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REGULAR ARTICLE

Tariffs, trade and unemployment in a disequilibrium model: issues and policies

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Abstract This paper studies the disequilibrium transition process engaged by increased openness to trade, and the effect of institutions, market behaviors and economic policies on that transition. The issue is analyzed with a simple two country (north and south), two goods model, amended in order to take into account the time dimension of both the production and the decision processes. Investigating the consequences of a tariff decrease by means of numerical simulations, we show to what extent wage and price setting, and the degree of tightness of monetary policy affect the outcome of the disequilibrium process. The main result is that capturing the gains associated with international trade requires market behaviors and economic policies, which are rather different from what is usually prescribed.

Keywords Trade · Unemployment · Disequilibrium · Time to build · Wage flexibility

JEL Classification F11 · F12 · F42 · F43

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1 Introduction

The extension of international trade to an increasing number of partners, in particular emergent large economies, causes difficulties to some affluent countries. Unemployment and relocation (outsourcing) are the most visible aspects of these difficulties. Some economists have highlighted the conditions that make trade harmful to affluent countries. Samuelson (2004) shows that an advanced country will suffer a loss of income when its emerging trading partner enjoys productivity gains in the good previously exported by the former. This is presented as a long-run Schumpeterian effect (p. 142). Gomory and Baumol (2000) report similar findings showing that, after the emerging country has caught up thanks to a redistribution of industries exhibiting increasing returns to scale, the wealthier country may have a level of income lower than in its initial trade equilibrium.

However, according to the standard analysis, and except in very peculiar cases, any increase in the degree of openness should be beneficial to all the countries engaged in international trade. The reason is that, at the end of the story, the elimination of distortions in international trade allows a better use of resources inside each country. Affluent countries should benefit from cheaper imports, particularly if adequate employment policies help preventing job-losses. Emerging countries should benefit from larger exports that allow them to capture productivity gains.

We maintain that the problem is less to compare the properties of the equilibrium before and after the change in the conditions of international trade than considering what happens during *the transition* between these equilibria. A country's increase in openness can be assimilated to a structural change triggering a transition process, the outcome of which in turn depends on what happens along the way, notably on the prevailing market behaviors and economic policies. As we shall see, in this framework the behaviors and policies required to facilitate the convergence towards a new equilibrium are not necessarily what might be predicted by the standard analysis.

As a matter of fact, any change in the trade agreement—e.g., a reduction of import duties in one country—should lead to a reallocation of consumption within this country in favor of the goods produced abroad. However, as production takes time, in a first phase supply and demand are no longer harmonized, investment and current production are no longer balanced, so that market and policy adjustments will necessarily take place. Thus, what is at stake is to understand the type of adjustments that may lead to a successful transition allowing the economies to capture the gains associated with the new trade agreement.

The remainder of the paper is organized as follows. Section 2 presents a benchmark model with two countries and two goods. Section 3 proposes some amendments to this model, which mainly consist in introducing a sequential description of both the production and the decision process. By using the model and simulating out-of-equilibrium paths, section 4 analyses the effect

of market behaviors and monetary policy on the employment performance of the two countries. Section 5 concludes.

2 The benchmark model

The model is a standard two-country two goods model, with trade generated by consumer's preferences. We will first introduce the benchmark and describe its equilibrium properties. The time structure and the dynamic properties will be introduced in the following section.

Our economy is composed of two countries, (*n*)orth and (*s*)outh, each with a population of Λ_j ($j = n, s$). Households in the two countries are described by a standard utility function

$$u_j = n_j^{\alpha_j} s_j^{1-\alpha_j}$$

where α_j is the preference accorded to the good produced in the north by consumers of country *j*. Household's resources are given by $R_j = w_j L_j(1 - \theta_j)$ where w_j, L_j and θ_j are wage, employment and the proportional tax rate, respectively. We further assume that each country levies custom duties on its imports, $\tau_j > 1$. As a consequence, demand for good *n* and *s* can be written as

$$\begin{aligned} n_n^d &= \alpha_n \frac{R_n}{p_n} \qquad s_n^d = (1-\alpha_n)\frac{R_n}{\tau_n p_s} \\ n_s^d &= \alpha_s \frac{R_s}{\tau_s p_n} \qquad s_s^d = (1-\alpha_s)\frac{R_s}{p_s}. \end{aligned} \tag{1}$$

Household demand is the only link between the two countries, as firms and labor are assumed to be country specific.

Firms produce with a linear technology (and linear cost):

$$x_j^s = \frac{L_j}{A_j} \Rightarrow c(x_j) = A_j w_j x_j$$

The government consumes only the domestic good; it is assumed to balance the budget, and to obtain its revenues from taxes and custom duties (that are imposed on the value of imports):

$$\begin{aligned} G_n &= \left[\theta_n w_n L_n + (1-\alpha_n) R_n \frac{\tau_n - 1}{\tau_n}\right] / p_n \\ G_s &= \left[\theta_s w_s L_s + \alpha_s R_s \frac{\tau_s - 1}{\tau_s}\right] / p_s \end{aligned}$$

We can thus compute total demand for both goods:

$$\begin{aligned} d_n &= \alpha_n \frac{w_n L_n (1-\theta_n)}{p_n} + \alpha_s \frac{w_s L_s (1-\theta_s)}{\tau_s p_n} + \frac{\theta_n w_n L_n}{p_n} \\ &\quad + (1-\alpha_n) w_n L_n (1-\theta_n) \frac{\tau_n - 1}{p_n \tau_n} \\ d_s &= (1-\alpha_s) \frac{w_s L_s (1-\theta_s)}{p_s} + (1-\alpha_n) \frac{w_n L_n (1-\theta_n)}{\tau_n p_s} \\ &\quad + \frac{\theta_s w_s L_s}{p_s} + \alpha_s w_s L_s (1-\theta_s) \frac{\tau_s - 1}{p_s \tau_s} \end{aligned} \tag{2}$$

To compute the equilibrium, we impose the equality of labor demand and supply (which is constant); this also gives equilibrium production:

$$\begin{aligned} \Lambda_j &= A_j x_j \\ x_j^* &= \frac{\Lambda_j}{A_j}. \end{aligned}$$

Furthermore, we assume a perfectly competitive market, and we take good n as the numeraire ($p_n = 1$). As a consequence,

$$\begin{aligned} p_j &= c'(x_j) = A_j w_j \\ &\Rightarrow \\ w_n^* &= 1/A_n \end{aligned}$$

We can then compute the equilibrium wage in s from either of Eq. 2, as

$$w_s^* = \frac{(1-\theta_n)}{(1-\theta_s)} \frac{(1-\alpha_n)}{\alpha_s} \frac{\tau_s}{\tau_n} \frac{\Lambda_n}{\Lambda_s} \frac{1}{A_n}$$

from which follows

$$p_s^* = A_s w_s^* = \frac{(1-\theta_n)}{(1-\theta_s)} \frac{(1-\alpha_n)}{\alpha_s} \frac{\tau_s}{\tau_n} \frac{\Lambda_n}{\Lambda_s} \frac{A_s}{A_n}.$$

The shares of consumption in the two countries are:

$$\begin{aligned} \frac{n_n}{x_n^*} &= \alpha_n (1-\theta_n) \\ \frac{n_s}{x_n^*} &= \frac{1-\alpha_n}{\tau_n} (1-\theta_n) \\ \frac{G_n}{x_n^*} &= \theta_n + (1-\alpha_n)(1-\theta_n) \frac{\tau_n - 1}{\tau_n} \end{aligned} \tag{3}$$

and

$$\frac{s_s}{x_s^*} = (1-\alpha_s)(1-\theta_s)$$
$$\frac{s_n}{x_s^*} = \frac{(1-\theta_s)\,\alpha_s}{\tau_s}$$
$$\frac{G_n}{x_s^*} = \theta_s + \alpha_s(1-\theta_s)\frac{\tau_s - 1}{\tau_s} \tag{4}$$

The next section introduces the time structure, that will allow to study the properties of the transition once country *n* reduces its tariffs.

3 The time structure

To model structural change in a production economy, four ingredients are required: *First*, Production takes time, and is often characterized by complementarity rather than substitutability in the factors. This is captured analytically by assuming a Leontief production function that uses labor inputted at different times. *Second*, agents have bounded rationality, especially when facing complex environments. Thus, expectations are adaptive. *Third*, no variable can move instantaneously. As in temporary equilibrium models (Hicks 1939; Benassy 1982), prices only adjust between periods; *ex-ante* disequilibria within the period are eliminated by rationing and stock accumulation. *Fourth*, agents are constrained, in their transactions, by financial availability. This sort of credit or cash-in-advance constraint emerges because markets open sequentially.

3.1 The sequence

Each period begins with some state variables inherited from the previous one: first, labor embedded in production processes (as will be clear below); then, stocks that result from past disequilibria; finally, prices and wages. Within the period, we introduce a sequence that helps in defining the time structure of the model.

- Prices and wages change in response to market disequilibria, even if we do not let them clear markets.
- Firms form expectations, and accordingly desired demands (for labor and external funds) and supplies (of goods)
- The first market to open is the financial market, in which demand for external funds may be rationed. Financial constraints cause a rescaling of labor demand.
- Total labor employed is determined once the second market, the labor market opens. Then wages are paid, and production is carried over. Households form their demand based on the actual wage perceived.
- Finally, the product market opens; as in the other markets, rationing may appear.

What follows details this sequence.

Wage dynamics. Wages change early in the period, following previous disequilibria:

$$w_{j,t} = w_{j,t-1}\left[1 + \omega_j \frac{L^d_{j,t-1} - \Lambda_j}{\Lambda_j}\right], \qquad j = n, s$$

Thus ω_j is an indicator of price flexibility; nevertheless, as the equation clarifies, this has nothing to do with market clearing behavior.

Price dynamics. Our formulation for price formation echoes the Calvo (1983) partial adjustment scheme:

$$p_{j,t} = \psi_j p^*_j + (1 - \psi_j) p_{j,t} \qquad j = n, s \tag{5}$$

With low levels of ψ_j, obstacles to free entry and competition prevent the price from adjusting to its optimal (i.e. marginal cost) level.[1]

Expectations. Previous work (Amendola and Gaffard 1998; Saraceno 2004) has explored the role of expectations in this type of model. We argued at length that in a complex environment, when collecting complete information is impossible or extremely costly, agents may find it more convenient to follow an adaptive rule. Long term expectations, that drive investment decisions, are instead more independent of contingent conditions. Consistent with these arguments, in this paper we make different assumptions regarding expectations: short term or *intraperiod* expectations are backward looking. Firms decide how much they wish to produce in the current period, based on the expectations of current demand, which in turn depends on the expected level of employment. The latter is determined as an average between past employment and its "normal" value

$$L^e_{j,t} = \phi L_{j,t-1} + (1 - \phi)\Lambda_j$$

When not at full employment, we have to write expected revenues as the sum of the (expected) wage bill, plus distributed profits (that out of equilibrium may be different from zero):

$$R^e_{j,t} = w_{j,t} L^e_{j,t}(1 - \theta_j) + \Pi_{j,t-1} + H^h_{j,t-1}$$

Notice that we add an additional term (H^h): if households were left with unspent money balances in the previous period, these balances would concur to form current revenues. Expected employment also determines expected public spending:

$$G^e_{j,t} = \left[\theta_j w_{j,t} L^e_{j,t} + \chi_{j,t-1}\right] / p_{j,t}$$

[1] In the Calvo scheme, firms act as price makers, and Eq. 5 has a straightforward interpretation once we assume that, for some reason, only a fraction of firms changes its price each period. In the competitive model, prices converge to the marginal cost following entry by atomistic and price taker firms. Thus we interpret ψ_j as the intensity of factors slowing down entry, introducing frictions in the convergence of price to marginal cost.

where $\chi_{j,t-1}$ are the custom duties paid to the government in the previous period.

Expected demand is then written as

$$d^e_{n,t} = \alpha_n \frac{R^e_{n,t}}{p_{n,t}} + \alpha_s \frac{R^e_{s,t}}{\tau_s p_{n,t}} + G^e_{n,t}$$
$$d^e_{s,t} = (1-\alpha_s) \frac{R^e_{s,t}}{p_{s,t}} + (1-\alpha_n) \frac{R^e_{n,t}}{\tau_n p_{s,t}} + G^e_{s,t} \tag{6}$$

The amount firms will actually attempt to produce depends also on stocks of goods left from disequilibria from past periods, that are brought back on the market.

$$q^e_{j,t} = d^e_{j,t} - o_{j,t-1}$$

This level of production would allow their supply to match expected demand ($x^e_{j,t} = d^e_{j,t}$).

Finally, *interperiod* expectations, are important in determining how much to invest, i.e. how many workers to hire to put in place future production. We assume that these decisions are not influenced by short term factors:

$$L^e_{,j,t+1} = \Lambda_j$$
$$x^e_{j,t+1} = x^*_j$$

Production and labor demand. The two elements of complementarity and time-to-build are introduced by assuming that the production function takes the form of a Leontief function with dated labor input

$$q_{j,t} = \min[\kappa_j l_{j,t-1}, \lambda_j l_{j,t}] \tag{7}$$

with $j = n, s$. Thus, dated and current labor concur in fixed proportions to the determination of production; this formulation is equivalent to assuming capital built by labor in the previous period that fully depreciates. Past "investment" may constrain current production: if firms don't possess the appropriate amount of capital/dated labor, they will not be able to produce as much as they wish, and will only demand the labor they really need:

$$l_{j,t} = \frac{1}{\lambda_j} \min\left(q^e_{j,t}, \kappa_j l_{j,t-1}\right).$$

Labor demand is hence given by the sum of investment and current production needs:

$$L^d_{j,t} = \frac{x^e_{j,t+1}}{\kappa_a} + l_{j,t}$$

The financial sector: demand and supply for external funds. Demand for external funds comes from whatever of the wage bill is not covered by past

profits. Money demand may then be written as the difference between the wage fund and internal resources.

$$F^d_{j,t} = w_{j,t} L^d_{j,t} - \left(\Gamma_{j,t-1} + H^f_{j,t-1} - \Pi_{j,t-1}\right) \tag{8}$$

where Γ is the value of past sales, and H^f denotes involuntary monetary hoardings by firms. Equation 8 embeds the credit constraint: the firm system needs additional funds for whatever of the wage pool it cannot finance out of internal resources. As profits are distributed to households at the end of the period, they are not available for firms.

The supply side behavior in the financial market is not explicitly modeled. In fact, we adopt a very stylized representation, in which the supply of external funds can be interpreted as monetary policy at large:

$$F^s_{j,t} = \mu_j F^d_{j,t} + (1 - \mu_j) F^s_{j,t-1}$$

Larger values of the parameter μ will capture a more accommodating monetary policy, which gives the firm system the financial means it needs, while credit constraints will be more important at low levels of μ.

The credit market is the first to open. This modeling trick allows us to introduce implicitly a financial constraint. If firms are unable to access the needed external funds, they will not be able to carry out their planned investment. The parameter μ, which we leave exogenous, is the crucial variable to help us understand the effect of credit rationing on the path followed by the economy.

The labor market. If $F^s_{j,t} < F^d_{j,t}$, then firms will not be able to hire as many workers as they desire. Total labor demand is scaled down to

$$\hat{L}^d_{j,t} = \frac{F^s_{j,t} + (\Gamma_{j,t-1} + H^f_{j,t-1} - \Pi_{j,t-1})}{w_{j,t}}$$

(hats denote constrained quantities). In the simulations below we assume that firms first reduce investment and current production in the same proportion.

The second market to open is the labor market. If $\Lambda_j > \hat{L}^d_{j,t}$ we have unemployment, otherwise a human resource constraint appears. Effective employment is determined by the short side of the market:

$$\Lambda_j > \hat{L}^d_{j,t} \Rightarrow L_{j,t} = \hat{L}^d_{j,t}$$

$$\Lambda_j < \hat{L}^d_{j,t} \Rightarrow L_{j,t} = \Lambda_j$$

Production and the goods market. Once the labor market is closed, wages (and taxes) are paid, and production is carried on. The last market to open is the goods market. Supply depends on what happened previously in the sequence:

$$x^s_{j,t} = \min[\kappa_j l_{j,t-1}, \lambda l_{j,t}] + o_{j,t-1}$$

Notice that $l_{j,t}$, the quota of labor allocated to current production, embeds all the constraints that may have arisen along the sequence. On the

demand side, actual employment determines household's and government resources.

$$R_{j,t} = L_{j,t} w_{j,t} (1 - \theta_j) + \Pi_{j,t-1} + H^h_{j,t-1}$$

$$G_{j,t} = \left(\theta_j w_{j,t} L_{j,t} + \chi_{j,t-1}\right) / p_{j,t}$$

Total demand is obtained by substituting expectations with R_j and G_j in Eq. 6. The short side rule applies to the goods market as well:

$$d^s_{j,t} > x^s_{j,t} \Rightarrow H^h_{j,t} > 0$$

$$x^s_{j,t} > d^d_{j,t} \Rightarrow o_{j,t} > 0$$

In case of excess demand, households and government are rationed proportionally. The period ends at this point. The state variables that link it to the other periods are the stocks H and o, the wage and price level w, and p, and productive capacity (the quantity of labor "stocked" to carry on production in the following period.

The next section will investigate, by means of simulations, the dynamics followed by the economy after a tariff reduction in country n.

4 Increasing the degree of openness: a simulation experiment

We assume country n to be more closed ($\alpha_n < \alpha_s$), and more productive ($A_n < A_s$), so that in steady state it has larger production ($x^*_n > x^*_s$). We will further assume that in n most of the labor input is used for construction, while the opposite holds for s. In other words, production in n is more capital intensive ($\kappa_n/\lambda_n < \kappa_s/\lambda_s$). The steady state level of w_s depends on government parameters. We assume that the initial tariff rate is equal in the two countries ($\tau_n = \tau_s$), and that government size is larger in n ($\theta_n > \theta_s$). This yields a lower steady state wage and government share in s.

The steady state effect of the shock. The shock is a reduction of tariffs in n ($\tau_n \downarrow$). This implies that in the new steady state the equilibrium wage of s w^*_s increases, in country n the share of government decreases, and the demand of good n by s consumers increases by the same amount. The steady state share of n consumers remains unchanged (see Eqs. 3 and 4). Notice also that this is a pure demand shock, and that there is no steady state effect on the supply side of the economy. Production (and productivity) remains unchanged.

Employment, market behaviors and policies out of equilibrium. The immediate effect of a tariff reduction in n is an increase of expected (and actual) demand for good s (that will cost less to n households, see Eq. 1). Nevertheless, this will not be matched by an increase in supply, because the inherited stock of capital constrains current production (Eq. 7). Thus, the only immediate effect of the shock will be rationing in the s market: Consumption by n households will not increase to the new equilibrium level, and consumption by the s

government and households will actually decrease. At the end of the period, the *s* government and households in *n* and *s* alike, will have unspent money balances. At the same time, customs revenues for *n* will drop because of the reduction in τ_n.

In the following period, unspent balances will fuel increased demand for both goods. In the *n* market, nevertheless, this will not compensate the reduction in public spending due to lower government revenues: labor demand will decrease, and unemployment will appear in country *n*. Thus, the capital constraints and the absence of market clearing make the demand shock spill to the supply side of the economy, and cause a distortion in the balance between investment and current production.

Whether the demand shock effect on the supply side is temporary or not, crucially depends on the reaction of the system to the imbalances. What happens next, if and how the shock is reabsorbed, depends on a number of adjustment parameters which, in previous research Amendola and Gaffard (1998), Amendola et al. (2004), Saraceno (2004), Gaffard and Saraceno (2007), were proven to affect the transition. In particular, the variables that have an important impact are the institutions governing price and wage changes (ψ_j and ω_j), and the monetary policy stance (μ_j). The former govern the speed at which prices converge to the new equilibrium level, while the latter affect

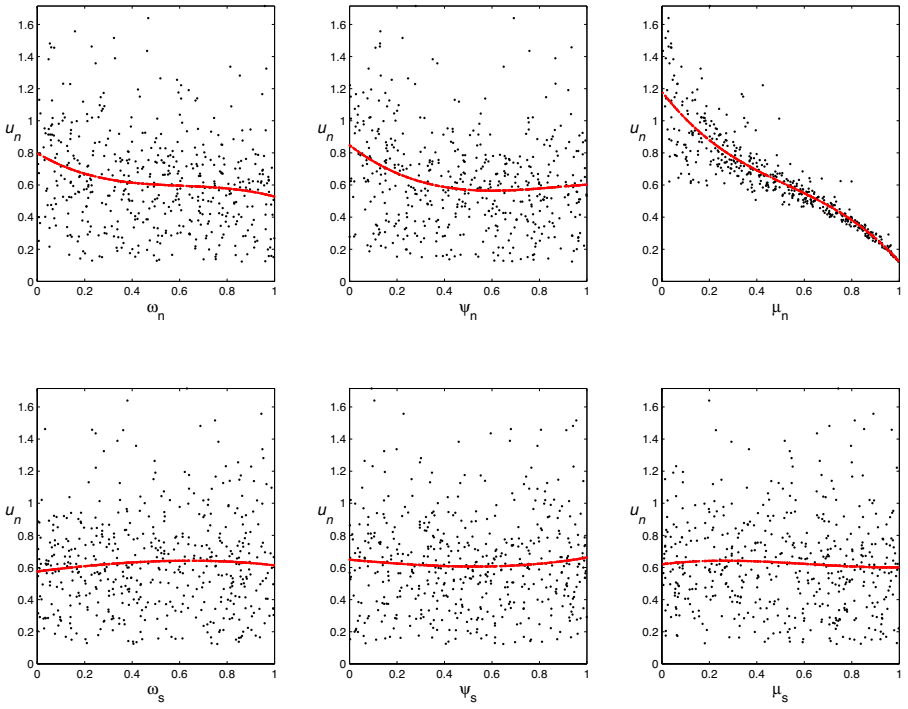

Fig. 1 Monte Carlo experiment. Scatter plot of unemployment in country *n* against the randomly drawn parameter values. Third order approximating polynomials are also shown

the capacity of firms to finance investment and to recover the coordination between capital and current expenditure.

The only way rigorously to assess the joint influence of these variables is to investigate the statistical properties of a large dataset of simulations, through a Monte Carlo experiment. We made 500 random draws of the six parameters ψ_j, μ_j, and ω_j ($j = n, s$), and we recorded average unemployment in the two countries over the run. Thus, we constructed a matrix of 500 rows, each consisting of the vector $[\bar{u}_n\ \bar{u}_s\ \omega_n\ \omega_s\ \psi_n\ \psi_s\ \mu_n\ \mu_s]$. This matrix (from which we eliminated the outliers) constitutes our artificial dataset. Figures 1 and 2 help make a preliminary evaluation of the influence of institutional parameters. They show the scatter plots of average unemployment in country n (Fig. 1) and s (Fig. 2) respectively, against the randomly drawn parameter values.

The first interesting thing to note is that, in both countries, unemployment remains on average fairly low in most of the runs (the few outliers eliminated had unemployment rates above 40% in both countries). In what concerns country n, Fig. 1 shows that the main driving force behind the unemployment pattern is domestic monetary policy (μ_n), while the other domestic variables have more ambiguous effect. The other information that we can gather from the figure is that foreign variables seem to have a limited effect. Figure 2 shows

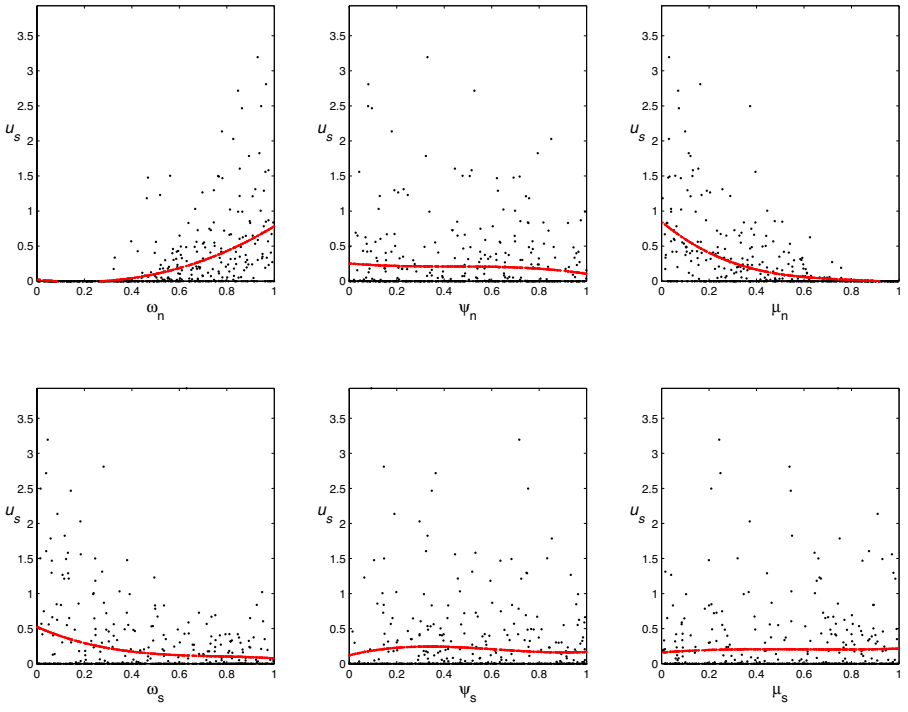

Fig. 2 Monte Carlo experiment. Scatter plot of unemployment in country s against the randomly drawn parameter values. Third order approximating polynomials are also shown

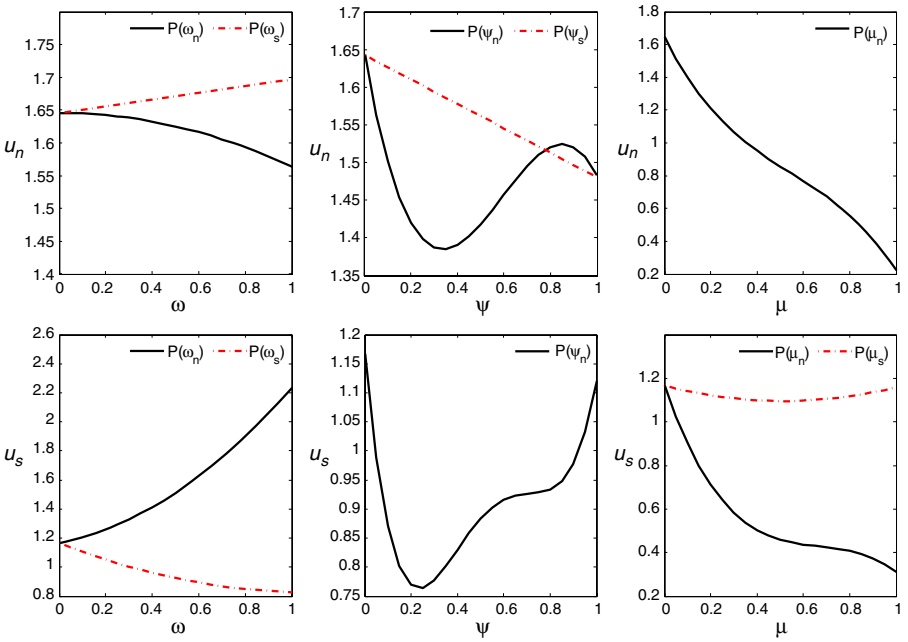

Fig. 3 Monte Carlo Experiment. Plot of OLS regression coefficients. Country n (*upper row*): $\bar{u}_n = 1.65 - 1.8\psi_n - 0.16\psi_s - 2.8\mu_n + 0.05\omega_s + 3.66\psi_n^2 + 3.44\mu_n^2 - 0.08\omega_n^2 - 2\psi_n^3 - 2.1\mu_n^3 - 0.36\psi_n\omega_n - 0.1\psi_n\omega_s + 0.2\psi_s\mu_n + 0.32\mu_n\omega_n$. Country s (*lower row*): $\bar{u}_s = 1.17 - 4.26\psi_n - 3\mu_n - 0.28\mu_s + 0.3\omega_n - 0.63\omega_s + 0.29\omega_s^2 + 14.9\psi_n^2 + 4.4\mu_n^2 + 0.4\mu_s^2 + 0.76\omega_n^2 - 19.4\psi_n^3 - 2.2\mu_n^3 + 8.7\psi_n^4 - 0.57\psi_n\omega_n - 0.35\psi_s\omega_n$

that we are unable to say the same for country s. In this case, the institutions of the other country play an important role, in particular ω_n and μ_n.

Nevertheless, Figs. 1 and 2 can only give a first impression, because scatter plots do not take into account the interaction between institutional variables. Thus, the next step was to use the dataset to run two regressions, using as dependent variables $\bar{u}_n$ and $\bar{u}_s$, and as regressors the institutional parameters (including cross terms and higher order terms). The results are shown in Fig. 3, where each of the plots is obtained by taking the relevant regression coefficients, and using them to draw a polynomial in that particular variable. This allows to "clean" the relationship at hand, by isolating the effect of each regressor.[2] Figure 3 shows that an accommodating monetary policy in country n has positive effects on unemployment in both countries, while the effect of μ_s is much less important. This is because investment needs are much larger in country n (where the capital/labor ratio is higher) than in s. Thus

[2]The presence of cross terms in the regressions would in principle call for tridimensional plots with the two relevant regressors on the x and y axes, and unemployment on the z axis. In fact, all the cross coefficients are quite small in size, and do not alter the picture, while making it much less readable. This is why we chose to neglect them.

accommodating monetary policy is important in n, where it allows investment, and only indirectly (through trade) in country s.

The other two sets of parameters also show clear patterns. First, domestic unemployment is negatively related to domestic wage flexibility, but positively related to wage flexibility in the trading partner. This happens because increasing domestic flexibility has two effects. On one side, it allows a reabsorption of unemployment (increasing the number of workers that can be hired with a given amount of resources); and, on the other, it reduces the wage fund itself, and hence aggregate demand. The simulations show that the former effect dominates. When flexibility is increased in the foreign country instead, the former effect is by definition shut off, and we are left only with the negative effect on aggregate demand (see e.g. Amendola et al. 2004). In general, though, the effect of ω_j on unemployment is quite limited in size.

Finally, the price setting mechanism that matters most is the one of country n, which, broadly speaking, has a u shape. If entry is fast, and price converge to marginal cost quickly (high ψ_n), unemployment is high. A similar thing holds if the pressure on prices to change is weak (low ψ_n). The optimal (in terms of unemployment) value of ψ_n lies in the middle, where change can take place, but not at an excessive rate, which would be disruptive.

5 Conclusion

Opponents of globalization only focus on disturbances, which are the unavoidable consequence of an increasing degree of openness, without really considering the nature of these disturbances. Partisans of globalization only focus on the properties of a new and superior equilibrium without considering what happens along the way. In our perspective globalization can be profitable to all partners, but only if relevant behaviors and policies take place during the transition process, that is, if domestic distortions can be absorbed. Our experiments show that wage flexibility and neutrality of monetary policy cannot be unequivocally considered as good recipes. Furthermore, market behaviors and policies cannot be defined as if each economy were closed. The interdependence among countries has to be taken into account in designing institutions that are adapted to manage the globalization process.

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