

Trade Policy and Unemployment

World Economy Lecture
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June 24, 2010

Outline

- Define the issues I am interested in exploring
- Provide a framework and model
- Derive some simple results
- Suggests avenues for future research

Goals of Trade Policy?

- If we are to erect new barriers to trade (or lower existing ones), doing so should increase the welfare of citizens
- So, with this in mind, **should** trade policy be influenced by unemployment?

Answer from Politicians -- Yes

- Baldwin and Magee (2000):
- 44% of those voting for NAFTA gave “will increase jobs and wages” as the primary reason for their yes vote
- 70% of those voting against NAFTA gave “will decrease jobs and wages” as the primary reason for their no vote
- Top answer for both groups

Some typical quotes

- Unfair trade agreements, passed by both Republications and Democrats, **have sent millions of jobs to other countries**. We need to stop this hemorrhaging and find ways for American workers to compete in the new market.

Russ Feingold (US Senator from Wisconsin)

Some typical quotes

- There is \$1.4 billion a day in trade that goes back and forth across the border. **That means millions of jobs** and livelihoods for families here in Canada and for families in the United States.

Paul Cellucci (US Ambassador to Canada)

It's not just those crazy Americans

- The global economy is a fact. The expansion of world trade - with exports up over 50 per cent since 1990 - **has created millions of new jobs** and offered many the chance to move from poverty towards prosperity.....
and, above all that **more open markets and more trade mean growth and new jobs**

Tony Blair (Statement to the WTO 1998)

More British wisdom

- **[Free trade is] the key to jobs** for our people, prosperity and actually to development in the poorest parts of the world.

Tony Blair (Statement to Canadian
Parliament, 2001)

Trade and Job Types

- Politicians often characterize jobs as “good” or “bad” in analyzing trends in employment
- John Kerry, in running against Bush in 2004, argued that jobs created under Bush were “bad jobs” while those lost were “good jobs”
- Characterization usually rests on wages
- Concern when trade costs us “good jobs” (outsourcing of high-skilled jobs to India)

Bottom Line

- Politicians see a link between trade policy, total unemployment and the distribution of job “types”
- There seems to be a presumption that trade policy should be used to influence job creation or limit job destruction in certain types of sectors

Answer from the Public -- Yes

- Baldwin and Magee (2000) and Scheve and Slaughter (2001) both note a significant shift away from support for trade liberalization in the late 1990s
- Both attribute much of this to concerns about labor market (wage and employment) effects from further liberalization

Survey Evidence: Scheve and Slaughter

- Majority of Americans now oppose policies to further liberalize trade
- **People believe that globalization has slowed wage growth, increased inequality, and contributes to job destruction (by a 2 to 1 margin)**

Scheve and Slaughter

- This attitude is not due to ignorance
- Their evidence strongly suggests that citizens understand the costs and benefits of trade but “a consistent plurality or majority tend to weigh the costs more heavily than the benefits and thus oppose liberalization”
- **Plurality believe that in net terms trade hurts wages and destroys jobs**

Survey Evidence: Hiscox (2004)

- Surveyed American adults with 3 treatments:
 - Pro-Trade Introduction: *Many people believe that increasing trade with other nations creates jobs and allows Americans to buy more types of goods at lower prices.*
 - Anti-Trade Introduction: *Many people believe that increasing trade with other nations leads to job losses and exposes American producers to unfair competition.*
 - Both: *Many people believe that increasing trade with other nations creates jobs and allows Americans to buy more types of goods at lower prices. Others believe that increasing trade with other nations leads to job losses and exposes American producers to unfair competition.*

Hiscox's Results

- Subjects that were read the pro-trade intro were no more likely to support freer trade than those that were given no introduction
- Subjects that were read either the anti-trade intro or both intros were significantly more likely to oppose freer trade than those in the control group

Hiscox -- Implications

- Pro-trade arg. couched in terms of job creation and lower prices do not alter trade preferences
- Not only did anti-trade arg. linked to job destruction make subjects less likely to favor liberalization, these arg. clearly trumped the pro-trade arguments
- Similar results were found with respect to the intensity of preferences: **anti-trade arguments couched in terms of job destruction significantly increased the intensity of opposition to freer trade**

Explanations: Happiness

- Economics of Happiness (Winkelmann and Winkelmann 1998; Helliwell 2003; Oswald 2003; Layard 2005):
- **Job loss is one of life's most traumatic events**
- Ranks as more traumatic than separation from spouse

Explanations: Happiness

- Scarring effects from unemployment – Arulampalam 2001; Gregg 2001; Gregg and Tominey 2005; Gregory and Jukes 2001
- Recent NYT article NYT on health implications of unemployment
 - **Layoffs more than double the risk of heart attack/stroke for older workers**
 - **Workers losing their jobs face an 83% greater chance of developing stress related health problems**

Explanations: Sociotropic Concerns

- Sociotropic voting is more common than pocketbook voting, Miller and Shanks 1996; Kramer 1983 – ***Sociotropic Voting is defined as voting for measures that one expects to increase Social Welfare as opposed to individual welfare***
- Individuals are more aware of and concerned about unemployment as opposed to inflation Conover et al 1986; Di Tella et al 2001, 2003 – **Sociotropic concerns appear to be tied to the rate of unemployment**

Bottom Line

- The public views trade policy and unemployment as inextricably linked
- Concerns are not only about private impact on employment risk, but also on overall unemployment

Answer from Academic Economists

- Largely “No!!!!!!”
- It should be possible to emphasize to students that the level of employment is a macroeconomic issue..... depending in the long run on the natural rate of unemployment, with microeconomic policies like tariffs having little net effect

Paul Krugman (AER, 1993)

- Similar views from Mussa in same journal

Other Evidence

- Most (but not all) work on trade policy ignores unemployment (e.g. Scheve and Slaughter 2001; Mayda and Rodrik 2005)
- In Rodrik's 1995 Handbook Chapter "The Political Economy of Trade Policy" the word "unemployment" does not appear

Problems with such attitudes

- We have no basis for these beliefs
- Most basic trade models assume full employment
- Most empirical work focuses on industry studies, not aggregate impact (although this is changing)
- Economies with unemployment may behave very differently from economies with full employment
- These claims lack credibility, too easy for non-academics to simply dismiss

Lack of Credibility

- Protectionists in the public policy arena dismiss academic arguments for free trade by pointing to our unrealistic assumptions: perfect competition, full employment, perfect mobility across sectors, instantaneous adjustment
- “All economic analysis must simplify, but what matters in any debate is the usefulness of the assumptions. Critics and supporters of free trade are trying to determine whether the benefits of liberalization exceed the costs...Brown-Deardorff-Stern assume away all criticisms of globalization.”
- Tend to focus on adjustment costs and unemployment

They have a point but.....

- Krugman's point: Unemp. largely tied to overall level of economic activity; trade is concerned with the distribution of resources given the overall level of economic activity
- But...economy-wide unemployment is a convex comb. of unemployment in different sectors – shifting resources changes the weights and the sectoral rates of unemployment

Bottom Line

- Most academic economists seem to share the view that unemployment should not play any role in the determination of trade policy
- The adjustment costs that accompany trade reform, which are of paramount importance to the public, have received very little attention in the mainstream literature

Some Exceptions

- Old literature: Brecher, Davis (minimum wages); Davidson, Martin, Matusz (search); Matusz, Copeland, Hoon (efficiency wages)
- New literature: Kreickmeier, Nelson, Egger (fair wages); Moore and Ranja; Helpman, Itskhoki, Redding; Mitra and Ranjan and Felbermayr, Prat, Schmerer (search); Davis and Harrigan (efficiency wages)

Trade Policy

- Papers on trade policy with unemployment
 - Davidson, Martin, Matusz (1994); Costinot (2009)
 - Bradford (2006)
- First 2 based on market imperfections (eq. is inefficient, trade policy corrects this, alters unemployment) – **economic rationale**
- In Bradford govt. uses trade policy to buy votes of the unemployed – **political rationale**

Does Unemployment Influence Trade Policy ?

- Odd dichotomy
 - Much of the literature on protection ignores unemployment altogether (Rodrik....)
 - Studies that account for unemployment find a robust, positive link between unemployment and protection: higher unemployment is associated with higher levels of protection (Trefler 1993; Mansfield and Busch 1993; Bohara and Kaempfer 1991; Bradford 2003, 2006)

Goals for Today

- Sketch a new approach to the political economy of trade policy
- **Emphasis placed on scarring effects of unemployment and sociotropic concerns**
- Highlight some predictions of the new approach
- **Show that this approach rationalizes some of the public's concerns**
- Wrap up with suggestions for future research

Modeling Objective

- To develop a model of trade policy-making that involves:
 - **Unemployment**; and
 - **Behavioral preferences**—i.e. preferences over policy derived from systematic information about actual preferences (what are individuals' true concerns about trade policy?)

How might we move the theory of endogenous trade policy forward?

- Why do citizen preferences matter?
 - Trade politics are archetypal insider politics
 - A very small number of organized interests are actively involved in lobbying on trade; and, as we have noted,
 - Trade is rarely a major electoral issue
 - However, insider politics are constrained by the threat that, if overall outcomes diverge dramatically from citizen preferences, those in power may be threatened by unconventional figures that play on populist fears (e.g., Lou Dobbs, Ross Perot)

How might we move the theory of endogenous trade policy forward?

- We have a natural place in our theory for precisely this political constraint:
 - Consider the govt's objective function from the GH (1994) menu auction model

$$G := \sum_{g \in G} C_g(\mathbf{p}) + aW(\mathbf{p}), \quad a \geq 0.$$

- That is, it is a weighted average of contributions (i.e. lobbying effort) and aggregate welfare

How might we move the theory of endogenous trade policy forward?

- Aggregate welfare is a black box, but it should be clear that the role it plays is precisely that of the broad citizen constraint
- We want to use what we know about actual citizen preferences over trade policy to alter the way that aggregate welfare is calculated

What do we know about citizen trade policy preferences?

- Consistent with these general facts, it appears to be the case that:
 - Citizens condition their political preferences on protection very strongly on their beliefs about the effects of that policy on unemployment
 - Furthermore, they worry about both their own unemployment and that of other members of their community (sociotropic concerns)

Modeling the public constraint

- We need a model with eq. unemp.
 - We use a simple search/matching model
- We derive aggregate preferences that reflect the personal and sociotropic concerns about unemployment and analyze optimal policies
- **Based on joint work with Steve Matusz and Doug Nelson**



Agent utility: scarring & fairness

- We use the following indirect utility function:

$$v(p)\omega - s(b)I - \varphi(\mu; b) \text{ where}$$

- p is the consumer price index and ω is income;
- s is the disutility suffered as a result of own unemployment ($I = 1$ if the agent is unemployed)
- φ gives disutility from aggregate unemployment
- $b =$ Unemployment Insurance (UI) which reduces the disutility of unemployment – measures the generosity of the welfare state

Trade and Unemployment with Scarring and Fairness Prefs: Assumptions

- Continuous time, small open economy
- Fixed number of agents who are:
 - *ex ante* identical, infinitely lived, risk neutral (do not want an insurance argument)
 - supply one unit of labor at each point in time
- 2 goods, one input (labor)

Trade and Unemployment with Scarring and Fairness Prefs: Assumptions

- Search required for workers to find each other with number of new matches (M) function of number of searchers (U)
- Each match creates 2 jobs and produces two units of output, proceeds are evenly divided
- Jobs last until the match is dissolved:
 - Exogenous shocks occur at rate δ_i ; or
 - Voluntary separation (but not in equilibrium)

Assumptions

- Matching function: $M(U_i)$, which is increasing and concave (congestion externalities)
- Workers are identical: each searcher is equally likely to find a job—*job acquisition rate* is:

$$\pi_i(U_i) = \frac{2M_i(U_i)}{U_i}.$$

Value Functions

- Expected lifetime utility is given by:

$$rV_i^E = v(p)[p_i - \tau(b)] - \varphi(\mu; b) - \delta_i(V_i^E - V_i^U)$$

$$rV_i^U = v(p)[b - \tau(b)] - s(b) - \varphi(\mu; b) + \pi_i(U_i)(V_i^E - V_i^U)$$

p_i is world price of good i ; r is the interest rate;

$\tau(b)$ is the lump-sum tax (to fund b); and $\mu \equiv$ the unemployment rate

Trade and Unemployment with Scarring and Fairness Prefs: Value Functions

- Unemployed workers select a sector to search in based on comparison of V_1^U and V_2^U
- Employed sector i workers quit if a shock to the economy causes V_i^E to fall below V_j^U

Trade and Unemployment with Scarring and Fairness Prefs: Equilibrium

- New type i jobs created must equal the number destroyed in any steady state
- Adding up conditions (workers are emp. or unemp., everyone is attached to a sector)
- Balanced budget (must pay for UI)

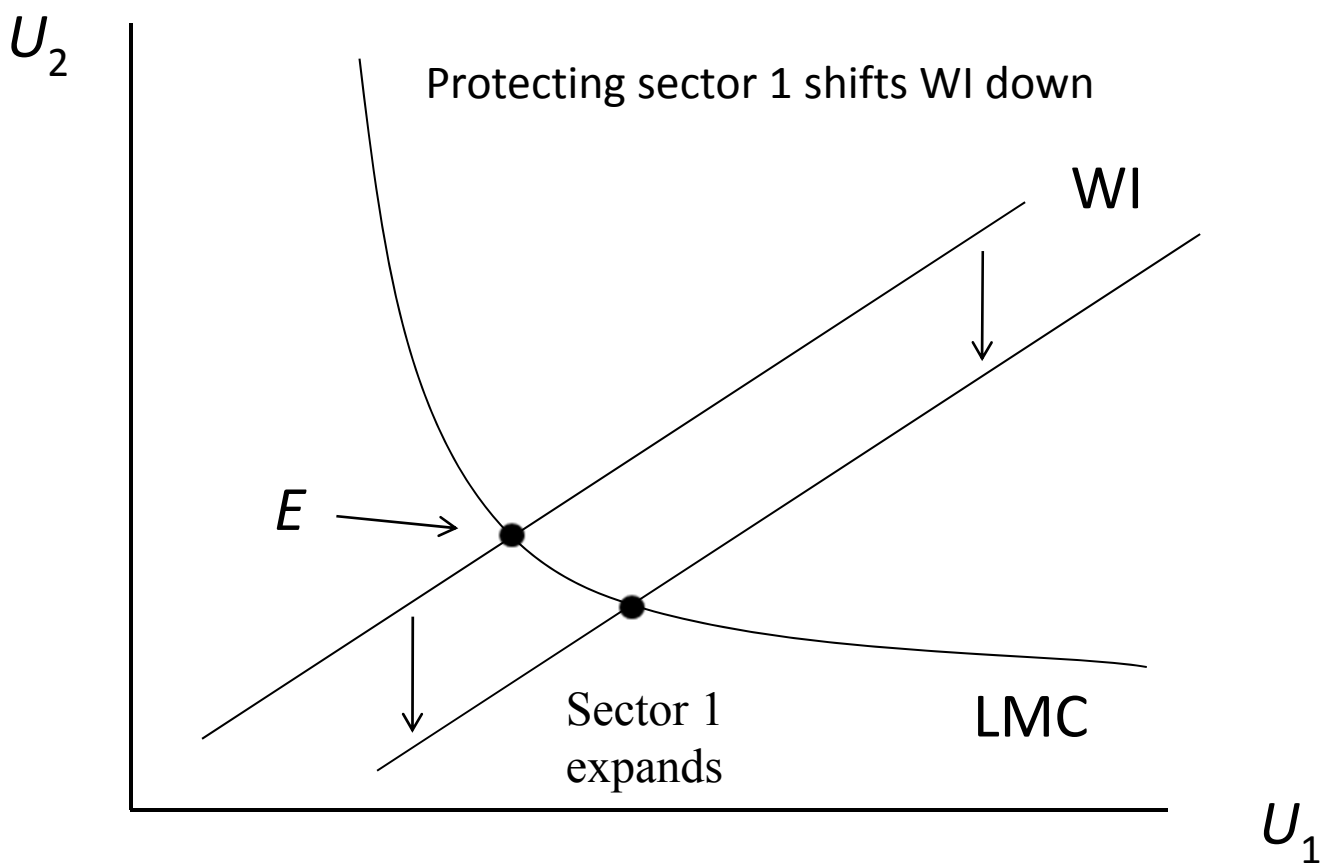
Trade and Unemployment with Scarring and Fairness Prefs: Equilibrium

- Finally, in any diversified eq., unemployed workers sort themselves so that they expect to earn the same lifetime utility in both sectors:

$$V_1^U = V_2^U .$$

Equilibrium

- Model can be reduced to two equations in two unknowns (U_1 and U_2)
 - Worker indifference (upward sloping)
 - Labor market clearing (downward sloping)
- **Proposition 1: There is a unique steady-state equilibrium**



Efficiency and Optimal Trade Policy w/o Fairness Concerns

- Assume that SW is given by an un-weighted utilitarian SWF:

$$W \equiv \sum_i \{X_i V_i^E + U_i V_i^U\} = \sum_I \{L_i V_i^U + X_i (V_i^E - V_i^U)\}$$

– Substituting we get

$$W = \frac{1}{r} \left\{ \sum_i \{v(p) p_i X_i - s(0) U_i\} - \bar{L} \varphi(\mu; 0) \right\}$$

Value of output

Individual scarring

Sociotropic utility loss

Efficiency and Optimal Trade Policy w/o Fairness Concerns

- Workers internalize the scarring effect of unemployment, but FT equilibrium does not maximize the value of output net of scarring,

$$Y \equiv \sum_i \{v(p) p_i X_i - s U_i\},$$

due to externalities in the search process

Externalities

- Implications have been studied and are well understood – see DMM (*EJ* 1987, *JPE* 1988) and Costinot (*JEEA* 2009)
- Not the focus today – to avoid these issues, allow the govt. to institute the production subsidy that maximizes Y

Unemployment and Trade Policy

- How do concerns about unemployment alter optimal trade policy?
 - We start with the allocation of labor that maximizes $Y(E_Y)$
 - By the envelope theorem, small changes in the allocation of labor away from this point create only second-order losses from this value

Unemployment and Trade Policy

$$W = \frac{1}{r} \left\{ \sum_i \{v(p)p_i X_i - s(0)U_i\} - \bar{L}\phi(\mu; 0) \right\}$$

There is an incentive to marginally reduce μ : doing so has no impact on the first two terms; but it will increase W by reducing the sociotropic loss $\phi(\mu; b)$

Proposition 2: The government can raise welfare by instituting policies that marginally reduce total unemployment

Unemployment and Trade Policy

- The allocation that minimizes μ satisfies:

$$\frac{2M_1'(U_1)}{r + \delta_1} = \frac{2M_2'(U_2)}{r + \delta_2}$$

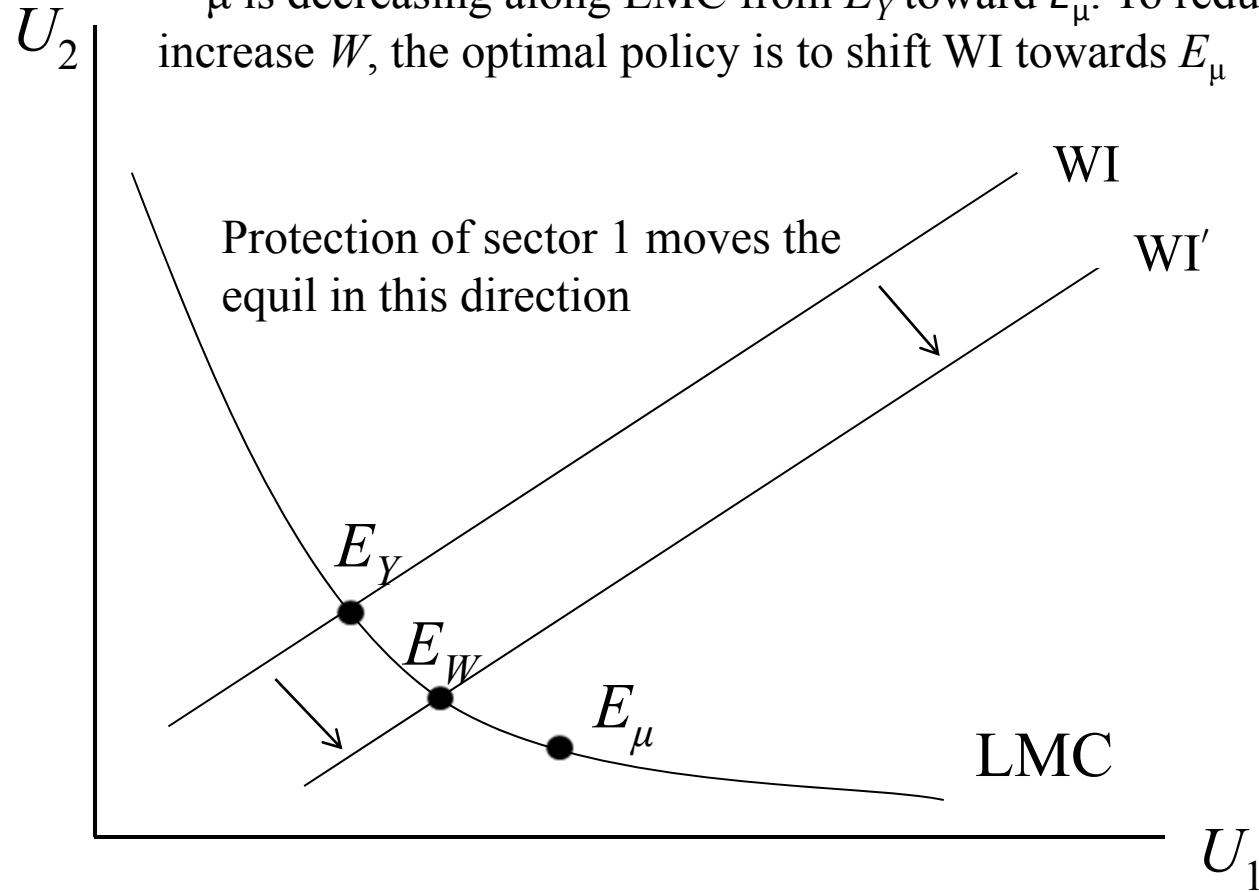
- For low r , concerns about unemployment are minimized when the ratio of the marginal job creation rate to the job destruction rate is equalized across sectors

Fairness and Trade Policy

- Unique point on LMC (E_μ) where unemployment is minimized
- To determine how to reduce μ and thereby increase welfare, we compare E_μ to E_γ . Note that W will be max at some point between E_μ to E_γ

Here, E_μ lies SE of E_Y

μ is decreasing along LMC from E_Y toward E_μ . To reduce μ and increase W , the optimal policy is to shift WI towards E_μ



Proposition 3

- Suppose that the current allocation maximizes the value of output net of the personal costs of unemp. Then if sociotropic concerns about total unemp. are present, the government can reduce unemployment and therefore increase welfare by shifting resources to the sector in which $\frac{2M'_i(U_i)}{r + \delta_i}$ is the highest

Good Jobs – Bad Jobs

- We interpret this as being about a policy preference of “good” jobs
- Good jobs are durable and are in sectors with high marginal job creation rates
- Evidence: Consistent with Bradford’s (2006) finding that protection is lower in industries with high job destruction rates

Problems with implementation

- Proposition is based on steady state turnover rates (may be viewed as “permanent rates”)
- Actual turnover rates also include a temporary rate as sectoral reallocation takes place
- Must separate these out and identify the critical rates – particularly a problem with the marginal job creation rate (not observable)
- Do we really want govt. trying to do this?

Gradualism

- This preference for “good jobs” might imply a policy of immediately shifting workers from “bad jobs” to “good jobs.” But past work has shown that congestion ext. may make gradual implementation of such policies optimal
 - Cost: Takes longer to reach the new ss equilibrium in which welfare is permanently higher
 - Benefit: By phasing in the tariff we can reduce the congestion ext. generated as one sector expands

Gradualism

- Behavioral terms make the case for gradualism stronger: Adds benefits without adding costs
 - Unemployment is lower all along the transition path than it would be in the absence of gradualism
 - Total scarring effects from unemployment and the welfare losses tied sociotropic concerns will be lower
 - **Societies with stronger sociotropic concerns should be more likely to gradually phase in new policies** (can be viewed as Proposition 4)

Gradualism: Conclusion

- To alter the composition of employment, we may want to phase in policies that provide incentives for unemployed workers to seek jobs in the targeted industries. That is, it may be better to have labor-market reallocation take place slowly with only the unemployed changing their career paths to fill the new jobs

Active Labor Market Policies (ALMP)

- A primary goal of an ALMP is to promote labor market adjustment through a variety of policies including: job training; search assistance; and employment subsidies.
 - An essential element is an attempt to move people to “better” jobs (generally seen as higher paying and/or more stable jobs.)
 - From the early 1950s, with the inauguration of the Rehn-Meidner plan in Sweden, until today, ALMPs have figured prominently in Northern European countries. ALMPs have been promoted as part of the OECD’s jobs program (OECD 1990, 1991, 1994, 2006) and the EU’s European Employment Strategy (European Commission 2002, 2004).

Active Labor Market Policies

- We see the gradualism result as being directly related to the strategy of ALMP. That is, ALMP does not conceive of moving currently *employed* people to from “bad” to “good” jobs, but rather seeks to move people as they become *unemployed*

Active Labor Market Policies

- This approach is strongly consistent with the emphasis on moving people from bad jobs to good jobs and Estavao's (2007) suggestion that one benefits from ALMP is that "active policies may lower the disutility of being unemployed, because they provide an occupation to otherwise unemployed workers, some income, and a hope of keeping their labor skills"

Openness and the Welfare State

- There is a common belief that the presence of a welfare state supports openness
- Known as the *Embedded Liberalism Thesis* in Political Science: Basic idea is that post WWII move toward freer trade was facilitated by new government policies that compensated those harmed by free trade (the Welfare State)

Openness and the Welfare State

- Large body of empirical work, going back to Cameron (1978), but results are mixed
 - e.g. Cameron, Katzenstein, Rodrik, Huber & Stephens, and Eichengreen find a positive relationship;
 - Steinmo, Tanzi, Garrett, and Pontusson find a negative relationship; and
 - Iversen, Huber & Stephens (for the more recent period) finds no relationship.

Openness and the Welfare State

- One possible conclusion we might draw from the empirical research on this question:

The relationship between the welfare state and openness may be more complex than is often suggested

Openness and the Welfare State

- Most empirical work is motivated by more-or-less *ad hoc* theoretical claims
- There is very little systematic theoretical analysis of this claim, and even less that proceeds from a GE framework

Openness and the Welfare State

- Most emp. research on welfare state provision emphasizes the centrality of unemployment
- Our model makes unemployment and both its personal and social costs central (it also uses a GE approach)

Openness and the Welfare State

- Core result is that welfare state provision (b) has 2 effects on openness (trade policy):
 - *Direct effect*: Increasing b reduces individual hardship and lowers sociotropic concerns
 - Thus, as b increases, the welfare-maximizing policy places relatively more weight on net output and less on minimizing unemployment.
 - That is, increased welfare state provision leads to less protective trade policy.

Openness and the Welfare State

- *Indirect effect*: By reducing the personal cost of unemployment an increase in b makes the high unemployment sector relatively more attractive; and this leads to an inefficient expansion of that sector
 - This causes unemployment to rise, so
 - When we take the sociotropic effect into account, we expect an increase in protection

Openness and the Welfare State

- Need a better design of the welfare state that acts to reduce the cost of unemployment (leaving the direct effect intact) while reducing the importance of the indirect effect (wage subsidies reward workers for finding jobs, shortens spells of unemployment, flips the indirect effect by making the low unemployment sector more attractive – but, wage subsidies provide no relief to the unemployed)

Concerns: Trade or Industrial Policy?

- Is this a trade issue or a general policy issue?
- Why not attack the issue using domestic policies that may be superior?
- Some evidence that concerns about unemployment are much stronger when trade is viewed as the culprit
- General view of trade consistent with mercantilism: exports good (creates jobs); imports bad (destroys jobs)

Nevertheless.....

- Hard to tell when workers lose their jobs due to trade as opposed to other factors (although we do so with TAA in US)
- Perhaps makes sense to look at policies that soften the blow from unemp. regardless of reason – argument put forward by Kletzer and Litan in favor of wage insurance

Where does this leave us?

- The public is extremely concerned about the adjustment costs associated with trade reform
- The profession has largely ignored these costs and tends to focus on the long run gains from freer trade
- Is there a middle ground?

Conclusions

- Need work focusing on the optimal design of the welfare state
- Great deal of effort along these lines in macro where models with unemp. are the norm
- Not true in trade – unemp. usually ignored
- Macro insights may not generalize to open economy settings (misses the link between policy, labor market structure, pattern of trade)

Conclusions

- Need work on optimal way to compensate those harmed by globalization
- Embarrassingly little work on this given public concerns and evidence that personal costs of adjustment are high
- With more cleverly designed welfare state and more serious attempts to compensate those who bear the costs of adjustment opposition to liberalization may ease

Conclusion

- Highlights the need for richer models of trade that allow for labor market imperfections
- Need models with unemployment to seriously analyze labor market policies designed to aide the unemployed