Employment and its impact on life satisfaction through lens of risk and time preferences

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Employment and
its impact on life
satisfaction
through lens of
risk and time
preferences

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Existing evidence

Hypotheses

Data

Modeling strategy

Outline

The current project is an attempt to investigate an impact of risk and time preferences on labour market outcomes, in particular, employment status, reservation wage, and match between actual and requested-on-job education levels.

Secondly, it should address how these conditions translate into the subjective satisfaction level reported.

- ▶ Existing evidence
  - ▶ Risk preferences
  - ▶ Life satisfaction

- ▶ Project proposal
  - ▶ Data: STEP dataset
  - ▶ Variables of interest
  - ▶ Modeling strategy

...Short reminder on risk preferences

(Risk-neutral) decision-maker bases his/her decisions on the criterion of maximizing the expected value of monetary income, or the expected level of utility of outcome.

Example: either 20 or 0, each with probability $1/2$.
Expected monetary value $= 10$

Risk-neutral: exchange ticket for at least 10

Risk-averse: exchange ticket for less than 10

Meaningful measures of risk attitudes (mapping into actual choices in real lotteries) can be generated from simple survey measure, lottery, and hypothetical investment questions (e.g. Dohmen et al, 2005, 2011)

Risk preferences and labour market outcomes - I

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Individual risk preferences translate not only into lottery-relevant decisions...

Given *uncertainty* regarding availability of suitable jobs, **individual risk attitudes** and time preferences (patience) may help to understand and predict **economic behaviour**, in particular, labour market outcomes (e.g. Kihlstrom and Laffont, 1979; Bertrand, 2011)

Differences in willingness to take risks depending on gender, age, height, and parental background (e.g. Dohmen et al, 2011; Nelson, 2014).

Risk preferences and labour market outcomes - II

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Higher risk aversion (risk intolerance) is associated with:

- ▶ less likely entrance to the labour force; shorter unemployment duration (Vesterlund, 1997)

- ▶ with lower reservation wages (basically, accepting every job offer) (Cox and Oaxaca, 1992; Pannenberg, 2007, s2010)

- ▶ selection into occupations with more stable - often also with lower - earnings (Bonin et al, 2007; Luechinger et al, 2010)

- ▶ higher dispersion of occupational choices especially towards low-paid jobs (Selezneva and Van Kerm, 2013)

- ▶ negative attitude towards/engagement into self-employment in the EU (Ekelund et al., 2005; Fossen, 2011; Verheul et al, 2012; Caliendo et al, 2014)

Life satisfaction (Subjective well-being)

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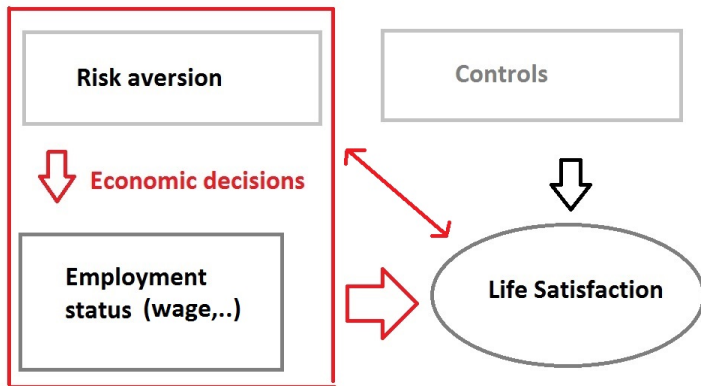
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- ▶ life as a whole; summarizes the experiences of a person in different life domains, see reviews in Layard (2005), Di Tella et al (2006)
- ▶ robust negative effect of unemployment (Clark, 2003; Stutzer and Lalive, 2004; Luechinger et al, 2010)
- ▶ aggregate effect of work is positive (Rätzel, 2012)
- ▶ skills mismatch matters for job satisfaction (Vieira, 2005; review in Ergodan et al, 2011)
- ▶ over-education (skill-based underemployment) is usually involuntary, thus lower life satisfaction (Verhaest and Omey, 2009)

Strength and direction of an impact of a factor can be modified, among all, by labour market institutions; level of uncertainty, personal and in a society

Risk preferences and subjective well-being

- risky behaiour of students is associated with low levels of life satisfaction (Valois et al, 2002)

- people in positive affective state report higher subjective probabilities for positive events and lower subjective probabilities for negative events (Moore and Chater, 2003)

- (rare study) on causal effect from SWB on Risky behaviour (Guven and Hoxha, *forthcoming*): happier people are more risk-averse both in financial decisions and in general life decisions. Happy people are more likely to have life insurance, savings accounts, and operating assets. Happier people choose safer investments

- !NB. Evidence for low- and middle-countries is scarce

Summarizing..

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Hypothesis 1: More Risk-averse individuals are more likely to report a lower *reservation wages* (other human capital characteristics being controlled for).

Hypothesis 2: More Risk-averse individuals are more likely to report a (perceived) *mismatch* between their education and characteristics of a job.

Hypothesis 3: More Risk-averse individuals are more likely to report lower *satisfaction* scores due to being employed.

Data

The Skills Towards Employability and Productivity (STEP) program

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- ▶ launched in October 2010 by the World Bank.
- ▶ cross-sectional study over 2011-2013: Colombia, Vietnam, (Yunnan Province in) China, Sri Lanka, Bolivia, Armenia, Georgia, Ghana.
- ▶ common "core" questionnaire; data comparable across countries
- ▶ representative for urban areas; from 1,196 to 3,405 observations per country
- ▶ household information; individual information for one person aged 15-64 randomly chosen within household
- ▶ data on (1) Cognitive skills, (2) Socio-emotional skills: personality traits, behavior, risk and preferences, (3) Job-relevant skills

Variables of interest

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There are several groups of variables:

- ▶ Individual educational background and labour market (LM) outcome

- ▶ Preferences (risk and time), and some personality traits
- ▶ Subjective well-being measure
- ▶ Household characteristics

Variables of interest: education and LM outcome

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- **Employment status**: employed, unemployed, inactive

- Hours worked; pay received; employment type (self-employed, employee); how the job was found; public/private; contract type; months in current job

- Secondary job

- Previous employment and unemployment experience; strategies of job search

- Highest completed level of formal **education**
- Age left formal education
- Additional vocational/professional certificates

- How useful were your studies for this work?
- The minimum level you think is required to do this job?

Variables of interest: subjective well-being, preferences, and personality traits

- ▶ Overall life satisfaction (1 to 10 scale)

- ▶ *Reservation wage*: What is the lowest monthly net (take-home) wage that you would be willing to accept for a full-time registered job, in this locality or area?

- ▶ No direct question on willingness to take risks!
  - ▶ Three lottery questions $->$ 3 lotteries $->$ possible to approximate individual-level risk-aversion parameters under the assumption of CRRA utilities (Dohmen et al, 2005)
  - ▶ Health insurance; life insurance; BMI

- ▶ Time-preference question $->$ 2 list of choices between an amount of time 'today' and 'in a year'

- ▶ Personality traits (e.g. Hard working, forgiving easily, interested in earning new things, getting nervous easily).

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Variables of interest: individual and household controls

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- ▶ Age
- ▶ Chronic illness
- ▶ Education levels of father and mother
- ▶ Marital status
- ▶ Household size, presence of children

- ▶ Asset Wealth Index (based on ownership of dwelling, car, housekeeping appliances etc..)

- ▶ Region, city

Model specification - I

$$Outcome_{it} = \beta_0 + \beta_1 * PREF_{it} + \theta * X_{it} + \epsilon_{it}$$

$Outcome_{it}$ - personal outcome such as

- reservation wage RW reported (! Heckman selection model)
- usefulness of education; education mismatch M
- level of life satisfaction LS

$PREF$ - risk/time preferences
$OVED$ - over-educated for the current job
vector X_{it} - person-specific variables (age, labour force status, marital and health status, log-income, number of children, gender, household size, asset wealth index; year dummies; state; difficulties to find job)

OLS with clustered robust standard errors (by country/region)

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Model specification - II

$$LS_{it} = \beta_0 + \beta_1 * PREF + \beta_2 * Cond_{it} * PREF_{it} + \theta * X_{it} + \epsilon_{it}$$

$Cond_{it}$ - personal outcome such as

- reservation wage RW reported (! Heckman selection model)
- usefulness of education; education mismatch $OVED$
- employment

$PREF$ - risk/time preferences
vector X_{it} - person-specific variables (age, labour force status, marital and health status, log-income, number of children, gender, household size, asset wealth index; year dummies; state; difficulties to find job)

OLS with clustered robust standard errors (by country/region)

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Big questions.. I need an advise!

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- ▶ Country estimates vs. pooled sample estimates
- ▶ Country-level relevant macro indicators

- ▶ Instrument for risk attitudes?
- ▶ Add Big Five (Conscientiousness, Openness to experience, Neuroticism, Agreeableness, Extraversion) personality traits?
    - ▶ Becker et al. (2012): personality traits and risk preferences are complementary factors in explaining outcomes such as wages, reported health, and education
- ▶ Structural equation modeling?