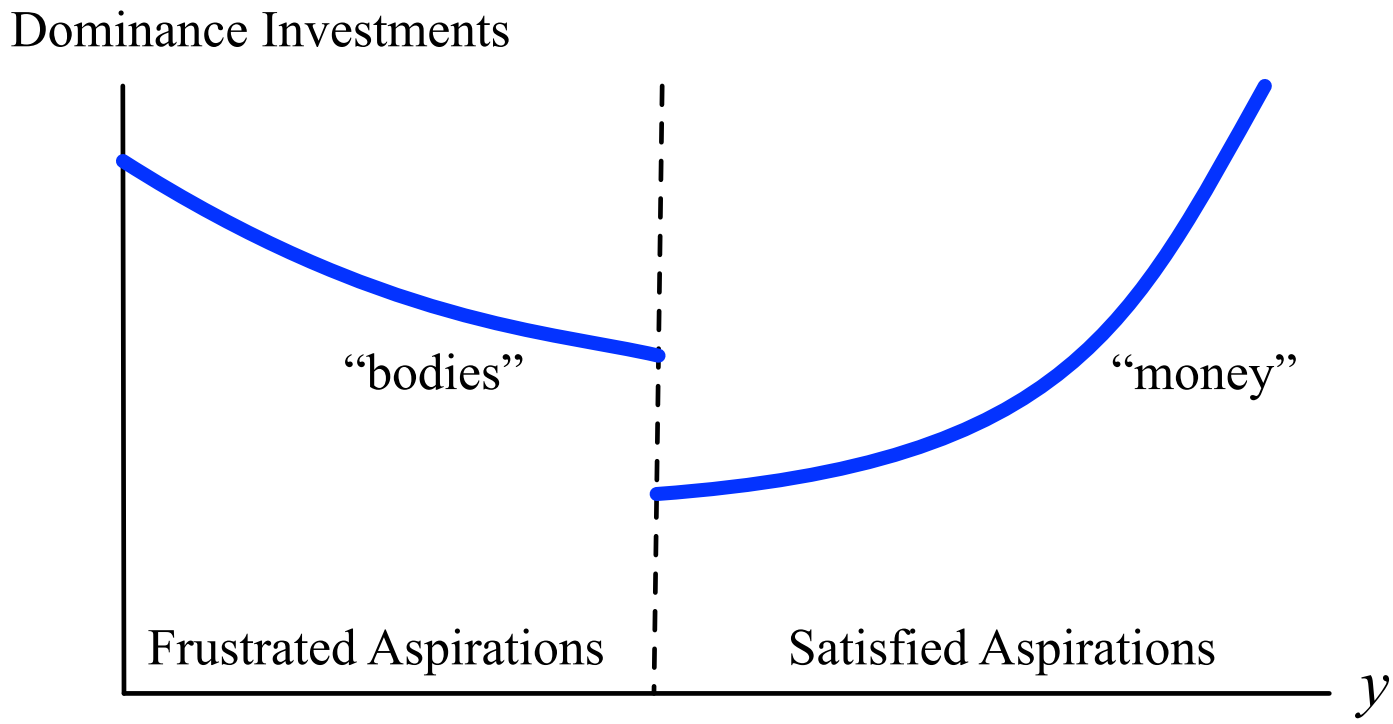

- **Over the income cross-section**, dominance investments initially fall, dropping discontinuously as aspirations switch from failure to success; then rise again.
- With high economic inequality, **aggregate** dominance investments rise.

A Contrasting Approach

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  - The “shocks $\Rightarrow$ identity-priming” view Bonomi-Gennaioli-Tabellini 2021
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- The "shocks $\Rightarrow$ identity-priming" view Bonomi-Gennaioli-Tabellini 2021
- The "inequality $\Rightarrow$ secondary goals" view just discussed
- To some extent these are complementary
- To some extent inconsistent, if one places testable restrictions:

  such as the reaction to widening inequality

Ongoing Research: Distribution and Mobility

Esteban, Genicot, Mayoral, Ray (in preparation)

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- **Distribution and mobility:**
  - Positive connections between current distribution and future mobility:
    - Mechanical mean reversion: High current inequalities might flip course.
    - Classical convergence: Higher marginal returns to those poorer.

Ongoing Research: Distribution and Mobility

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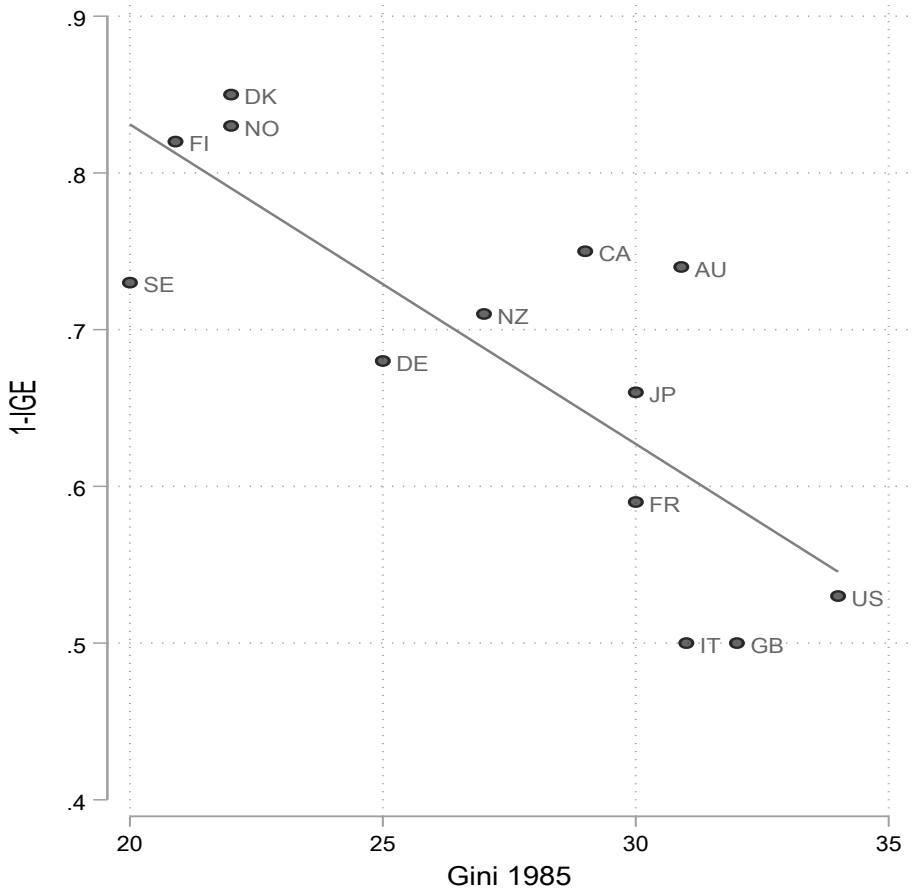
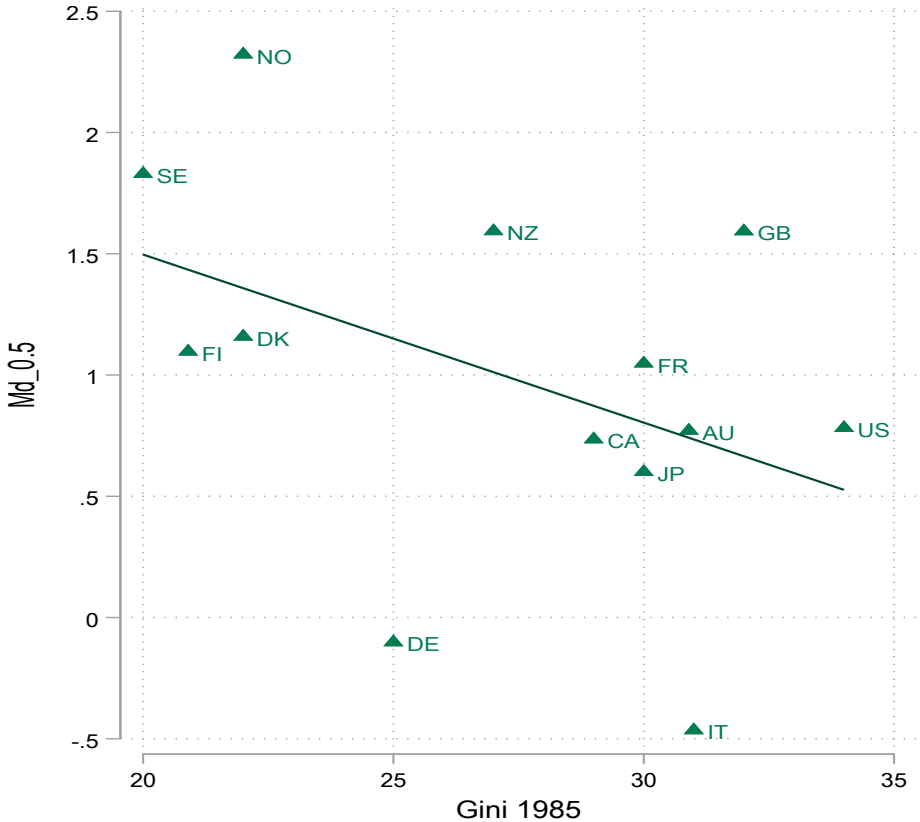
- **Distribution and mobility:**
- Positive connections between current distribution and future mobility:
  - Mechanical mean reversion: High current inequalities might flip course.
  - Classical convergence: Higher marginal returns to those poorer.
- Negative connections between current distribution and future mobility:
  - Classical poverty traps: missing credit markets, nonconvexities.
  - Psychological traps: a failure of aspirations.

The Great Gatsby Curve

- **High inequality is empirically correlated with low mobility** Krueger (2012)



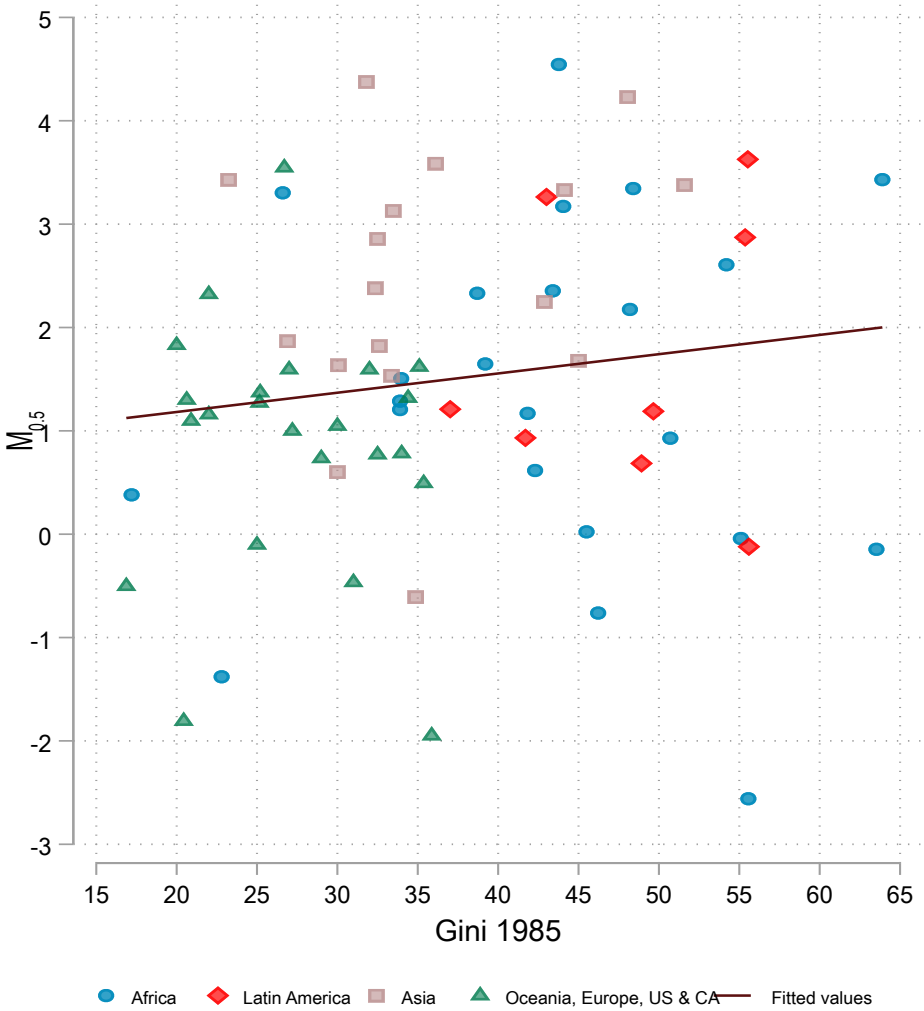


Using $(1 - \text{IGE})$; Krueger (2012) / Corak (2013)

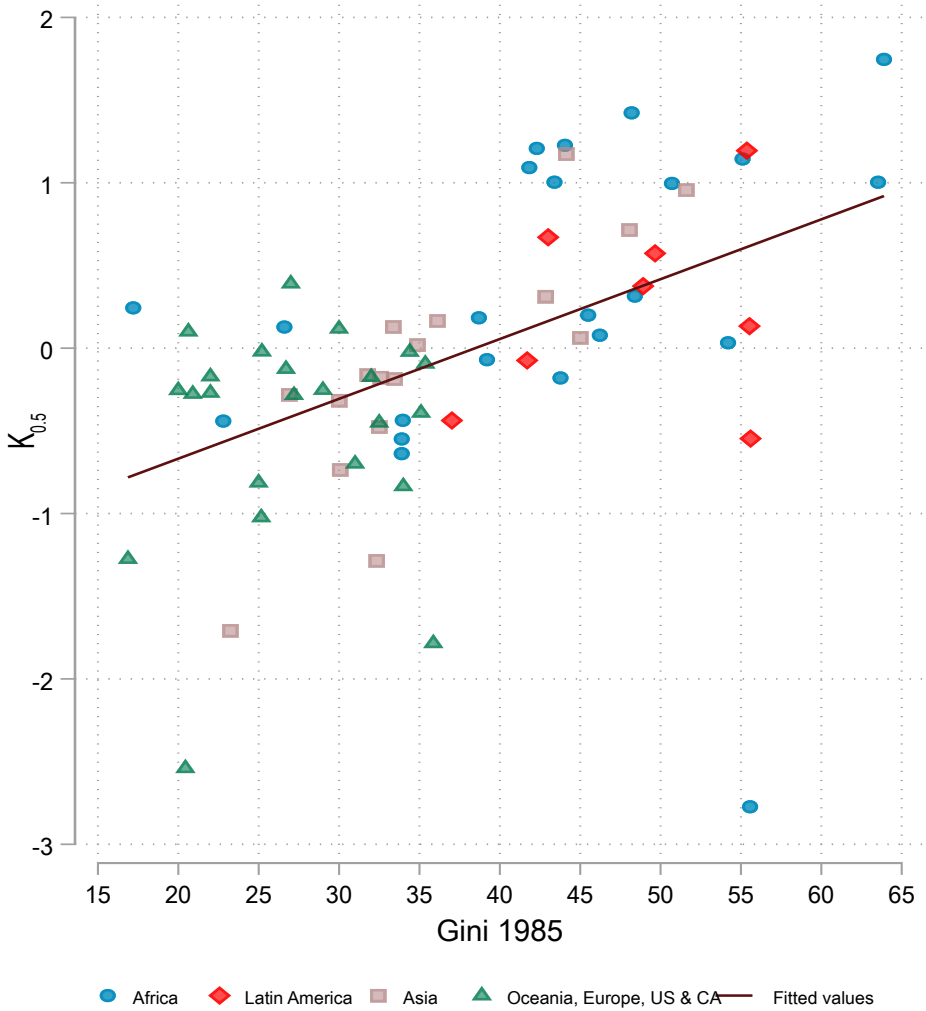
Using $M^{\Delta}_{\omega=0.5}$; Ray ⓡ Genicot (2022)

The Great Gatsby Curve

- **Or Is It?** 86 countries (WID); 1985-2015: Genicot ⓡ Ray ⓡ Concha-Arriagada



Absolute mobility$_{\omega=0.5}$



Relative mobility$_{\omega=0.5}$

The Great Gatsby Curve

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  - Initial distributions map into growth incidence curves in all models
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The Great Gatsby Curve

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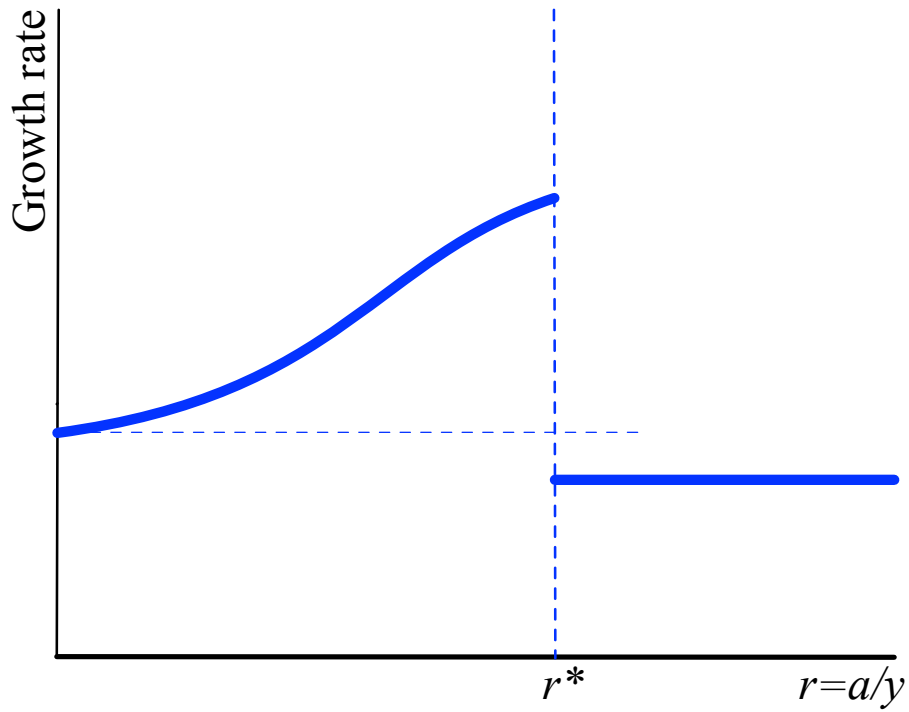
  - Initial distributions map into growth incidence curves in all models
  - The aspirations model has a particular signature
  - The **aspirations ratio** a/y governs the growth rates at any income

Genicot and Ray (2017, Proposition 3).



The Great Gatsby Curve

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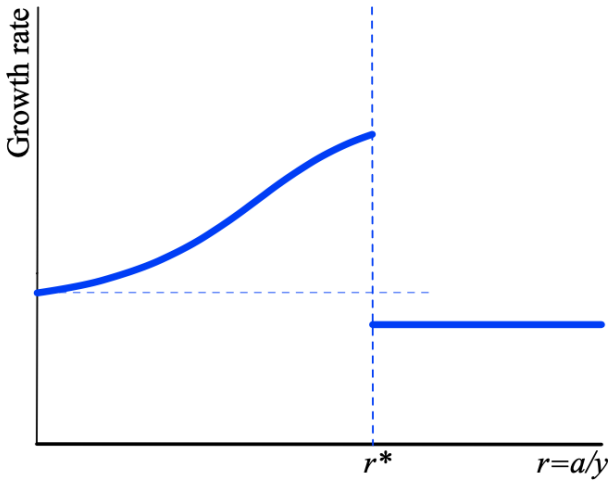

+

Scale-invariance:

$$a(\lambda y, F^{\lambda}) = \lambda a(y, F) \text{ for } \lambda > 0.$$

Social monotonicity:

$$a(y, F') \geq a(y, F) \text{ if } F' \succ_{\text{FOSD}} F.$$

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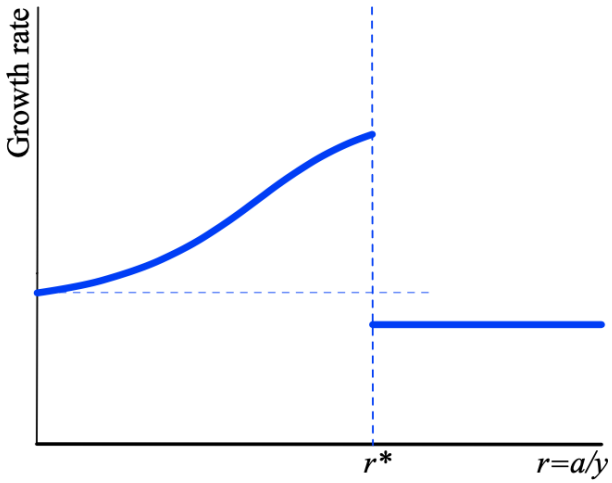

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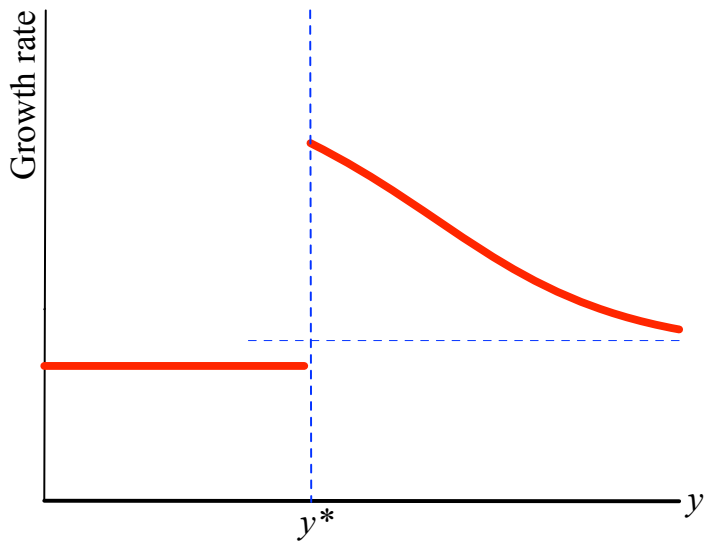

Genicot and Ray (2017, Proposition 4)

The Great Gatsby Curve

- **Aspirations and mobility:**

- This exercise predicts a **negative relationship** between

  - **Polarized distributions** as in Esteban and Ray (1994) and Duclos, Esteban and Ray (2004)

$$P_\alpha(f) = \mu^{\alpha-1} \int \int f(x)^{1+\alpha} f(y)|y-x|dydx,$$

  - and **relative mobility** as defined in Ray ⓡ Genicot (2022)

$$R_\omega(s,t)) = \frac{1}{t-s}\left\{\ln\left[\sum_i \left(\frac{y_i(t)}{\mu(t)}\right)^{-\omega}\right]^{-\frac{1}{\omega}} - \ln\left[\sum_i \left(\frac{y_i(s)}{\mu(s)}\right)^{-\omega}\right]^{-\frac{1}{\omega}}\right\}.$$

where $\mu =$ mean income and α and ω are 1-dim parameterizations of P_α and R_ω.

Modified Great Gatsby

	Dependent Variable: $R_{0.5}$							
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Pol ($\alpha = 2$)	-2.393	-11.758*	-24.801	-45.619*				
	(0.671)	(0.078)	(0.227)	(0.056)				
Pol ($\alpha = 1$)					6.413	-19.098	-14.559	-105.998*
					(0.230)	(0.207)	(0.686)	(0.079)
Gini (LIS)		4.812**		31.792*		8.352*		52.311*
		(0.015)		(0.095)		(0.074)		(0.063)
c	0.405	0.141	3.060	-2.618	-1.053	0.610	2.102	2.413
	(0.620)	(0.859)	(0.268)	(0.539)	(0.263)	(0.639)	(0.707)	(0.653)
R^2	0.003	0.092	0.594	0.633	0.022	0.070	0.575	0.625
Obs	67	67	67	67	67	67	67	67
CFE			✓	✓			✓	✓

CFE = country fixed effects, p-values in parentheses.

Summary

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  - connections to social conflict
  - socio-economic mobility

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- **An entire research program can be built around the aspirations framework:**
- We've discussed here:
  - aspirations failures and psychological poverty traps
  - connections to social conflict
  - socio-economic mobility
- Other topics include:
  - co-evolution of growth and inequality (Bogliacino and Ortoleva 2016, Genicot and Ray 2017)
  - the impact of segregation on incentives (Mookherjee, Napel and Ray 2008)
  - risk-taking, doubling-down under bad shocks (Genicot and Ray 2020)
  - Optimal goal-setting (Schwenkenberg 2010, Besley 2017, Mohammadi 2022)
  - aspirations and policy (Kearney 2016, Goux 2017, La Ferrara 2019)
  - self-esteem (Parsa and Ray, in prep.)