Discussion of

Time-varying Risk Premium and Unemployment Risk Across Age Groups

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European Finance Conference | August 2018

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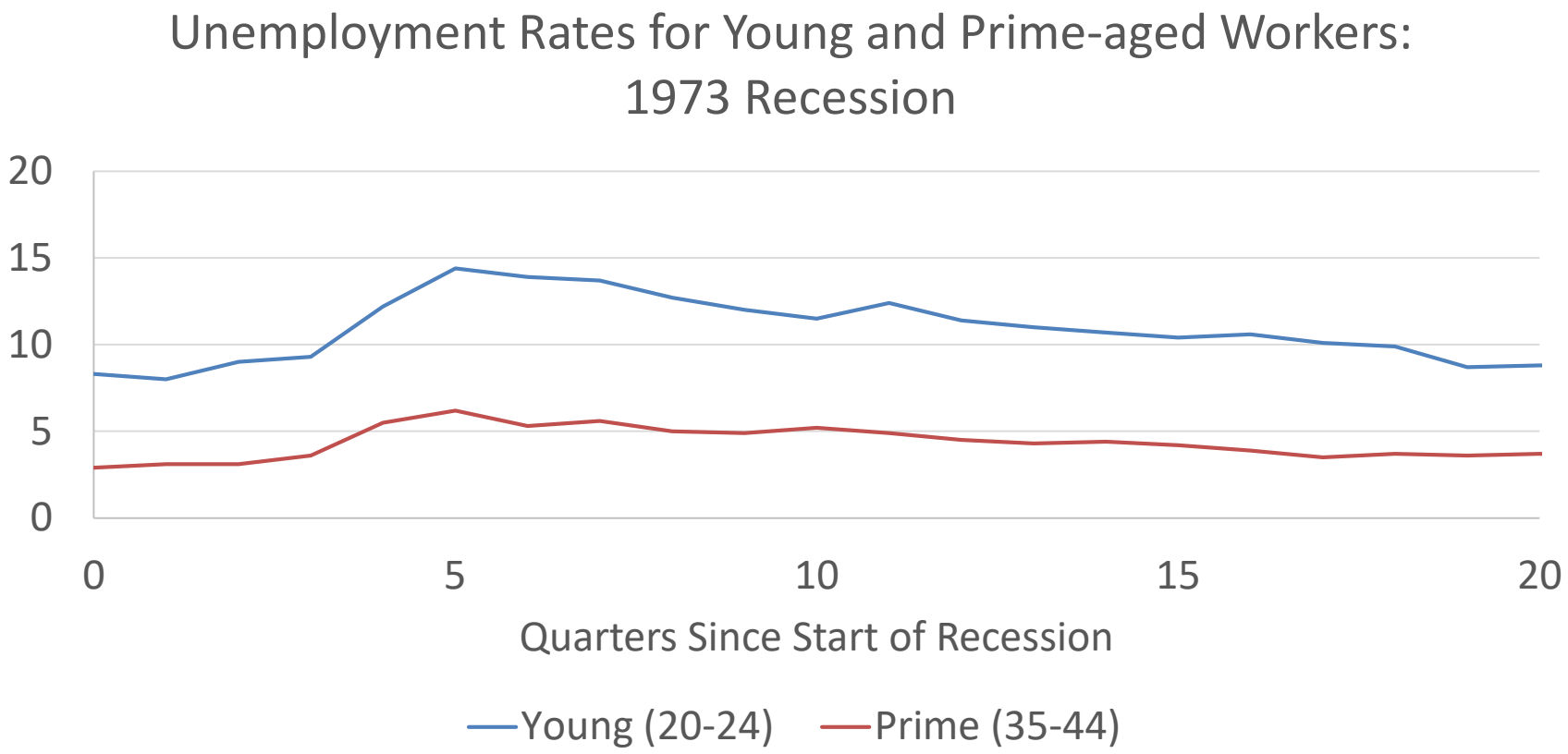
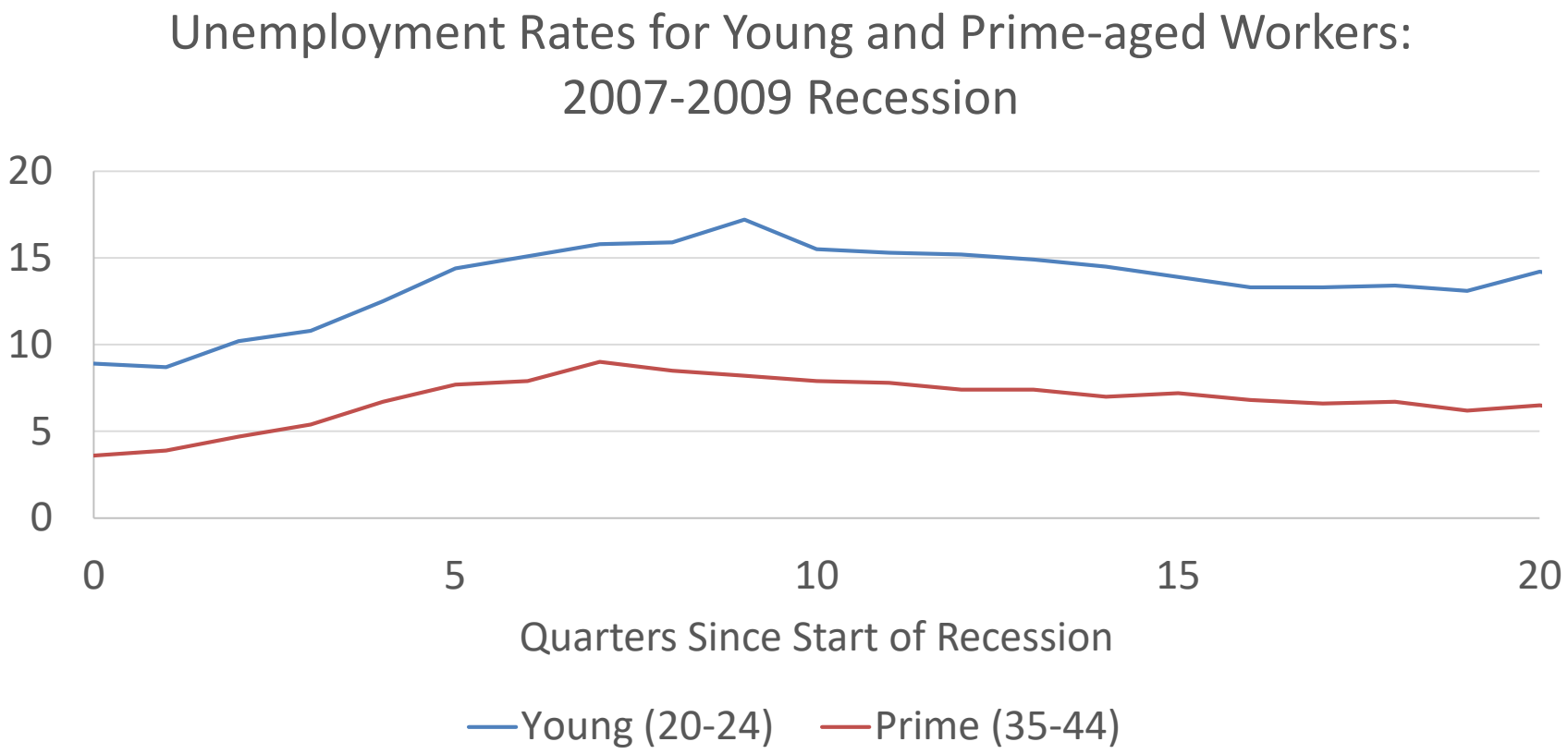
Overview

- I really like this paper!
  - Simple mechanism to explain complex labor market dynamics
- Plan for the discussion
  - Reformulate the motivation for this paper
  - Review the mechanism
  - A few comments

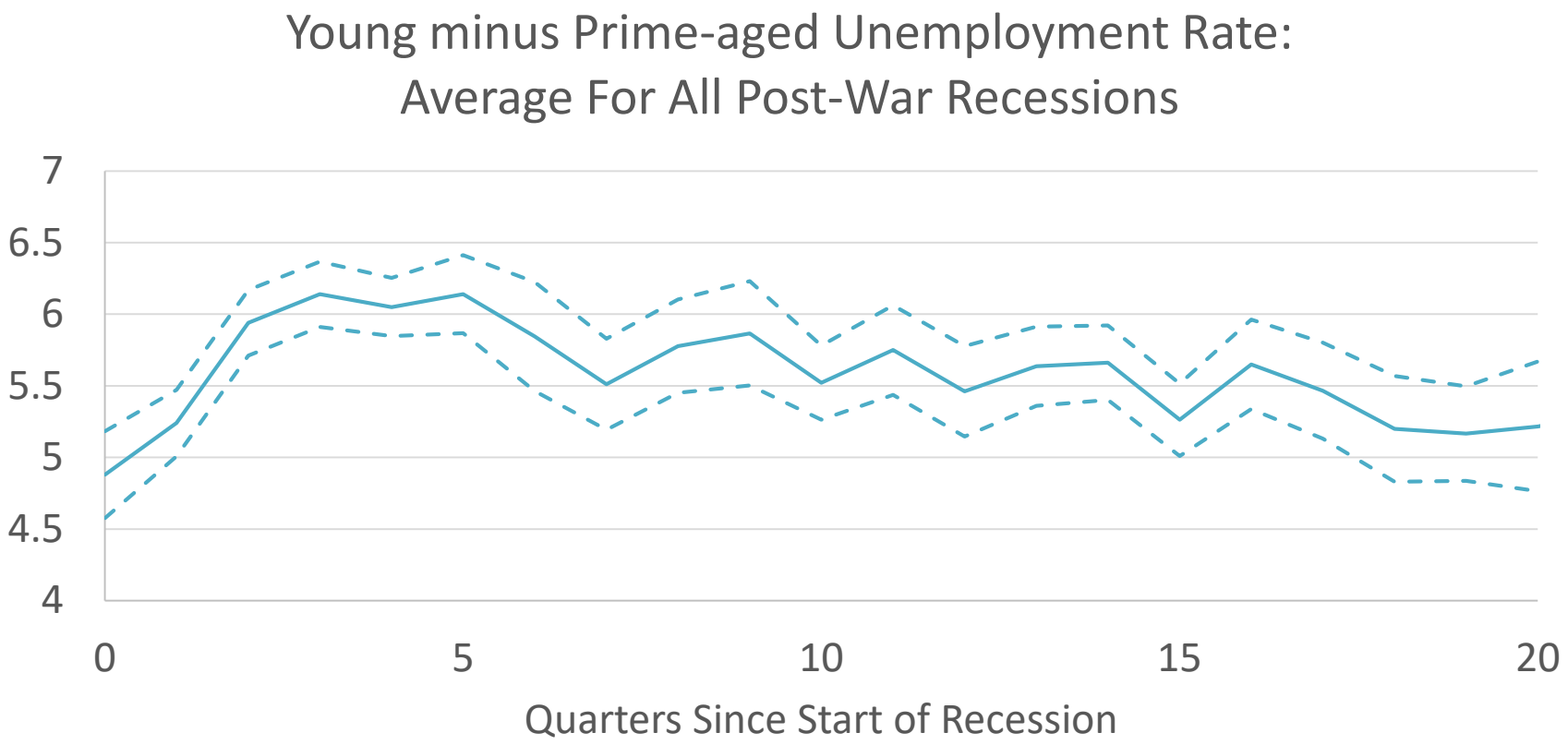
Recessions Hit Young Workers Harder.. then



Recessions Hit Young Workers Harder… and now



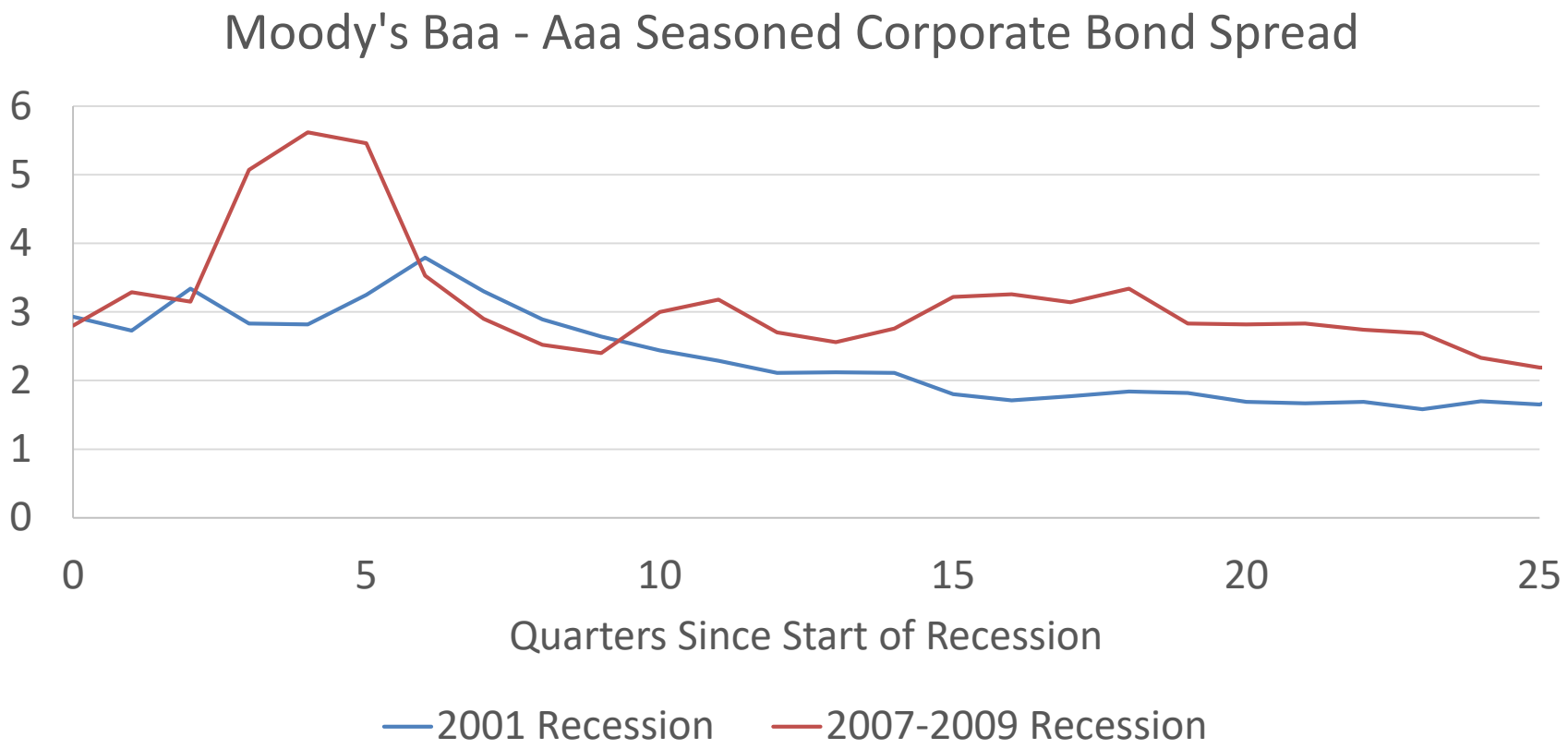
Pattern is consistent…



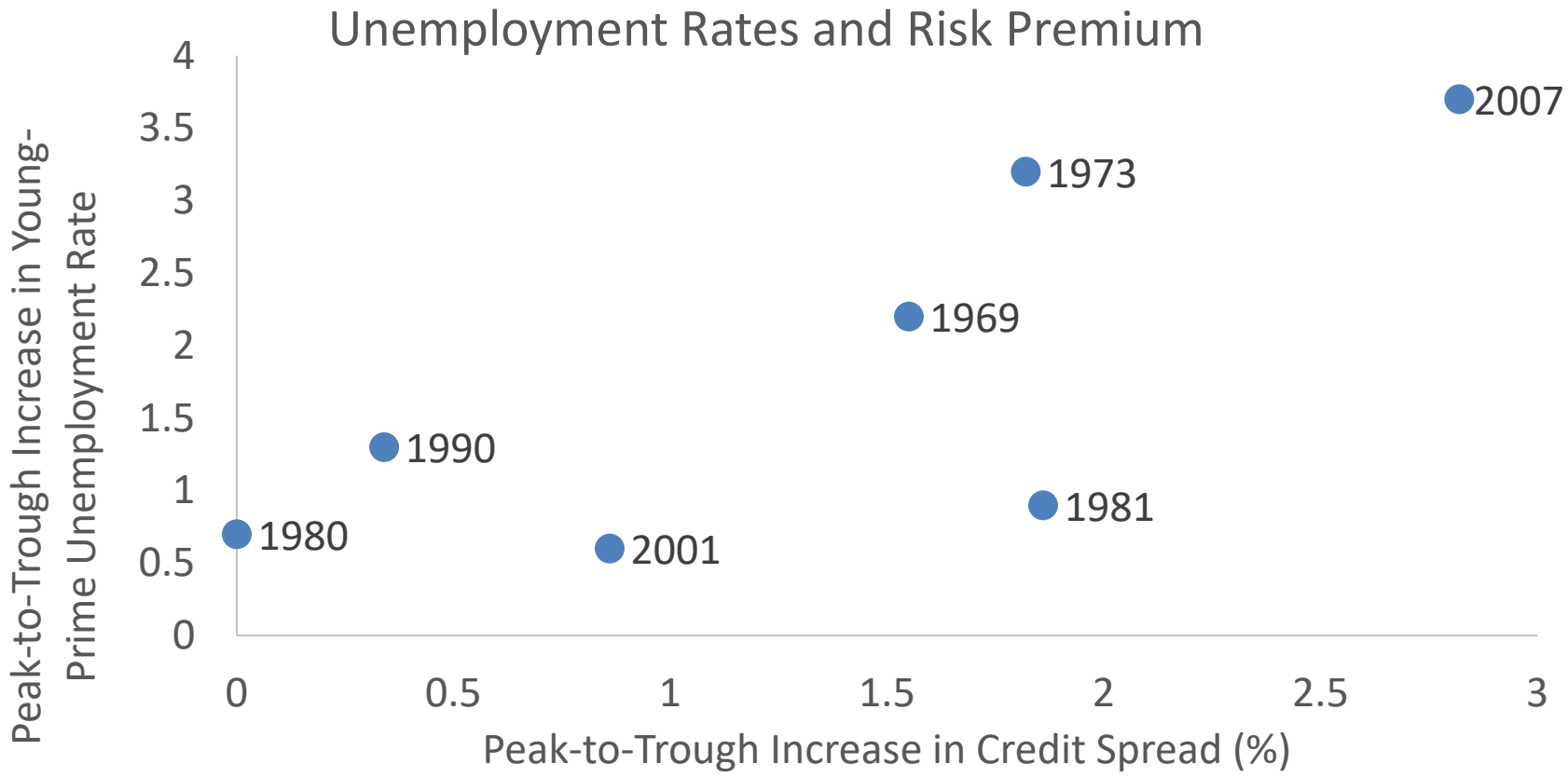
Or is it?


Young minus Prime-aged Unemployement Rate:
Difference from pre-Recession Level
4
3
2
1
0
-1
0
5
10
15
20
25
Quarters Since Start of Recession
2001 Recession
2007-2009 Recession

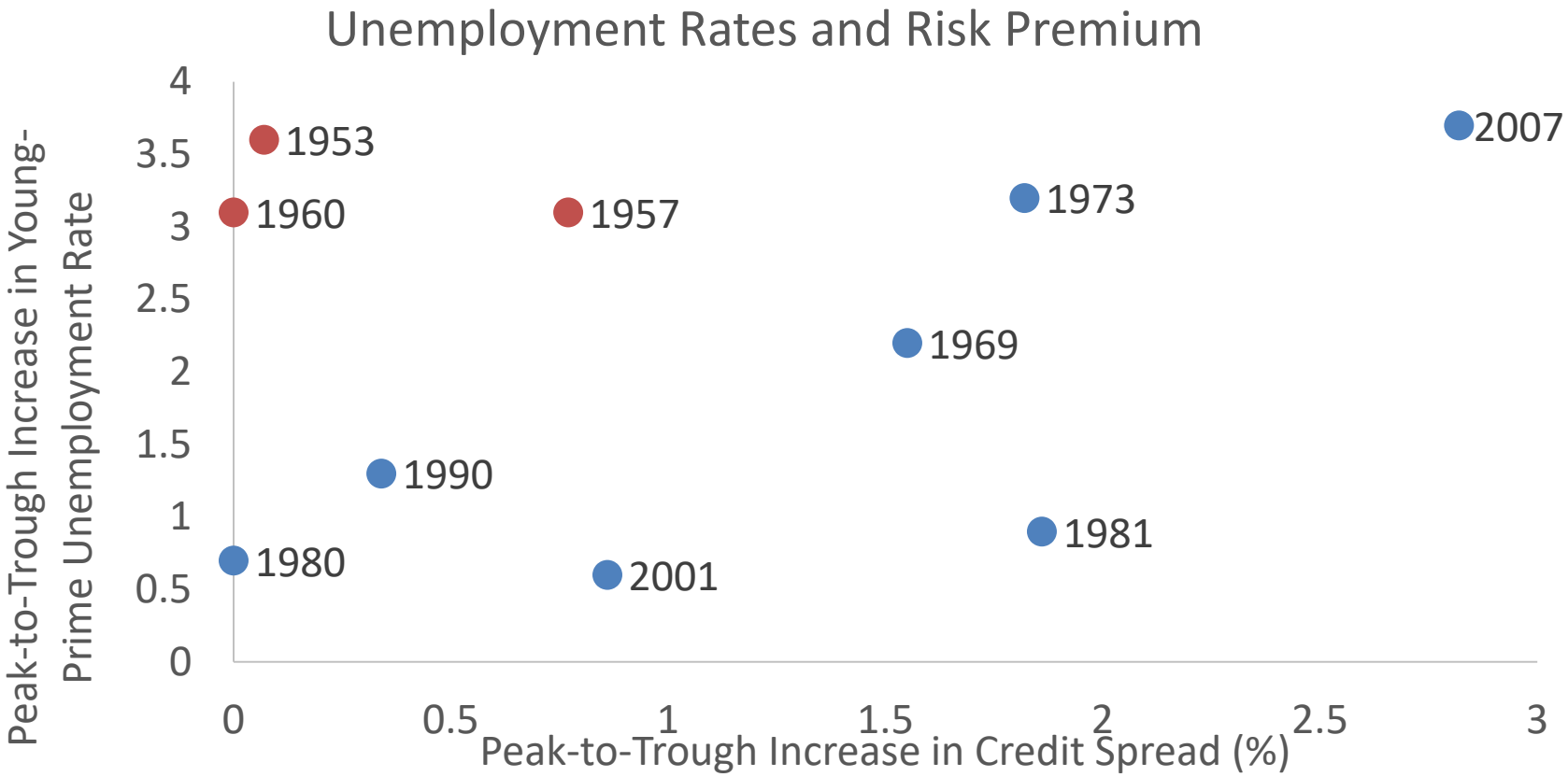
Potential Channel: Risk Premium



Does it hold for other recessions? Yes



Does it hold for other recessions? Recently



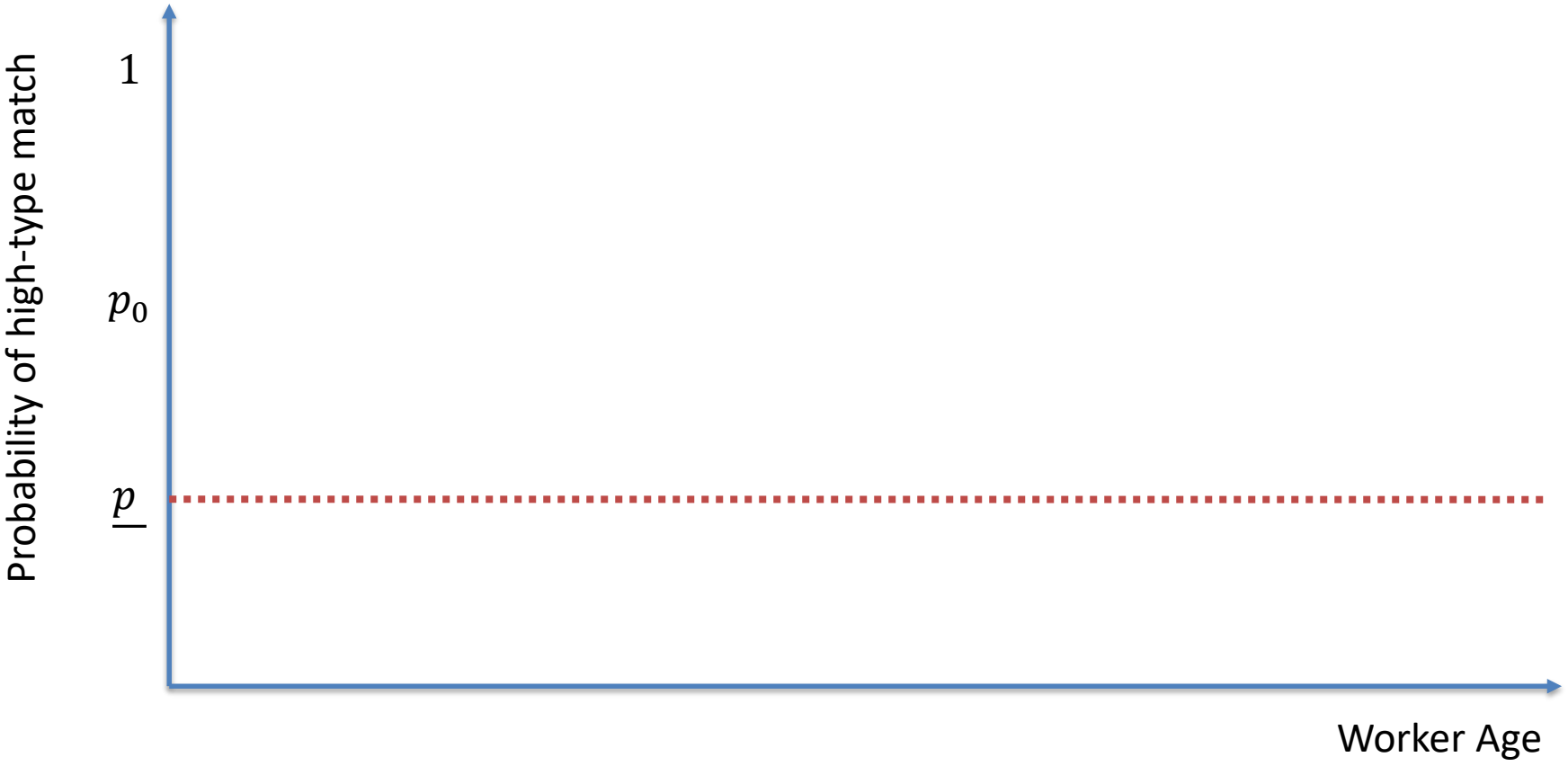
This paper

- Builds a model that explains
  - Higher young worker unemployment (**diff**)
  - Higher sensitivity of young worker unemployment to aggregate productivity shocks (**diff-in-diff**)
  - Increase in that sensitivity when risk premium is high (**triple diff**!)

Ingredients

- Standard DMP Search Model
- + Match quality is unobservable
  - Bayesian learning
- + Firm owners are risk-averse
  - Use reduced-form SDF with time varying price of risk to price value of worker-firm matches

Intuition: No Aggregate Shocks



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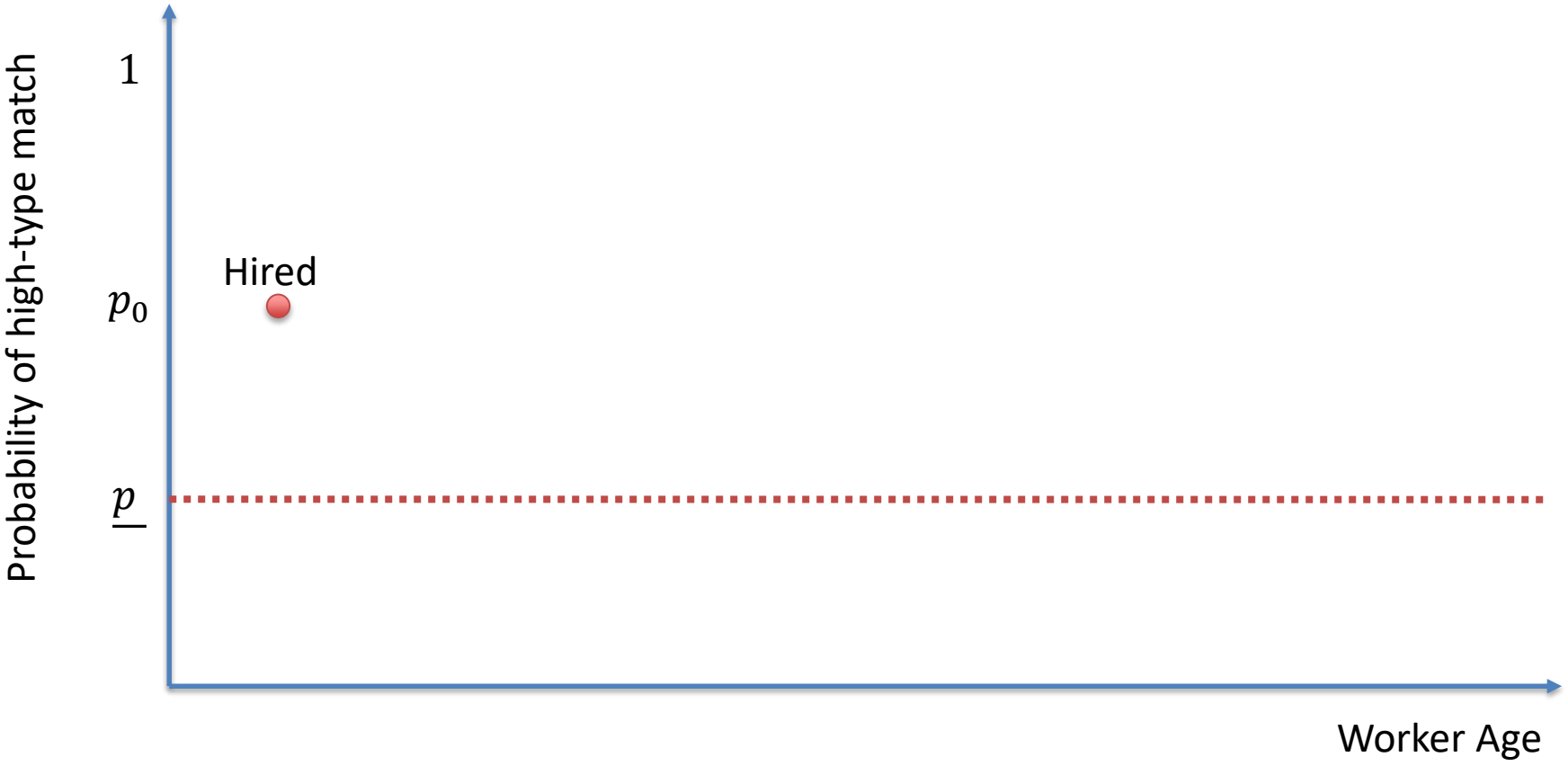

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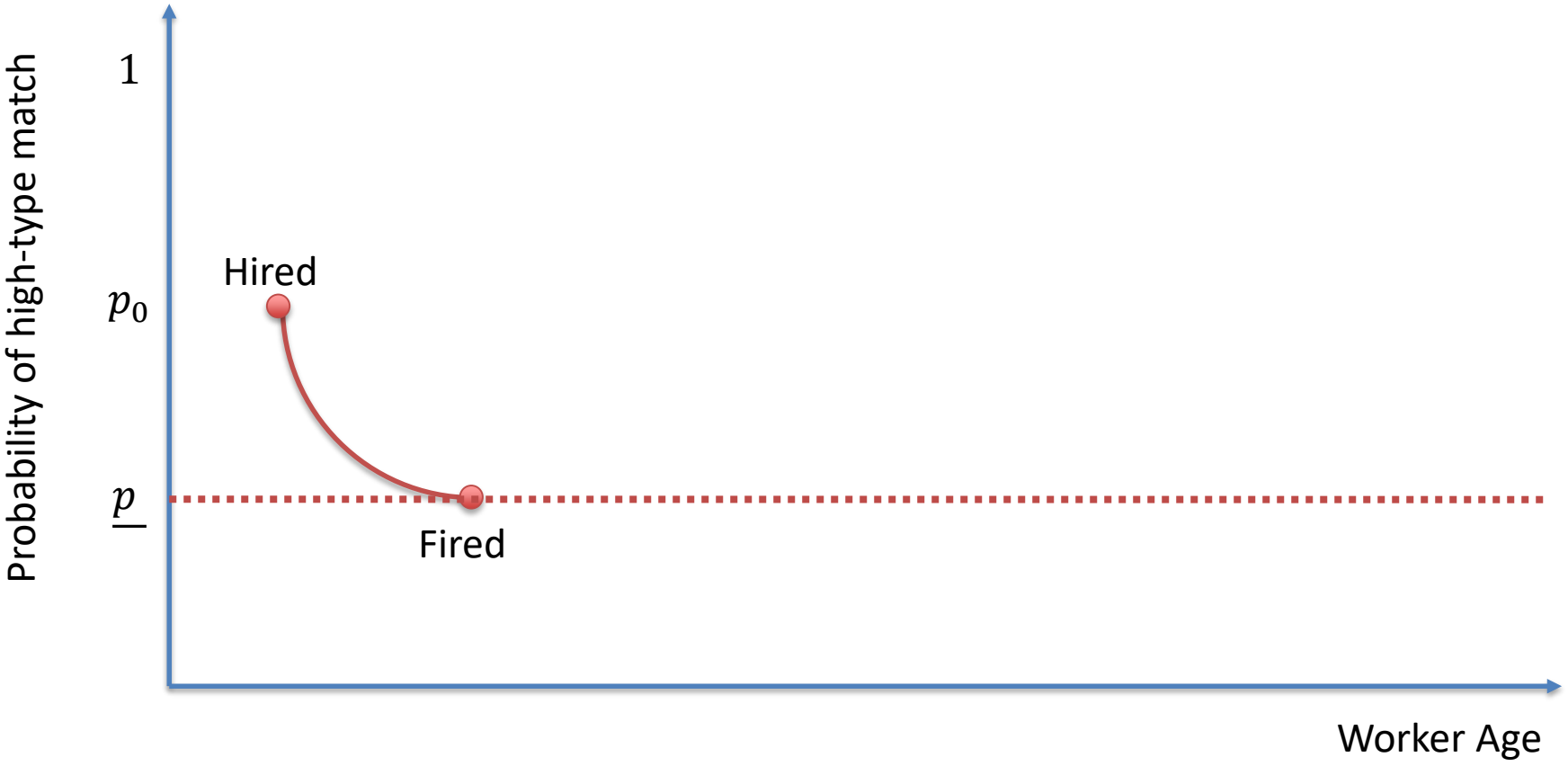

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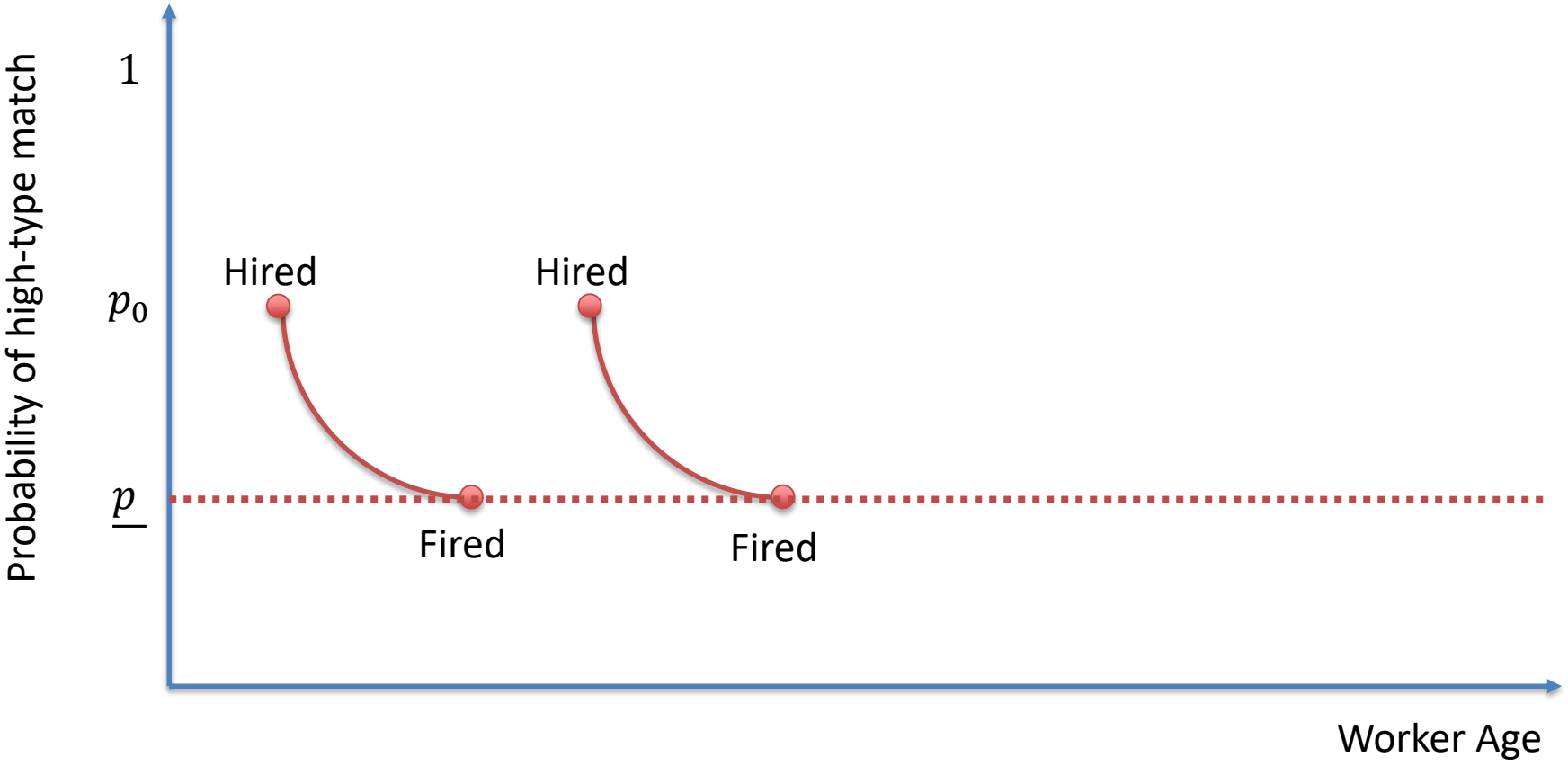

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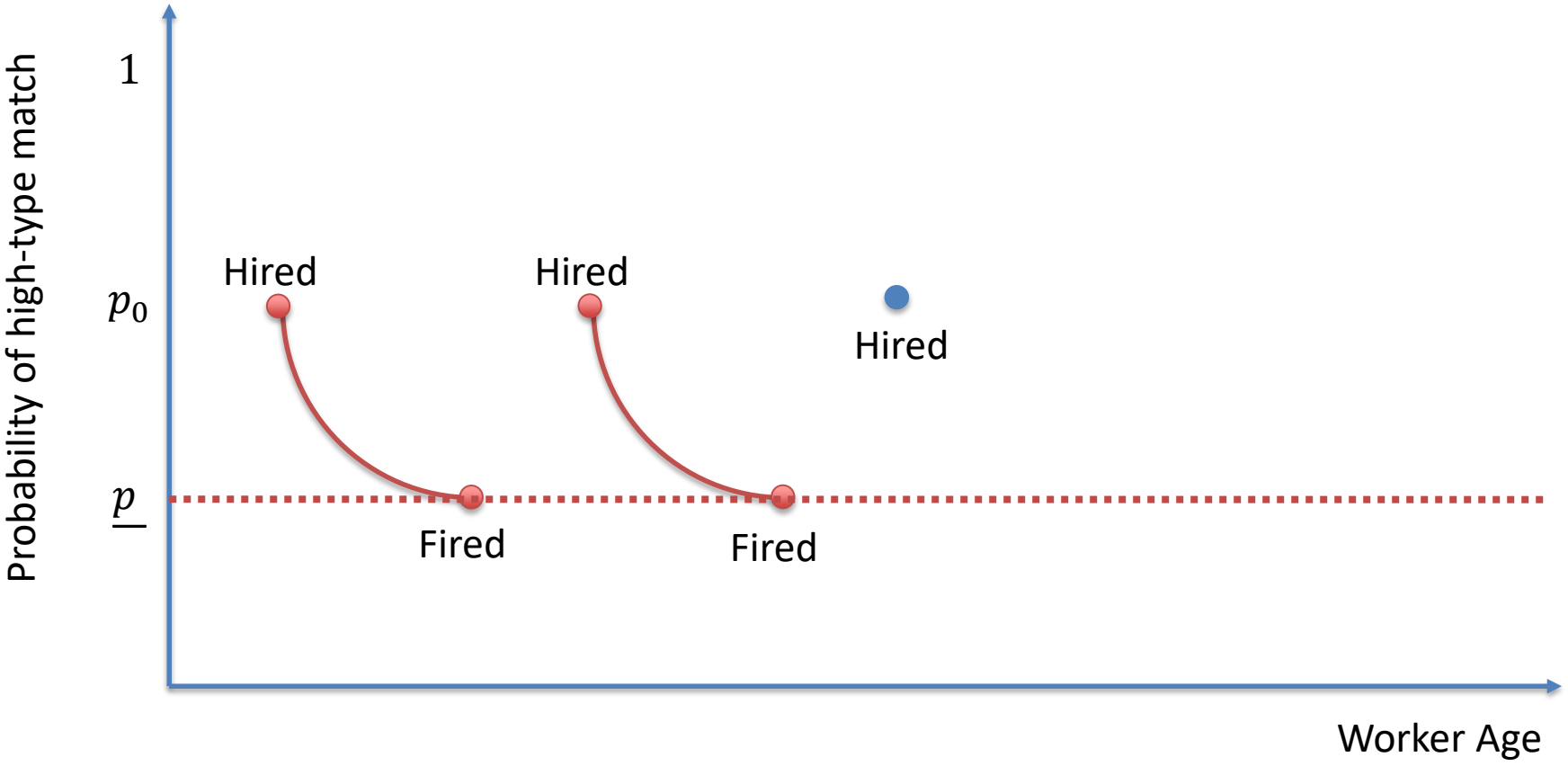

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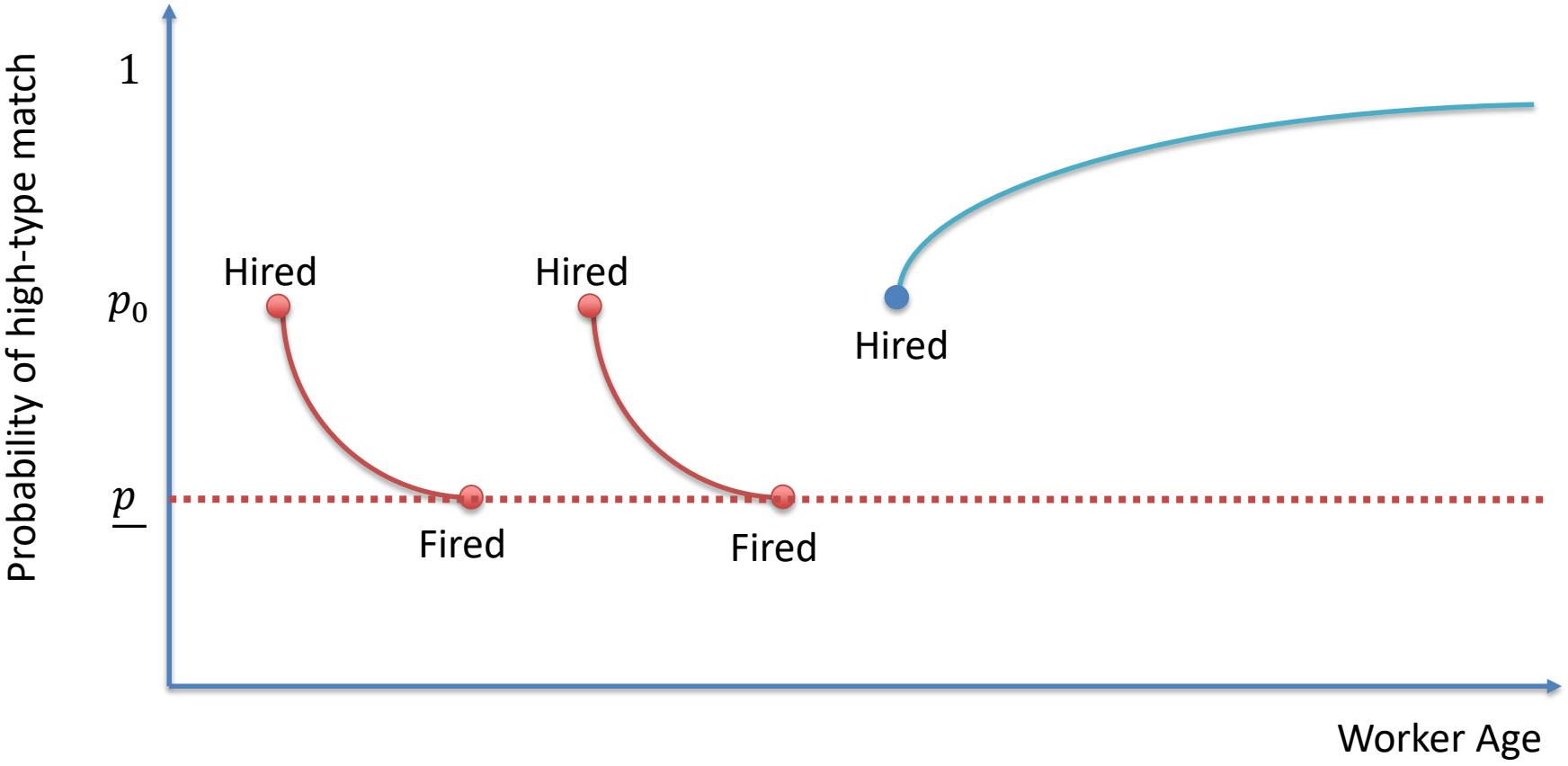
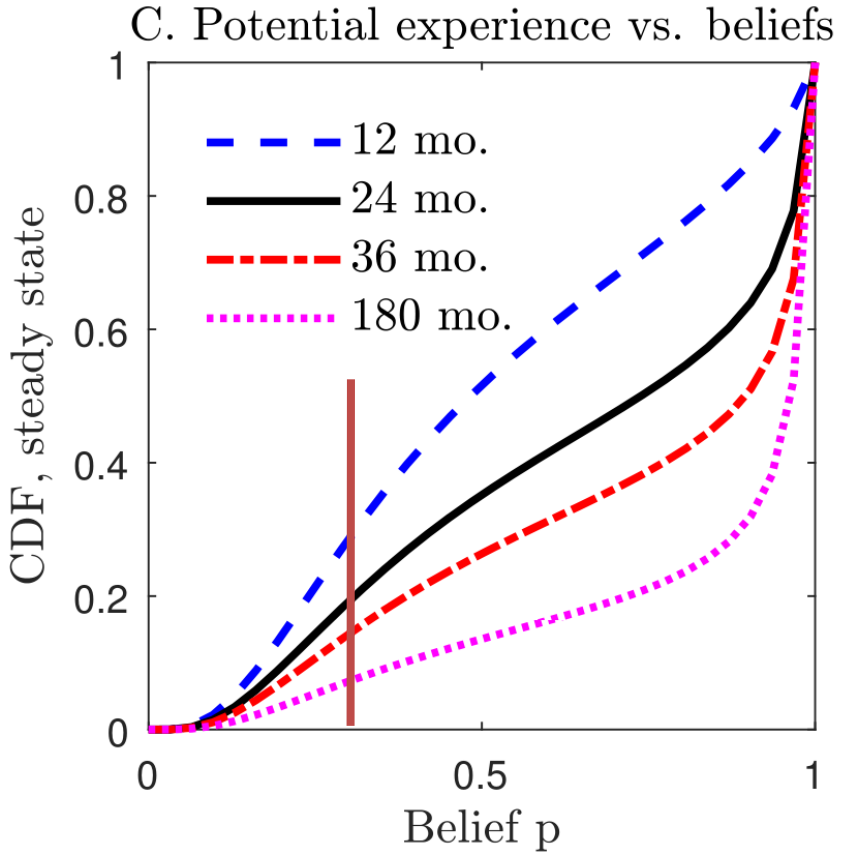


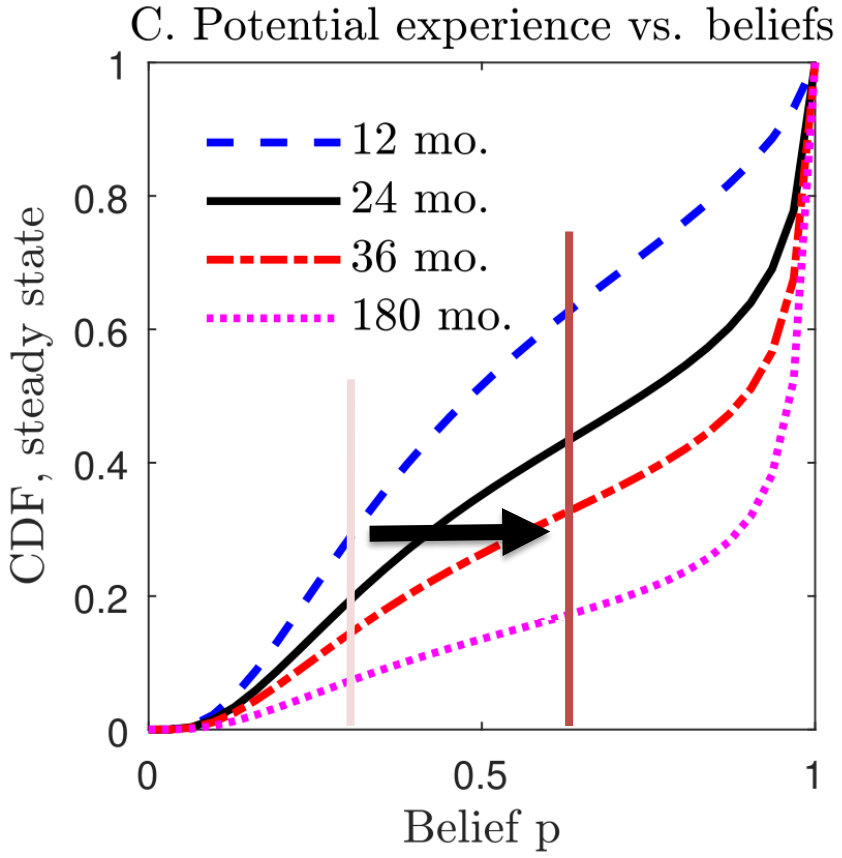
Older Workers More Likely to Be in a Good Match



Aggregate Shocks: Mechanism

Negative labor productivity shock

- Worker can produce less
- Unemployment benefit unchanged
- Surplus goes down
- Threshold belief goes up
- Mostly young around threshold, so young most affected



Risk Premium: $\underline{p}$'s beta

- When risk premium is high, match threshold $\underline{p}$ responds more strongly to labor productivity shocks
  - Quantity of risk is high
    - E.g. Cross section
    - Authors find young/prime share more cyclical in higher beta industries
  - Price of risk is high
    - E.g. Time series
    - Authors find young-prime rate loads on labor productivity more when dividend/price ratios are higher

Comment 1: Job Finding Rates

- Why are young more likely to be unemployed?
  - Young start out unemployed
  - Young are less likely to get hired
  - Young are more likely to get fired

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  - ~~Young are less likely to get hired~~
  - **Young are more likely to get fired**
- This paper: all workers observationally identical at time of hiring

Comment 1: Job Finding Rates

- This paper: same hiring rate across ages
  - May not be true in the data
- Authors do simulation exercise
  - Eyeball results: this assumption causes them to miss level but not cyclicality
- Simpler and more direct test
  - Take sample of unemployed workers at time t
  - Regress employment status at t+1 on a business cycle variable, age variable, and interaction
  - Hypothesis consistent with the model: interaction = 0

Holds for prime-aged workers (but not anyone older!)

```
. reg still_unemployed lagUSREC##i.agebucket2 [aweight=asecwt]
(sum of wgt is   5.5556e+07)
```

Source	SS	df	MS
Model	45.722873	9	5.08031922
Residual	5671.9339	30032	.188863009
Total	5717.65677	30041	.190328443

Number of obs	= 30042
F(9, 30032)	= 26.90
Prob > F	= 0.0000
R-squared	= 0.0080
Adj R-squared	= 0.0077
Root MSE	= .43458

still_unemployed	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lagUSREC						
Recession	.0710607	.0204084	3.48	0.000	.0310593	.1110621
agebucket2						
25-34	.0323355	.0088689	3.65	0.000	.0149521	.0497189
35-44	.0475392	.0089495	5.31	0.000	.0299977	.0650807
45-54	.0498224	.0090548	5.50	0.000	.0320747	.0675701
55+	.049784	.0097764	5.09	0.000	.0306218	.0689463
lagUSREC#agebucket2						
Recession#25-34	.0076467	.0255412	0.30	0.765	-.0424152	.0577085
Recession#35-44	.0087149	.0259654	0.34	0.737	-.0421784	.0596081
Recession#45-54	.0648587	.0259983	2.49	0.013	.0139009	.1158165
Recession#55+	.0571538	.0276948	2.06	0.039	.0028708	.1114368
_cons	.205671	.0070299	29.26	0.000	.1918921	.2194499

Comment 2: ~~CX~~ Panel Evidence

- In recessions, ratio of young to prime-aged workers falls more in high-beta than low-beta industries
  - Interpretation: young minus prime-aged unemployment rate is more cyclical in high-beta industries
  - But what is an industry-specific unemployment rate?

Comment 2: ~~CX~~ Panel Evidence

- In recessions, ratio of young to prime-aged workers falls more in high-beta than low-beta industries
  - Interpretation: young minus prime-aged unemployment rate is more cyclical in high-beta industries
  - But what is an industry-specific unemployment rate?
- Alternative story: all workers want/must leave a collapsing industry, but
  - Young workers are just more mobile
    - Geographically (and sectors correlate with geography)
    - Have fewer sector-specific skills
  - Hard to disentangle / model with sector mobility less tractable
    - But use J2J data from LHED to see how big of a problem this is?

Comment 3: Filtering

- All time series are HP-filtered. Why?
  - Stationarity: many series already stationary
  - Extract business cycle frequencies and dump everything else: but low-frequency variation in risk premia is
    - Most of it
    - Creates heterogeneity in risk premia across productivity shock episodes – main point of the paper!

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- Don't torture data as much: just look at peak-to-trough changes (like I did earlier)
- If you must filter, use Hamilton (2017) filter instead esp. in regressions
  - Regressing HP-filtered Y_{t+1} on HP-filtered X_t introduces spurious correlation

Comment 4: Measuring risk premium

- This paper: seasonally-adjusted HP-filtered dividend/price ratio imputed from CRSP indices
- Alternative: Baa-Aaa Corporate spread
  - No need to adjust for seasonality
  - Relative stability in historical default rates suggests less cash flow news in spreads than D/P ratio → more "pure" measure of discount rate news