Job Displacement Insurance in Developing Countries

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BREAD-IGC Virtual PhD course on Social Protection

Job Displacement Insurance in Developing Countries

- Chapter in *The Handbook of Social Protection: Evidence to Inform Policy in Low- and Middle-Income Countries* (Eds.: Rema Hanna and Ben Olken)
- Thanks to Natália Corado, Lorenzo Germinetti, Wuraola Ebunoluwa Afolabi, and undergraduate students from Queen Mary University of London and the Pontifical Catholic University of Rio de Janeiro for data gathering and research assistance.
- See this link for Data details.

Job Displacement Insurance (JDI) Policies

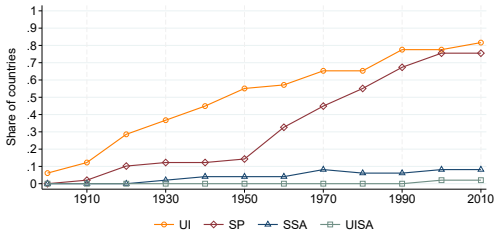
- Government programs aimed at offering financial assistance to workers after job loss
  - Provided directly by governments or mandated through third party (e.g., employers)

- Types of Job Displacement Insurance Policies (Parsons, WP 2016)

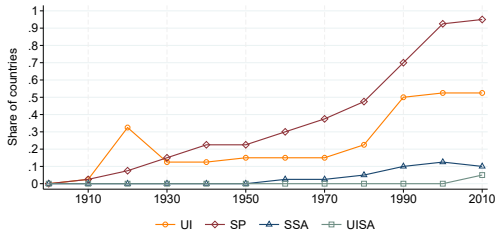
Scheme	**Payout**	**Financing**
Unemployment Insurance (UI)	State-contingent	Insurance
(Gov. mandated) **Severance Pay (SP)**	Lump-sum	Insurance
Severance Savings Account (SSA)	Lump-sum	Forced savings
Unemployment Insurance Savings Account (UISA)	State-contingent	Forced savings

Job displacement insurance across countries over time

We expanded data from Gerard & Naritomi (AER 2021) to 160 countries



(a) High-income countries



(b) Upper-middle-income countries

Job displacement insurance across countries over time

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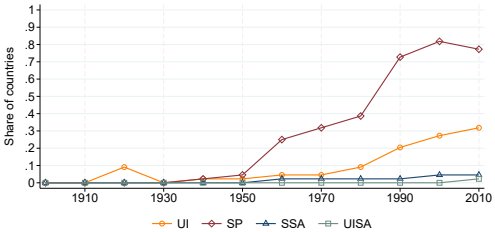
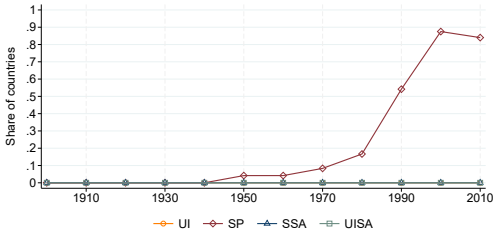


(c) Lower-middle-income countries

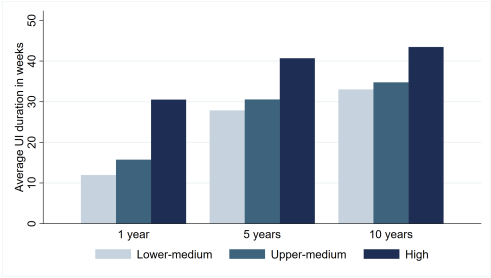


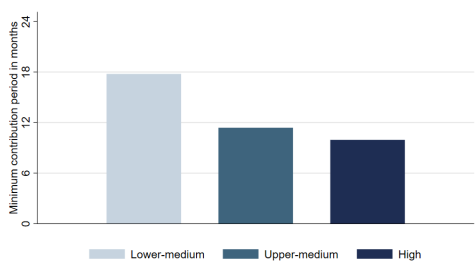
(d) Low-income countries

- JDI quite prevalent today and SP much more common than UI in developing countries

Generosity of JDI policies in developing countries

- UI entitlement periods (UI durations) are shorter
- Minimum contribution periods for UI eligibility are longer

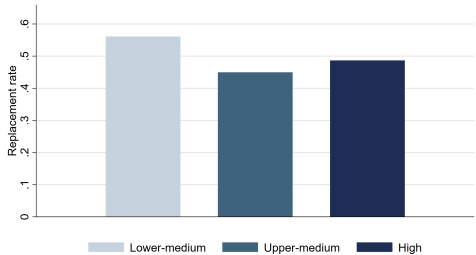


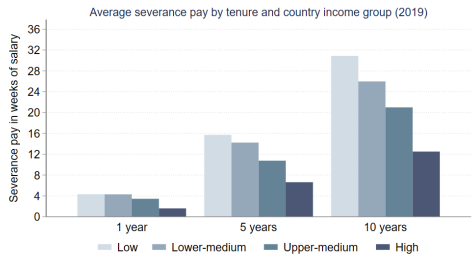


- Sources: ILO; ISSA/SSA, Social Security Programs Throughout the World; ILOSTAT, ECLAC, IMF, WHO, WB, UNDP, UNICEF, completed with national data sources.

Generosity of JDI policies in developing countries

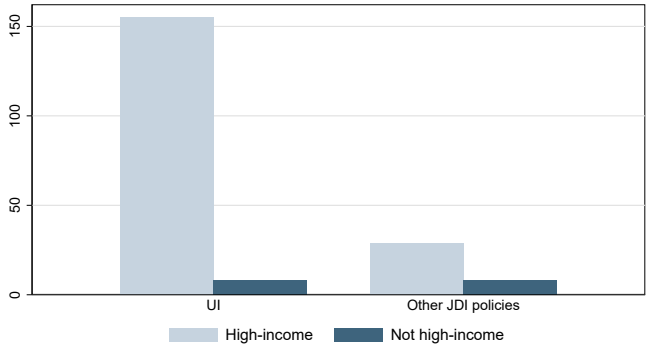
- But UI replacement rates and SP amounts are relatively high (SP is often the only JDI in poorer countries)





- Sources: ILO; ISSA/SSA, Social Security Programs Throughout the World; ILOSTAT, ECLAC, IMF, WHO, WB, UNDP, UNICEF, completed with national data sources.

Number of papers on JDI published in top Economics journals since 2000



Data from Web of Science

- Vast literature on **UI** in high-income countries in top journals
- Much less on **SP/UISA/SSA**, which are more relevant for developing countries

This chapter: JDI policies in developing countries

1. Describe main JDI policies across developing countries
2. Conceptual discussion: incentive vs. insurance in developing countries
3. Review literature: main lessons and open questions for future research

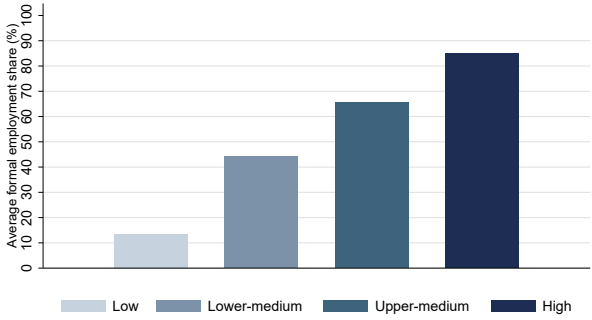
Outline

Two typical policy motives

- **Insurance**: helping workers cope with socioeconomic consequences of job loss
- **Redistribution**: efficiently targeting workers with low earnings ability if these workers are exposed to greater risk of job loss and prolonged unemployment

Redistribution when protection for formal workers only?

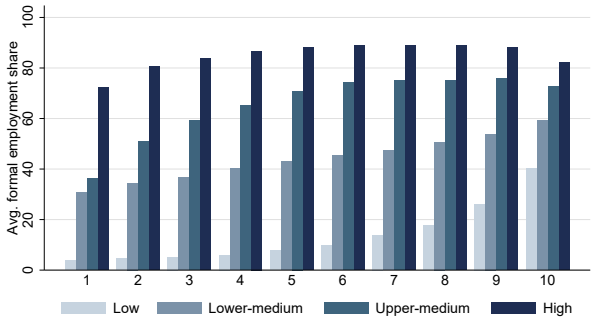
- Targeting of JDI policies based on displacement from formal employment contracts
- Large informal labor markets in developing countries (Ulyssea, AER 2020)
- Formal employment shares increase as countries develop (Jensen, AER 2022) $\rightarrow$ JDI policies become increasingly relevant



Data from Jensen (AER 2022) and World Bank

Redistribution when protection for formal workers only?

- Workers with low earnings ability less likely to be formal in developing countries (Jensen, AER 2022) → **Redistributive motive** weaker in developing countries

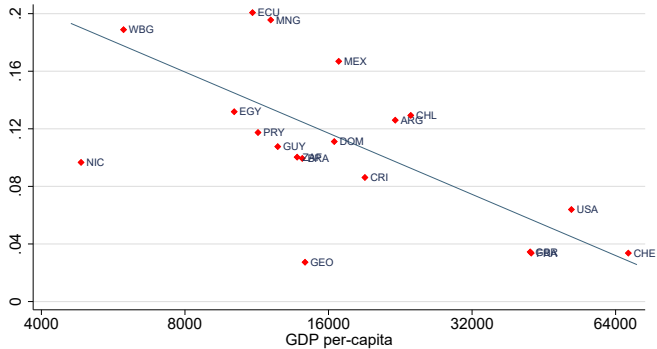


Data from Jensen (AER 2022) and World Bank

- But **insurance motive** could be strong in developing countries if (i) formal workers exposed to job loss risk and (ii) loss of formal job = significant shock

Insurance motive: job-loss risk?

Figure: Quarterly flows out of formal employment

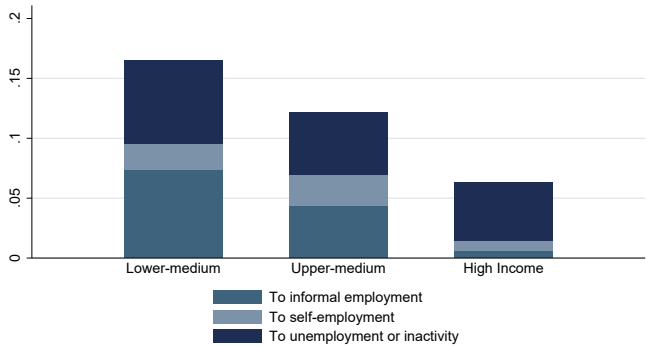


Data from Donovan et al. (QJE 2023)

- Risk of job loss sizable for formal workers in developing countries
- However, whether the risk is higher in lower-income countries is debated

Insurance motive: job loss significant shock?

Figure: Destination of flows out of formal employment

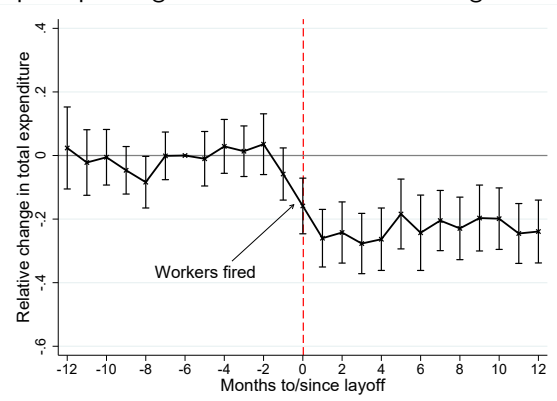


Data from Donovan et al., QJE 2023

- More self-insurance through self-employment and informal wage employment
- But unemployment risk still relevant, and self-insurance value could be limited

Insurance motive: job loss significant shock?

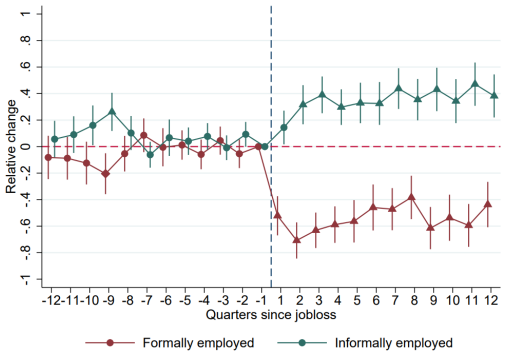
- Gerard and Naritomi (AER 2021): formal job loss and consumption spending in Brazil
  - Sharp immediate drop in spending for workers who are not eligible for JDI



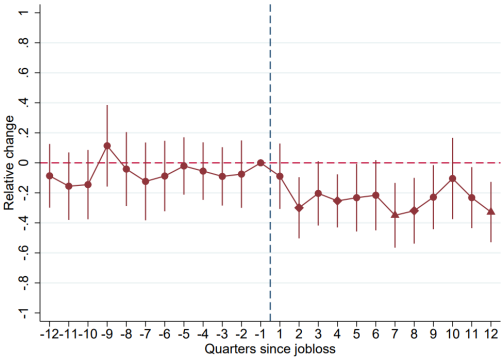
  - For workers eligible for JDI: long-term consumption loss similar to richer countries (-17%)
    $\rightarrow$ sizable need for insurance even when informal work could serve as self-insurance

Insurance motive: job loss significant shock?

- Liepmann and Pignatti (JPubE 2024): impact of formal job loss in Mauritius
  - Match admin and survey data: imperfect self-insurance through informal work
  - Document imperfect self-insurance and large consumption losses (-32.8%)



(a) Impact on employment status



(b) Impact on consumption spending

Insurance motive: job loss significant shock?

- For given consumption drop, insurance could be more valuable in developing countries
  - Chetty & Looney (2007): mechanisms of consumption-smoothing could be worse for welfare in Indonesia vs the U.S. (e.g., removing children from school)
  - Abebe et al (2025): additional means of consumption smoothing in Ethiopia (informal transfers from kin network) but still very high demand for JDI

- Evidence of a range of adverse effects of formal job loss in Brazil
  - criminal activity (Britto et al, ECMA 2022)
  - domestic violence (Bhalotra et al, ReStud 2025)
  - children's educational outcomes (Britto et al, 2022)
  - hospital admissions and mortality (Amorim et al, 2022)

  $\rightarrow$ All these papers show evidence that UI attenuates these adverse effects

Outline

Incentive-insurance trade-off and policy design in developing countries

- Literature reviewed so far: there is need for insurance in developing countries and JDI can help mitigate adverse effects of job loss
- But welfare effects also depend on potential distortions that JDI programs may create
- Gerard & Gonzaga (AEJ 2021): with informality, the usual incentive-insurance tradeoff (Baily, 1978; Chetty, 2006) remains conceptually similar

  Incentive: distorting incentives to find a new formal job (i.e., moral hazard)

  Insurance: helping workers smooth consumption against

  (1) risk of formal job displacement, and
  (2) risk of remaining without a formal job

Incentive-insurance trade-off for main JDI policies

(Baily, 1978)

- **UI**: state-contingent as continued eligibility depends on remaining without formal job
  - Better for insurance: insure against both types of risks
  - Worse for incentives: more distortionary (income + substitution effects)
- **SP**: lump-sum at layoff
  - Worse for insurance: only insure against risk of job displacement
    - All workers receive same support irrespective of time spent without formal job
  - Better for incentives: less distortionary (only income effect)

Outline

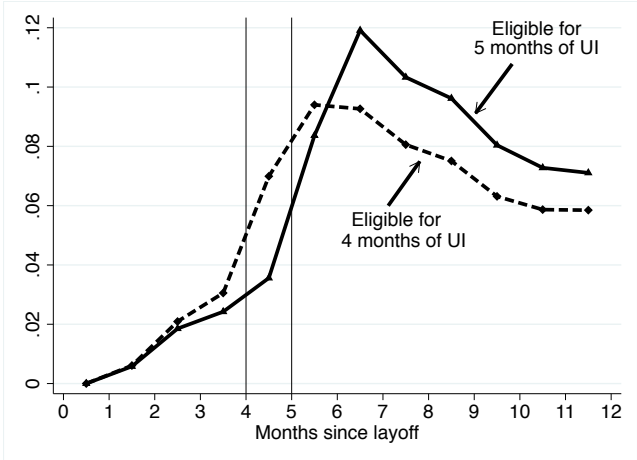
Incentives: efficiency cost of UI and informality

- Common view: high informality → UI has larger efficiency cost from moral hazard
  - Very loose (but pervasive!) "intuition" that things must be worse when workers have more margins of behavioral responses (option to stay non-employed + to work informally)

- Workers do delay formal reemployment because of UI benefits in developing countries (Gerard and Gonzaga, AEJ 2021; Britto, RESTAT 2022; Liepmann and Pignatti, JPubE 2024)
  - And this is indeed partly driven by workers opting to work informally

- Gerard and Gonzaga (AEJ 2021): but does high informality make distortions worse?

Figure: Hazard rates of formal reemployment



Gerard and Gonzaga (AEJ 2021)

- Does this clear evidence of behavioral response imply a large efficiency cost?

Incentives: efficiency cost of UI and informality

Gerard and Gonzaga, AEJ 2021

- Efficiency cost of a policy depends on size of Fiscal Externality: $FE \equiv \frac{BE}{ME}$
  - **Behavioral Effect (BE)**: cost to the government budget due to workers changing their behavior in response to expanding UI benefits (moral hazard)

Channel 1 Delay formal reemployment, and so collect more benefits
Channel 2 Spend less time formally employed, and so pay less in taxes

  - **Mechanical Effect (ME)**: cost to the government budget arising directly from workers drawing additional benefits *absent behavioral responses*

(see also Finkelstein and Hendren, JEP 2020, for simple introduction to concept of FE)

- Usual Baily-Chetty formula for optimal UI policy: $\frac{E[u'(c_{ben})]-E[u'(c_{tax})]}{E[u'(c_{tax})]} = FE$
  - At optimum: equalize fiscal externality and social value of insurance, i.e., social value of transferring \$1 from those who fund benefits to those who receive it

Incentives: efficiency cost of UI and informality

Gerard and Gonzaga, AEJ 2021

- Key lesson from increasing UI duration in Brazil: efficiency cost of UI *does not* increase with informality
  - Efficiency cost in Brazil is *smaller* than comparable estimates for the U.S.
  - Within Brazil: efficiency cost is *smaller* in labor markets with higher informality
  - Related evidence from Mauritius: efficiency cost from increasing benefit levels not larger than comparable estimates from richer countries (Liepmann and Pignatti, JPubE 2024)

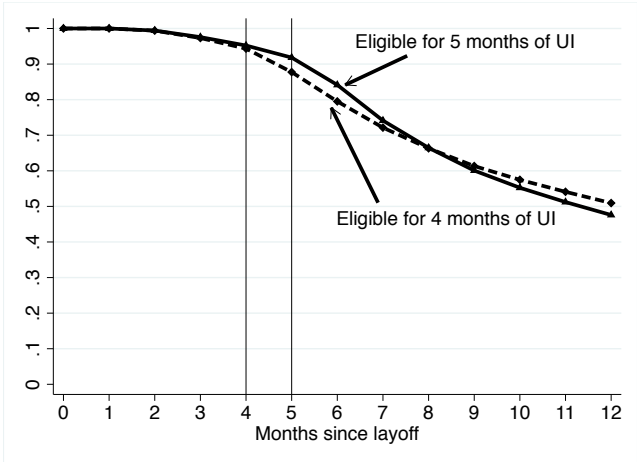
- Mechanism: long time to find a new formal job independently of UI incentives
  - Brazil: 50% remain without a formal job 12 months after layoff, long after UI benefits are exhausted $\rightarrow$ mechanically costly to provide UI, so $BE << ME$

- Same mechanism $\rightarrow$ UI more costly to fund in developing countries: $D \times \tau^{UI} = b \times B$
  - Open question: would workers be willing to pay higher tax necessary to fund it?

Incentives: efficiency cost of UI and informality

Gerard and Gonzaga, AEJ 2021

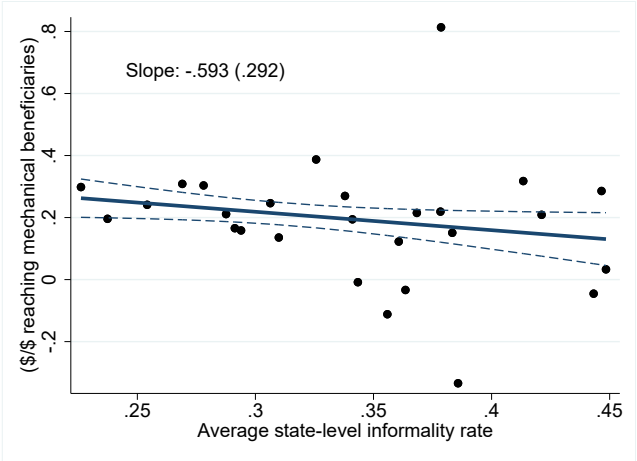
Figure: Survival rates without a formal job



Incentives: efficiency cost of UI and informality

Gerard and Gonzaga, AEJ 2021

Figure: Efficiency cost and informality rates



Incentives: SP vs UI

- SP is not state-contingent → does not distort incentives to find formal jobs
- But could still delay (formal) reemployment because of liquidity effect
  - Card, Chetty, and Weber (2007) first to provide evidence using Austrian data: SP delays reemployment but less so than UI → efficiency cost of SP much smaller
- Britto (ReStat 2022): provide evidence from Brazil comparing impact of increasing UI duration vs receiving a lump-sum amount (as with SP)
- Hensel et al (WP 2025): RCT providing lump-sum to displaced formal workers in Ethiopia → big reduction in likelihood of working in any (formal) job in next year

→ Liquidity effects also matter in developing countries where SP more important

Outline

Insurance: SP vs. UI

- Focus of JDI policy debate: differences in **contingency policy**
  - SP does not distinguish between those with short vs long spells without formal job
  - UI is better targeted as workers who stay without formal job longer receive more benefits
- In high-income countries, workers are re-employed quicker $\rightarrow$ relevant difference in how much different workers would receive under SP and UI
- In developing countries workers take a long time to find formal jobs $\rightarrow$ this difference in targeting between SP and UI matters less (especially if short potential UI duration)

Insurance: SP vs. UI

- Another key (but overlooked) difference is their **disbursement** policy:
  SP provides a **lump-sum** vs UI provides **tranche** payments (e.g., monthly)

- Standard framework: disbursement should not matter much $\rightarrow$ a lump-sum can be dissaved slowly, and tranche payments can be saved (e.g., if need to buy larger items)

- What if workers struggle to save or dissave smoothly?
  - Limited savings technology (e.g., access to banks), kinship taxation, present bias

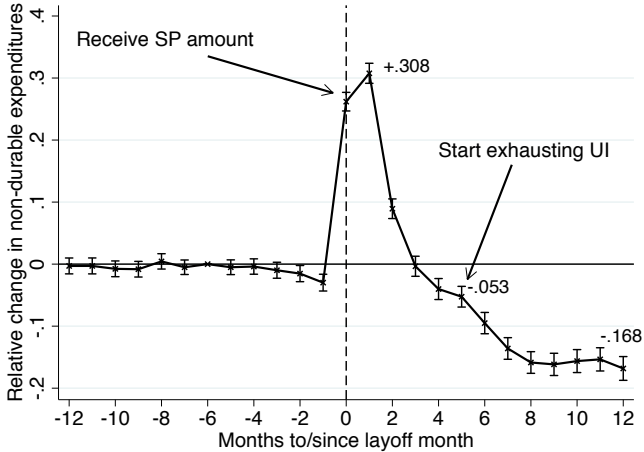
  $\Rightarrow$ Excess sensitivity of consumption to cash-on-hand: weakens insurance value of SP!

- Gerard and Naritomi (AER 2021): evidence for workers who receive SP lump-sum at layoff (& 5 months of UI) and have particularly strong incentives to smooth
  - Positive transitory income shock: SP lump-sum
  - Negative permanent income shock: lay-off (e.g., Stephens 2001, Hendren 2017).

Insurance value: what if there is excess sensitivity to cash-on-hand?

Gerard and Naritomi (AER 2021)

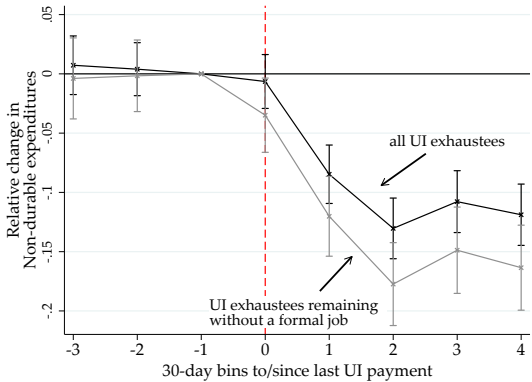
- Consumption spending spikes up after layoff (when receive SP lump-sum)!



Insurance value: what if there is excess sensitivity to cash-on-hand?

Gerard and Naritomi (AER 2021)

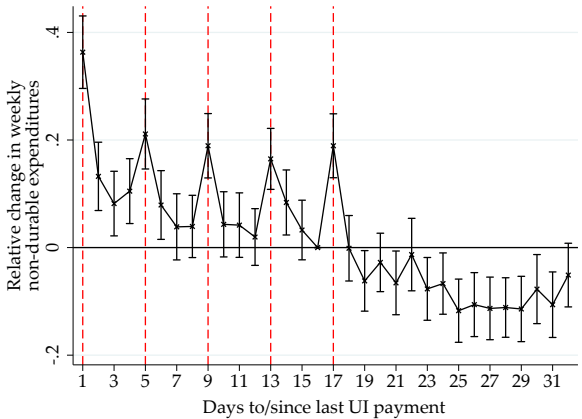
- Lack of smoothing in anticipation of expected drop in income at UI exhaustion
  - Similar finding for the U.S. in Ganong and Noel (AER 2019) $\rightarrow$ behavioral pattern of consumption decision that appears stable across contexts



Insurance value: what if there is excess sensitivity to cash-on-hand?

Gerard and Naritomi (AER 2021)

- Expenditures very sensitive to timing of payment within month too



Potential mechanism: present bias

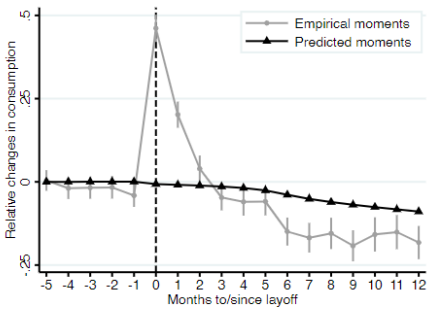
Gerard and Naritomi (AER 2021)

- Findings at odds with standard models of job-search and consumption with liquidity constraints and forward-looking agents (Card et al, QJE 2007; Chetty, JPE 2008)
- Adding present bias $\rightarrow$ high propensity to consume out of liquidity and low propensity to save in anticipation of negative shock
- Sophisticated $\beta - \delta$ mechanism supported by survey of UI applicants
  - Brazil: 60% say they would not want to get all UI benefits in lump-sum fashion at layoff ("control expenditures" or "not spend it all at once")
  - Ethiopia: 50% prefer monthly payment over lump-sum of additional liquidity at layoff to "help control expenditures" (Hensel et al, WP 2025)

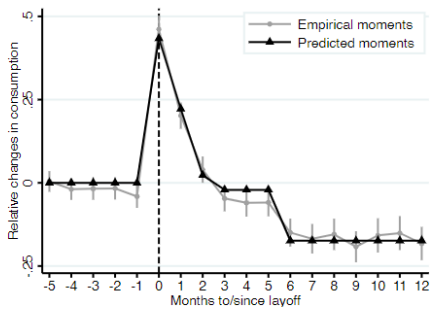
Potential mechanism: present bias

Gerard and Naritomi (AER 2021)

Benchmark: $\delta = 0.995, \beta = 1$



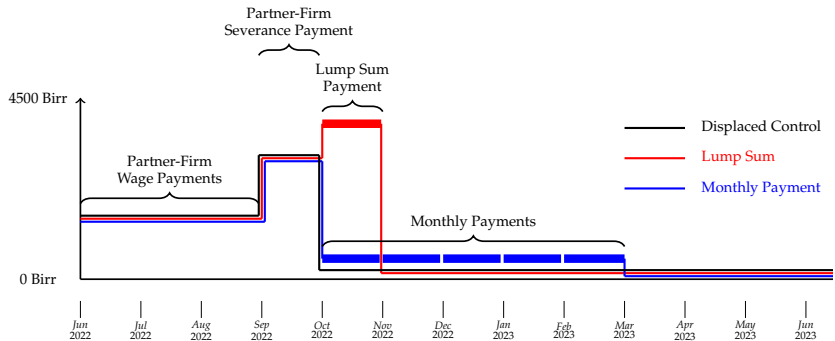
Sophisticated $\beta\delta$: $\delta = 0.995, \beta = 0.70$



- Show that model with present bias can match empirical findings closely
- Use model to assess counterfactual policies $\rightarrow$ SP paid in 5 installments instead of lump-sum can increase insurance value without much change in incentives (win-win!)

Policy prediction confirmed experimentally in Hensel et al (WP 2025)

- RCT with workers laid off from garment factory in Ethiopia
  - Control (N=471): receive statutory SP from partner firm
  - Lump-sum (N=488): statutory SP + one-off payment
  - Monthly (N=451): statutory SP + equivalent amount in 5 monthly payments



Policy prediction confirmed experimentally in Hensel et al (WP 2025)

- Consumption spending sensitive to cash-on-hand
- Spike with lump-sum driven by those with strong demand for monthly treatment!

	Total expenditure	
	(1) mon. 0-1	(2) mon. 2-5
Lump sum	231.78***	-24.33
	(63.26)	(36.90)
Monthly	28.58	67.97*
	(60.05)	(35.28)
Control mean	1995.85	1654.60
Control - Non-displaced	-40.33	-183.24***
Lump sum = monthly (p)	0.00	0.01
Observations	1314	1350

Δ_i: lump sum - monthly — **Months 0 and 1**

Panel A:

	Total expenditure	Core expenditure
Δ_1 | Str. preferred monthly	431.84***	141.20***
	(115.42)	(41.67)
Δ_2 | Not str. preferred monthly	106.04	27.15
	(74.58)	(28.15)
$\Delta_1 = \Delta_2$ (p)	0.018	0.024
Monthly payment mean	2027.029	815.672
Number of observations	883	883

- In fact, find that lump-sum (only form of JDI in low-income countries!) not only provide limited insurance value but also leads to longer reemployment delays!

Taking stock: UI vs. SP in developing countries

- **UI**: state-contingent
  - Better for insurance: insure against both types of risks
    - Targeting advantage lower because workers take a long time to find formal jobs
    - Tranche disbursement is relevant for insurance value under high sensitivity to cash-on-hand
  - Worse for incentives: more distortionary (substitution effect), particularly with informality
    - Efficiency cost of UI *does not* increase with informality
    - Total cost can be substantive, but mostly transfers to mechanical beneficiaries
- **SP**: lump-sum at layoff
  - Worse for insurance: only insure against risk of displacement
    - Targeting disadvantage matters less, but lump-sum disbursement can limit insurance value
    - SP could have a higher insurance value if disbursed in tranches
  - Better for incentives: less distortionary (only income effect)
    - Yes compared to UI
    - (NEW!) But SP could also lead to better reemployment outcomes if disbursed in tranches

Outline

Moral hazard on the separation margin and JDI funding

- **UI**: firms and workers may change their decision to separate → possible increase in "fake layoffs" (workers continue working through informal contracts)
  - Evidence from Brazil: UI claims very responsive to UI eligibility for low-tenure workers (Carvalho et al, EL 2018; Doornik et al, AEJ 2023)
  - One solution: experience-rating of UI, Blanchard and Tirole 2008 (firms internalize cost they impose on system when laying off more workers)
  - Experience-rating of UI rare in practice, possibly due to political economy factors: sectors with high turnover also labor-intensive and effective at blocking such proposals
  - Potential solution: introduce industry-specific targets for experience-rating, firms that use the UI system more than the industry average would contribute more

- **SP**: avoids this issue, because experienced-rated in its usual form
  - Firms pay more in SP if they lay off more workers
  - But full experience-rating could worsen liquidity constraints faced by firms in developing countries: do firms have any demand for layoff insurance (Abebe et al, in progress)?

State capacity and policy implementation

- **UI** requires state capacity: information systems and monitoring to determine benefit levels and duration, track job displacement and formal re-employment
  - Costly investment but potentially useful to respond effectively to economic emergencies: countries with UI could channel extra assistance to workers during COVID-19 crisis

- **SP** shifts to firms the cost of computing, disbursing and managing payouts... but government enforcement still needed: are workers actually receiving their benefits?
  - Brazil: labor issues are the main reason people use the justice system, and compliance with SP is the top issue (Britto et al, WP 2025)

→ More evidence needed to understand how state capacity affects JDI implementation and impact

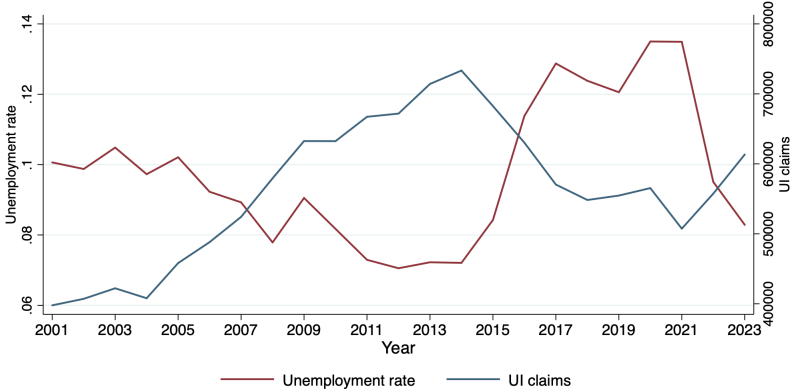
Economy-wide effects

1. Micro-level estimates of the impact of JDI on formal reemployment may fail to predict labor-market responses and efficiency costs accurately
   - E.g., job search externalities (Landais, Michaillat, Saez, AEJ 2018) may be relevant in developing countries where formal jobs are more limited
2. If workers value JDI policy above their costs, JDI can make formal jobs more attractive (Cirelli et al, JDE 2021) $\rightarrow$ increase formalization of the labor market!
3. Introducing formal insurance against job loss in the economy may end up weakening existing informal insurance arrangements (e.g., kinship insurance)
   - Kinship transfers are relevant to laid off workers in Ethiopia (Hensel et al, WP 2025), but not much in Mauritius (Liepmann and Pignatti, JPubE 2024)
   - Social pensions impacted forms of informal insurance: e.g., fertility (Rossi and Godard, 2022) or shared housing with adult children and educational investments (Bau, 2021)

$\rightarrow$ No direct evidence for developing countries ([1] and [2]) or no evidence for JDI ([3])

Business cycles

- Cyclicality of layoffs and JDI claims may differ in developing countries
  - UI claims typically rise in recessions in Europe and the U.S. (Petrongolo & Pissarides, 2008; Davis et al, 2012), but they are pro-cyclical in Brazil: as formalization increases with economic growth, the number of formal layoffs (real or fake) also increase



Other JDI policies: Savings-based benefits

- **Savings-based** JDI policies less common
  - Severance Savings Accounts (SSA) in 13 countries (mostly middle-income)
  - Unemployment Insurance Savings Accounts (UISA) in only 2 countries (Chile and Jordan) but figure prominently in policy debates for developing countries (Vodopivec, IZA 2013)
- In purest forms, these are mandatory savings policies (no insurance component): portion of workers' salary deposited in individual saving account
  - SSA: worker can withdraw the balance at separation (or retirement)
  - UISA: contingent trenched disbursement (any balance is pensionable);
    - In practice, insurance can complement own savings
    - Chile: solidarity fund if duration exceeds savings

Other JDI policies: Savings-based benefits

- Typical motivation: workers may not self-insure enough given job loss risk
  - Which model provide normative rationale for SSA: force people to save AND let them withdraw balance "lump-sum" at layoff? Not present bias or other savings constraints!
  - UISA better for consumption-smoothing: tranche disbursement + workers can borrow and pay back when return to formal employment (make new deposits into their account)
- Usual motivation for UISA: less of incentive to delay formal remployment than with UI
  - Will workers understand that need to pay back if delay formal reemployment and borrow?
  - Present-biased workers may act as if delaying formal reemployment has no personal cost

Coverage

- Large share of labor market excluded from JDI coverage in developing countries
  - Formal workers with limited tenure because of higher minimum contributions
  - Informal workers (and they face high job loss risk; see Donovan et al, QJE 2023)

- Other policies common in developing countries could provide some insurance value

1 Cash and in-kind transfers
  - But eligibility criteria too "static" to provide timely support: eligibiliy assessed infrequently using slow-moving indicators of need (e.g., proxy-means testing)
  - Middle-class workers may also not become poor enough to qualify even after job loss

2 Workfare programs (i.e., guaranteed-employment programs)
  - In theory could provide timely support (anyone could apply for public works)
  - Yet, existing workfare programs in urban areas – where concept of job loss more palatable – rarely come with unconditional employment guarantees (Franklin et al, AER 2024)
  - Existing programs with unconditional guarantees – like NREGA in rural India – often fail to provide employment or pay in a timely manner (Dodge et al., WP 2025).

Conclusion

- Historically less JDI in developing countries, but quite prevalent now
- Bound to become more relevant as labor markets formalize with development
- Chapter reviews main JDI policies in developing countries, focusing on how informality influences the coverage, need, and design of JDI policies
- Chapter also highlights significant gaps in literature and avenues for future research
  - Notably, most of the available evidence originates from a few middle-income countries
  - But substantial contextual variation within the category of "developing countries"!