Dogs That Sometimes Bark (and Bite):
Globalization and Organized Labor in Industrialized Countries

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Abstract:
Existing controversy over the constraint, inspiration or irrelevance of globalization for organized labor has said little about how threat of exit and competition may have effects distinct from actual flows, and how different faces of trade and investment globalization may have varying effects for different faces of labor organization. This paper addresses these silences. It argues that trade and investment openness towards less-developed countries (LDCs) is likely to yield more constraint on union organization, power and bargaining than openness towards OECD economies. It also argues that openness is likely to affect works councils much differently than unions, and that LDC openness may in many cases be less of a threat to works council bargaining power than intra-OECD openness. Finally, the paper argues that the exit options or "openness" to investment and trade may have stronger effects on labor power and organization than flows alone, and considers how "exit" and "voice" interact in labor relations. The empirical development and testing of these claims combines quantitative and qualitative study of globalization and labor organization. The first is study of how openness as well as flows, OECD as well as LDC trade and investment, affect union density in 16 countries between 1961 and 1997. The second qualitatively studies how FDI openness affects the works council bargaining over issues of work time, payment system and non-standard employees for eight plants in Germany, capturing variation in skill-level, product profile and levels and kinds of outward FDI and other openness.
A decade of popular and academic obsession with globalization has lavished attention on most every facet of international economic openness and its consequences, including how openness impacts the organization, power and bargaining of unions and other labor representatives. But rather than yielding consensus and clarity, we have neither. Existing knowledge of how globalization affects labor remains in a state of undeveloped controversy between those emphasizing that openness either undermines, or opens new opportunities for, or doesn't much matter for labor organization.

"Globaphobia" in the Left and mainstream press has its academic counterparts in research that emphasizes how openness undermines labor organization and prerogatives by eroding the market power of less-mobile and -skilled workers relative to footloose capital and employers. Economic openness may do so either by lowering the level of demand for (especially less skilled) workers relative to capital, or by increasing the elasticity of demand for these workers by increasing capital's exit options that ease adjustments in capital-labor ratio in production. This strengthens the bargaining power of employers to set the terms of work in terms of wages, working conditions, and worker representation, and any public policies relevant to workers. This in turn hurts the ability of unions to represent existing and organize new members. The evidence for such union pessimism includes broad if superficial correlation between rising globalization and declining union membership and bargaining centralization in most countries in recent decades. But some econometric studies have connected declining union density to trade penetration, among other economic and political factors, while others have found openness to correlate negatively with union wage premiums -- a possible index of union strength and attractiveness.

Although less commonly aired in the popular press, a second line of research suggests that globalization might strengthen rather than weaken labor organizations. Some scholars suggest that precisely because openness may make some workers more insecure, these workers may turn to unions to mitigate these risks. More commonly, some emphasize that employers, especially in "coordinated market economies," may use their increased exit options not to weaken worker organization, but to deepen such organization to reap the productivity, labor peace and other benefits of thick union and works council institutions. This sort of approach dove-tails with broader claims that comparative advantage in open production should give comparative institutional advantage to some highly unionized and organized national settings. Finally, some research emphasizes changes in the composition of labor organization that might benefit

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1 Adamson and Partridge 1997; Addison et.al. 2002; Western 1997; Choi 2001.
2 Streeck and Visser 1998.
3 Openness might constrain unions by fragmenting skills, demanding more flexible work settings that in turn complicate union organizing efforts (Western 1997; Piore and Sabel 1994).
4 C.f. Iversen 1996.
5 Western 1997.
6 Choi 2001, for instance, finds a significant and strong negative correlation between FDI (measured as employment in foreign affiliates as percentage of total industry employment) and various measures of union wage premiums at the two-digit SIC code level of US industry.
7 Rodrik 1998; Checchi and Luciforera 2002; Scruggs and Lange 2002.
their wage position, perhaps strengthening their organization.\textsuperscript{10} This perspective finds empirical support in qualitative studies where unions and employers have deepened their cooperation amidst competitive pressure, in rising divergence rather than convergence in Left-labor power, and in some econometric studies where trade (though not FDI) correlates positively with union density.\textsuperscript{11}

The most popular perspective among comparative political economists, however, is that globalization doesn't much matter for OECD labor organizations. The logic is sometimes that levels of openness are not high enough or primarily of a form (based on factor price differences) to have strong distributional consequences for workers. But mostly, the skeptical view emphasizes that the effects of openness for labor pale in comparison with other political economic conditions -- such as Left party strength, laws protecting union access to workplaces, centralized organization of employers, and union control over administration of unemployment or other benefits (Ghent system institutions).\textsuperscript{12} Evidence supporting this perspective include historical studies revealing little connection between openness and industrial relations development,\textsuperscript{13} descriptive statistics underscoring the divergence in union density that belies globalization-induced convergence,\textsuperscript{14} and econometric treatments where openness has low or no significance.\textsuperscript{15}

Adding to the complexity of this debate, some recent work has identified conditions under which openness might either strengthen or undermine labor organization. Golden and Londregan (1998), for instance, suggest that openness should

\textsuperscript{10} The claims here are that openness may raise union wage premiums by raising the elasticity of labor demand in non-unionized settings while lowering relative elasticity in unionized settings, as unionized employment shifts to more capital-intensive firms where highly specific capital investments lower the elasticity of labor demand -- emboldening union wage militancy (Lawrence and Lawrence 1985; Bratsberg and Ragan 2002; Staiger 1988). Higher union wage premiums does not mean, however, a generally stronger union setting, because higher premiums might come with a price for worker organization. Although higher union wage premiums capture higher marginal value and possible organizing effectiveness of unions, research has shown increases in such premiums to be correlated with decreases in employment and a number of measures of competitiveness (e.g. R&D spending). Research has also, more interestingly, suggested that higher wage premiums also correlate with lower union densities (Linneman et.al.1990), plausibly because higher premiums increase employer opposition to union organizing, possibly overwhelming the positive unionizing benefits where union membership promises higher wages.

\textsuperscript{11} See, for instance, Checchi and Lucifora 2002 find a significant positive effect without interaction terms but with country and year effects; Scruggs and Lange 2002 find positive effects with institutional interactions, where the positive result applies significantly to at least the modestly and most coordinated institutional settings.

\textsuperscript{12} Western 1997; Checchi and Lucifora 2002.

\textsuperscript{13} Ebbinghaus 2000. Hassel and Schulten 1998, for instance, describe the pattern of collective bargaining in the German metal industry during the first half of the 1990s as “concession bargaining” and explain this development with the membership problem faced by IG Metall and Gesamtmetall without however relating in any way membership problems to trade and FDI openness.

\textsuperscript{14} Checchi and Visser 2001.

\textsuperscript{15} And among the few quantitative studies to explicitly consider what role globalization plays in shaping union fortunes, Checchi and Visser (2001) find little significant effect for capital openness (as a control in but one of their specifications), and Golden 1999 finds little evidence that trade or capital openness strongly affects density, centralization, or other measures of labor organization.
constrain density but actually centralize union representation and coverage -- as wage-differentiating effects of openness create incentives to centralize confederal representation. Scruggs and Lange (2002) and of Oskarsson (2002) consider the role of labor institutions in mediating the effects of openness.\textsuperscript{16} Here the logic is that investment and trade openness have varied consequences for union density, depending on the depth of various pro-labor institutions, such as Ghent-system administration, corporatism, bargaining centralization and union access to workplaces. In more institutionally embedded labor movements, globalization should raise union density, while more decentralized, dis-embedded movements should see their density undermined by rising openness. The empirical support is mixed,\textsuperscript{17} but both find evidence that institutional settings of different country-periods appear to mediate the effects of globalization.

Despite clarifying plenty of the complexity of the connections between globalization and labor organization, this remains a kind of chaotic controversy. Partisans to this debate often offer incomplete logic, where the logical chain connecting economic openness or flows to structure or activity of organization labor is often ambiguous. It isn’t often clear, for instance, how challenges for workers will percolate up to challenges rather than opportunities for their union representatives. The empirical face of the debate, meanwhile, is also scattered, where the conflicting qualitative and quantitative evidence surrounding the different positions is partial without being cumulative. Econometric studies, for instance, often say little about why and how their findings differ from previous studies -- partly because the claims about the role of globalization is a side-line to the primary focus of these studies.

More importantly, for all its nuance, the debate has not yet given attention to very basic features of the globalization-labor relationship. First, although we know something about how domestic institutions might mediate whether globalization constrains, spurs or has little effect on organized labor, we have little work on the more basic issue of how different faces of trade and investment openness might have varying effects for different kinds of labor representation. Should trade or investment with different parts of the world yield the same kinds of problems and opportunities for unions, and should the implications be the same for different levels of labor organization, for instance works councils as opposed to unions? Second, existing empirical work focuses mainly on correlation between trade, financial or investment flows, and labor bargaining or organizational outcomes, ignoring how threats of exit and competition may affect industrial relations without showing-up as flows. Ignoring such "dogs that don't bite" may introduce bias in existing scholarship in the direction of underestimating the effects (positive or negative) of the potential as well as actual competition and exit associated with globalization.

What this all adds up to is a situation where we don't really know what globalization means for labor. And this is more than a theoretical shortcoming, because globalization is likely to continue despite current recession and "wars on terrorism," and

\textsuperscript{16} Scruggs and Lange 2002; Oskarsson 2001.
\textsuperscript{17} For instance, higher FDI constrains density in more generally embedded labor movements, while having little constraining effect on decentralized movements; higher trade raises density almost regardless of embeddedness; and higher capital openness constrains decentralized but not more embedded settings. These are interesting results, of course, but not clearly in line with the particular argument.
because a growing body of research reveals how important organized labor is to the economic success and equity of different political economies.\textsuperscript{18}

To address these shortcomings, this paper offers arguments and evidence of how different faces of openness can have varying implications for different levels of organized labor, involving threatened as well as actual employer exit and market competition. The main argument is that globalization has effects for organized labor that not only vary with domestic institutions but also with different kinds of openness and aspects of worker organization. First, we argue that developing versus developed country openness tends to be more constraining of union density and power than openness with other developed countries. Inter-industry trade and vertical FDI, most prevalent in relations between OECD and non-OECD economies, have sharper distributional effects for labor versus capital and for less- versus more-skilled labor than do the intra-industry trade and horizontal FDI dominating intra-OECD openness. The former (and not necessarily the latter) entail changes in the level of demand, hence relative factor prices, that spell basically bad news for workers relative to capital. And less obvious, these also imply bad news for unions due to up-skilling that complicates organizing, and due to wage dispersion that can undermine union solidarity and strength. On top of the general threats of capital and employer exit that both OECD and non-OECD openness share, these added costs make low-wage openness more constraining for labor organization.

Second, we draw attention to how globalization affects works councils in ways that are much different than for unions, given the different skill profiles, substantive focus, and level of economic organization differentiating these two levels of organized labor. The result is that some aspects of economic openness might threaten unions while not worrying, or even inspiring, works councils (and vice versa). For instance, low-wage vs OECD globalization may tend to hurt and be more threatening to national, sector or industry-level unions due to up-skilling and wage dispersion, while for more high-skilled works councils the opposite is true. For instance, low-wage openness can yield up-skilling that might hurt union representation at the plant level -- depending on the skill profile of the union in question -- but leave intact or even strengthen the employment and bargaining position of the skilled incumbent workers and their works-councils representatives. Relatively speaking, these works councils representing factories with disproportionately skilled workers may fear high-wage openness more, because it offers fewer plausible rewards while bringing continued threat of exit.

Third, we focus on trying to distinguish globalization's effects for organized labor even where "dogs don't bite" -- that is, even where openness is manifested in the possibility or threat, rather than actual increases, in FDI, portfolio or trade flows. This requires finding quantitative and qualitative measures to capture such a distinction. Our hypothesis is that broader measures capturing possibility as well as actuality of exit or competition should reveal stronger effects for labor organization than measures focused only on flows. More tentatively and inductively, moreover, we consider how "voice" ("barking") in threatening exit may relate to or swing free of actual "exit" ("biting") through outgoing investment or import.

The paper's empirical contributions are quantitative and qualitative evidence to develop and test these basic claims, focused on the effects of intra-OECD versus non-OECD trade and investment for unions and works councils. First, we analyze a cross-
sectional time series panel of 18 OECD countries between 1961 and 1999 to test for the union density effects of openness. In addition to measures of trade, FDI and portfolio flows, we include frequently-used measures of financial openness to capture legal constraints on direct as well as financial investment, and include new measures of trade policy "restrictiveness" to capture trade protectionism. Second, we report preliminary findings from detailed qualitative study of works council bargaining and practice over issues of work time, payment system and non-standard employees for eight plants in Germany, capturing variation in skill-level, product profile and levels and kinds of outward FDI and other openness. These go well beyond the quantitative work's very rough and indirect measures of openness as opposed to flows, revealing how works council concessions (militancy) or organizational weakening (strengthening) may or may not take place even where the plant-level or sectoral FDI or trade setting is more closed. They also reveal how different kinds of FDI might variably affect works council bargaining – differently than the effects for unions. And they make it possible to consider how voice may relate to exit in shaping industrial relations, something the quantitative work cannot reveal.

Such a combination of empirics provide preliminary support for the claims that different faces of openness have varying effects for different faces of labor organization - through both threats of exit and competition as well as through actual flows. Both this quantitative and qualitative evidence support the view that trade, FDI and portfolio flows have modest and mixed effects for union density and works council activity in general. But robust to a range of estimation techniques, the quantitative evidence corroborate our claim that unions have more to fear from openness with developing than developed countries. This is captured by more negative (or at least less positive) correlation between union density and low-wage trade and FDI, than between density and high-wage trade and FDI. These estimations also offer more qualified evidence for the expectation that openness measures may have stronger effects than measures of flows. The works council case studies, meanwhile, suggest that high-skilled works councils (unlike unions at the plant level) have more to fear from intra-OECD openness. They also illuminate interaction of exit and voice in the organized labor's globalization politics, suggesting that barking, or voice, may be loudest when there is doubt (in everyone’s minds) about biting, or exit.

1. Argument: Faces of Globalization, Labor, and Dogs that Sometimes Bite

Experience and intuition suggest a variety of reasons to expect varying effects of different faces of globalization for different faces of labor organization, sensitive to threats of, as well as actual, exit and competition that may connect openness to labor organization. They suggest, in particular, varying effects depending on low-wage versus high-wage trade and investment openness; and for unions versus works councils, where threats have stronger, perhaps different effects than do actual flows and competition.

Low-wage Vs. High-wage Openness. Although trade might well have different effects for union density than does direct or portfolio investment, we focus first on the distinctive effects of high-wage versus low-wage openness in both trade and
We suspect that from the perspective of OECD-country labor movements, trade and investment with non-OECD countries are likely to be more constraining for union density and bargaining power than high-wage trade and investment openness. The logic builds mainly on economics literature on the effects of openness for level and elasticity of demand for workers, and what this means for a tendency to unionize. From the perspective of OECD labor movements, openness towards both OECD and non-OECD economies imply exit options for capital that comparably increase the elasticity of demand for labor, in turn increasing the bargaining power of employers, net of changes in the level of demand. They are, thus, equally a problem for workers and the bargaining position of unions, but with ambiguous implications for union density: potential members might be more attracted to unions given the higher insecurity, but less so given lower achievements of unions.

But compared with intra-OECD trade and investment, openness and flows with non-OECD countries are likely to have stronger effects on the level of demand for labor that imply sharper distributional effects for labor relative to capital as a whole, and for less skilled relative to high skilled labor. The reason is amply discussed in the economics literature. Trade with developing countries implies more inter-industry trade and investment between countries to exploit differences in factor profiles, while the intra-OECD openness implies more intra-industry ties whose basis lies in increasing returns to scale and other conditions. This implies that low-wage openness will have sharper distributional consequences by increasing the relative demand for the abundant factor (hence good news for high-skilled workers and capital), and decreasing the relative demand for owners of the scarce factor (bad news for less skilled workers in particular). These sharper distributional consequences, in turn, imply more income inequality and up-skilling via low-wage than via intra-OECD globalization.

What this double effect means for labor movements as a whole and for union representation, especially density, is not obvious. The effects of changes in the level of demand may be bad news for labor in general, but good news for the market and workplace power enjoyed by highly skilled workers -- perhaps improving the organizing chances of unions in high-skilled industries. In any event, the uncertain distributional consequences for unions are even more ambiguous for union membership. Declining bargaining power of (some) unions might dissuade vulnerable workers from seeking union membership, but the greater vulnerability of workers in general might persuade more to see union membership through a logic of compensation. Which tendency prevails is theoretically uncertain.

But two other effects of declining relative demand for less-skilled labor more unambiguously undermine union organization. First, the up-skilling associated with inter-industry trade and vertical FDI (and less so with intra-industry trade or horizontal FDI) lead to a shift towards more white-collar work categories and more small-scale workplaces that are culturally, historically, technically, and economically harder to organize into unions than lower-skill categories. This, in turn, is bad news for union density and for the bargaining positions of unions. Second, the wage dispersion wrought

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19 Even though one could argue that the effects of FDI on elasticity and bargaining power are likely to be more visible and direct than effects of trade, it is not clear that this would imply more constraining FDI effects for density, since labor market insecurity might well (among other consequences) inspire some compensatory flocking to unions. We see this issue as an important problem for further research.
by openness should complicate union organizing and bargaining regardless – even in the face of compensation demands for union representation. There is controversy over how much trade and investment based on factor-price differences raise high-skilled wages and reduce less-skilled wages, but the tendency towards some such dispersion will be bad for the solidarity of union movements and for the goals of cross-skill wage compression common in many such movements. This in turn is likely bad news for collective action among workers, hence for union density and bargaining power. If we assume that these effects are more a problem with non-OECD trade and investment openness than with intra-OECD openness, then the former spells more difficulty for union density and power than the latter -- where only the general negative effects due to demand elasticity apply, and where these effects may even spark union-compensation demands that imply a more positive relation between such openness and labor power.

**Works Councils Vs Unions.** Whatever differences exist across kinds of globalization, it is also important to recognize that the effects of globalization are likely to differ across different levels of organized labor. This is already obvious and acknowledged with respect to how globalization will likely weaken industry unions disproportionately representing less-skilled workers, while strengthening unions disproportionately representing highly-skilled workers. But we want to draw attention to the differences for an extremely important and under-analyzed level of worker organization in many countries: company and factory-level works councils. These generally company and factor-level organizations are an import pillar of labor representation common in many European countries, responsible mainly for collectively negotiating largely non-wage features of the labor contract -- such as issues of working time, flexibility of working time, structure of payment system, and treatment of non-standard workers (part-time, temporary, etc.). In these respects, they are different from unions in their level of representation -- closer to the plant unit -- and in the content of their responsibilities -- non-wage or employment policy related. These differences, we argue, suggest that globalization will impact works councils generally differently than unions.

At the most general level, we suspect that the increased bargaining power afforded to owners of capital may be less constraining for works councils than unions, on the assumption that such company-level work organizations often focus on "less-zero-sum" issues less objectionable to a wider swath of employers than union wage or employment demands. Further, the plant-level of works councils and their legal backing imply that any up-skilling that might result from openness may well undermine union density and power as employment profiles move to the traditionally harder-to-organize trades and professions. But these same changes should not directly impact the integrity or strength of works councils.

More importantly, the firm- or plant-level focus of works councils implies more variation in the sector and skill profile of works councils, such that openness is likely to have much more differential effects across different works councils -- with more immediate and directly felt effects for exposed-sector councils than sheltered councils, and with positive effects for skilled-oriented councils and negative for less-skilled. This implies that developments in trade or investment openness may well affect unions and works councils differently. For instance, the more constraining effects of low-wage vs high-wage trade and investment for OECD unions might have the opposite effects for
high-skilled oriented works councils. For unions, low-wage openness may be more threatening even at the plant level, as up-skilling within a fixed level of employment may imply net losses for union membership. But for works councils, stable levels of employment matter more than skill mixes, and low-wage openness may yield up-skilling that reward the firm's employees. In contrast, the generally bad news of elasticity effects accompanying both high-wage as well as low-wage openness may thus make high-wage openness relatively more feared – as the resulting enhanced bargaining power of employers overshadows any possible benefits of low-wage openness.

Dogs that Don't Bite. Finally, to understand and test both these dis-aggregated as well as aggregated effects of openness for labor organization, we try to take the role of threats as well as actual fact of globalization flows, and of the interaction of exit and voice implied by both. This means that in the quantitative and qualitative studies below, we consider available measures of openness, of barriers to, as well as of trade and investment flows. In the quantitative work this involves often-studied capital openness indices, but from the point of view of how this can encompasses threats of investor/employer exit through both portfolio and direct investment. It also involves use of measures of trade protectionism, better than simple weighted tariffs. And it also involves considering how such measures that encompass both the possibility and actuality of exit and competition may have different effects for labor organization than do flows. Although the issue is complicated, our initial hypothesis is that these measures – to the extent that they are accurate and to the extent there are real positive or negative labor organization effects of openness – should elicit stronger, more negative results for labor power than the flows measures by encompassing threats as well as actual facts of openness.

In any event, such simple correlation, especially with imperfect quantification, is no substitute for understanding the logic and perceptions of the actors involved in the politics that might connect openness to labor organization and strategy, can only be captured through qualitative study. Only there can one identify through direct measure of perceptions, and through the details of narrative and process tracing, how openness and flows affect industrial relations. Furthermore, the quantitative work cannot capture the possible interaction of exit and voice in labor’s globalization politics. Here again, we need to search for what actors say and believe, missing from case or large-n correlation.

2. Quantitative evidence

To illustrate and test these arguments, we begin with quantitative analysis of union density and globalization. Although union density is but one face of labor organization, it is the most general and basic measure of labor organizational power, and thus an obvious place to begin. Our study analyzes a cross-sectional time series panel of 16 countries and as many as 39 years (1961 to 1999), though missing values for some parameters for some country-years yield significantly smaller panels for some of the

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20 The countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and the United States. Large numbers of missing values and series breaks for Ireland and New Zealand on a range of the variables, especially LDC vs. OECD openness, require dropping these countries from the analysis, preferable even than multiple imputation for missing values.
We estimate the effects of a range of measures of trade and investment globalization for union density. The emphasis is on testing two broad hypotheses: (1) that non-OECD trade and investment constrain union density more (or stimulate less) than do intra-OECD trade and investment; and (2) that trade and investment openness (the presence or absence of barriers to trade or investment) may have stronger or different effects for density than measures of flows. The study is, of course, very limited in the aspects of labor organization it attempts to analyze (treating other institutional measures of labor organization, such as bargaining centralization, at most only as controls). And it is also limited its measures of openness as opposed to flows -- only scratching the surface of measuring barriers to trade and investment. But the narrow focus here still directly addresses hitherto unstudied parts of the nexus between labor and globalization.

2.1. Variables: Density, Globalization, and Controls

The dependent variable we focus on is net union density – total union membership (less self-employed, student and retired members, etc.) as a percentage of total dependent labor force – a basic measure of labor power. This measure is one for which we have reliable enough data for enough country-years to judge the hypothesized varying effects of globalization. The latter we break down into a range of independent variables: aggregated measures of trade and investment openness and flows, and disaggregated measures of trade and FDI flows. The aggregate measures of flows are the following: (1) trade flows, imports plus exports as a percentage of GDP; (2) foreign direct investment flows, inflows and outflows as a percentage of GDP; (3) and portfolio flows, assets and liabilities of international bonds, and equities as a percentage of GDP.

In this paper, we have no commitments to the debate about the union density or other labor organization effects of these general aggregates -- that they may constrain, spur or have little effect on density.

The aggregate measures of openness attempt to find measures of barriers to trade and investment independent of actual flows. For portfolio as well as FDI flows, we draw on Dennis Quinn's widely used 14-point scale of capital openness (0 most closed, 14 fully open) which measures the range of restrictions on capital account inflows and outflows as judged by IMF financial restrictions reports. For trade, we use a recently compiled measure of trade restrictiveness developed by Hiscox and Kastner, based on country-year fixed-effects residuals from gravity models of trade flows. This is certainly far from a fully accurate measure of trade barriers, but it captures the range of non-

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21 We conduct the estimation in the presence of unbalanced panels and through the use of listwise deletion, rather than through various forms of imputation. This we will redress in the first revision of the paper as time allows.
22 Original data from Jelle Visser. From 1961 through 1994 we get the data on net density from the Golden, Lange Wallerstein dataset (Golden et.al. 1999). For later years we use Ebbinghaus and Visser 2000 and updates, and from Robert Franzese.
24 IMF Balance of Payments Statistics, various years.
25 Ibid.
26 Quinn and Inclan 1997.
Our general hypothesis is that these measures of openness capture threats as well as actual exit and competition, and should thus have stronger effects, positive or negative, than flows measures.

Our dis-aggregated measures are total trade and FDI flows with OECD and non-OECD (non-OPEC) countries. The trade numbers are LDC trade flows and OECD trade flows (measured as percentages of GDP) and are available for the lion's share of our country-years. And the FDI numbers are outflows to LDCs (LDC FDI outflows) and to OECD countries (OECD FDI outflows). We focus on outward flows rather than outward stocks, which have many more missing values and series breaks than do the flows numbers. Such disaggregated and comparable FDI flows are available only from 1980, and from 1985 for a few countries. Our hypothesis is that for both FDI and for trade, the flows involving less developed countries (LDCs) should be more constraining for OECD home countries than intra-OECD flows. Hence, trade flows or FDI outflows to non-OECD countries correlate more negatively or less positively with union density than either total or intra-OECD trade flows or FDI outflows.

For controls, we considered a range of conditions commonly identified in the econometric literature as important possible determinants of union density: (1) collective bargaining centralization, whose implications for union density are contested in the literature; (2) population levels, thought to negatively impact density given, among other conditions, the more dispersed labor force; (3) civilian government employment as percentage of the working-age population, which has been frequently found to correlate with increased density; (4) unemployment, which has been often found to correlate with decreased density, among other things due to the decline in market power implied by loose labor markets; (5) inflation, sometimes thought to decrease density by undermining worker market power (in the absence of indexation clauses), and sometimes

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27 Hiscox and Kastner 2002. We focus on the augmented measure that includes land, wealth and capital in the gravity models. Other measures are either too rough or not available in enough country-years for our panel. For instance, trade-weighted tariffs miss too much of non-tariff barrier activity; NTB frequency measures from the OECD are only available for three years for our country sample; and other measures of trade restrictiveness, such as that of Anderson 1999, is also available for few years.


30 The measure we use that developed by Lane Kenworthy (Kenworthy 1999). As for the effects, some suspect that centralization ought to increase marginal value of union membership, others that it often allows free riding obviating the need for membership, and still others that it may be among many imperfect substitutes for density (hence lowering density). See Checchi and Lucifora 2002 for an interesting overview of how density interacts with this and many other labor market and social policy institutions and benefits.


33 Our focus on net density as a percentage of labor force, however, includes unemployed members, making the measure of density somewhat less sensitive to unemployment changes than net density as percentage of active labor force. Unemployment numbers come from OECD: OECD National Accounts, Volume II: Detailed Tables (1996); and OECD 1998 Economic Outlook and Reference Supplement #62; OECD. Various. Labor Force Statistics.
to increase it by in turn inspiring unionizing as compensation; (6) service sector employment, likely to negatively impact density; and (7) Left party cabinet seats, which are thought to increase policies benefiting unions and unionization, hence generally likely to correlate with rising density.

2.2. Estimation Technique

With these measures of density, globalization, and controls, we estimated their relationship with an error-correction OLS model with panel-corrected standard errors and fixed effects for countries and years. Because there is evidence that union density measured in levels has a unit root and is non-stationary, we measure our dependent variable as annual changes in density, and we use both first differences and one-year lags for the openness variables of interest -- capturing short-term and longer-term effects, respectively. All controls we measure only in lagged levels. Panel-corrected standard errors (i.e. standard errors computed with heteroskedastic-consistent variance-covariance matrices for panel data) produce less biased standard errors in the face of heteroskedasticity. We also include a lagged dependent-variables on grounds that it is particularly preferable to an AR(1) error-correction model to address autocorrelation where time-periods do not significantly out-number cross-sections -- as is certainly the case for our panels (Beck and Katz 1995). And we include country and year dummies to assess un-modeled country and period fixed effects, particularly important for the union density phenomena marked by such enormous (beyond easy estimation) differences across countries and the strong temporal trends of the last twenty years. However, particularly for our short-period estimations for the 1980 to 1999 period where we have significantly lower degrees of freedom, a full fixed effects model in the presence of an endogenous lagged variable can produce biased coefficients. We thus also report estimations without endogenous dependent variables, where we apply AR-1 correction.

We report two sets of estimations. The first compare the effects of openness and flows for union density, and takes the following form:

$$\Delta \text{Density}_{it} = \beta_{a} \Delta \text{Density}_{it-1} + \sum \beta_{b} \Delta \text{Trade, FDI and Portfolio Flows}_{bit} + \sum \beta_{c} \text{Trade, FDI and Portfolio Flows}_{cit-1} + \sum \beta_{d} \text{Trade and Investment Openness}_{dit} + \sum \beta_{e} \text{Trade and Investment Openness}_{eit-1} + \sum \beta_{f} \text{Controls}_{fit-1} + \sum \beta_{g} \text{Country}_{gi} + \sum \beta_{h} \text{Year}_{ht} + \mu_{it}$$

36 Swank 1999.
37 For instance, Lm-Pesaran-Shin tests on a balanced panel of 530 observations for 16 countries and 35 years, suggest union density in levels (not demeaned) has a unit root (t-bar = -1.220, cv10 = -1.780, $\psi$ = 1.339, p-value = .910), but density change (first-differences) does not (t-bar = -3.567, cv10 = -1.780, $\psi$ = -9.137, p-value = 0.000). Beck 1998.
38 Joint significance tests for time, country and combined time and country effects confirm what the generally highly significant coefficients of these dummies suggest, that controlling for both fixed and country effects are important. Hausman tests, further, suggest that fixed effects estimation (taking years and/or countries as the fixed group) to be preferable to random effects estimation.
39 See Swank 2001, Beck and Katz 1995, for a useful discussion of the trade-offs between fixed effects and lagging the dependent variable.
Here, we consider the first-differences and changes for each of the flows variables (Trade, FDI, and portfolio flows), along with their lagged levels. And we do the same for the openness measures (capital liberalization and trade restrictiveness). The second compares the effects of trade and investment with OECD vs LDC countries, and takes the following general form:

$$
\Delta \text{Density}_{it} = \beta_a \Delta \text{Density}_{it-1} + \sum \beta_o \Delta \text{OECDTrade/FDI Flows}_{it} + \sum \beta_r \Delta \text{OECDTrade/FDI Flows}_{c-it} + \sum \beta_d \Delta \text{LDCTrade/FDI Flows}_{d-it} + \sum \beta_l \Delta \text{LDCTrade/FDI Flows}_{l-it-1} + \sum \beta Controls_{it} + \beta Country_{gi} + \sum \beta Year_{ht} + \mu_{it}
$$

Here, we consider the first-differences and changes for the OECD flows variables (Trade flows and outward FDI flows), along with their lagged levels. Because the missing values of the shorter, disaggregated FDI series do not fully overlap the disaggregated trade data, we lose significant degrees of freedom by running the trade and FDI disaggregations in the same estimation even for the shorter series. Thus, we run them separately to maximize degrees of freedom.

### 2.3. Results

Tables One and Two show the results of the analysis, which provide at least modest support for our arguments. Table One shows the results for our comparison of our two openness measures with our several flows measures, with the first estimation with a lagged dependent variable to address autocorrelation, and with the second relying on AR(1) correction. We have no expectations for the general positive, negative, or neutral density consequences of trade, FDI or portfolio flows. But we do hypothesize that measures of openness may well yield different, perhaps stronger results in either a positive or negative direction, because they capture threats as well as actual exit and competition.

[Table One about Here]

Most of the controls show signs and significance levels consistent with other econometric studies of union density. Unemployment shows no significant relationship, though the sign is negative. Inflation is significantly negative, consistent with some studies, and giving support to the view that inflation in the absence of indexation clauses

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40 Running them together, however, yields broadly the same results, but with weaker significance levels for the trade parameters.

41 The basic results are generally robust to a number of alternative estimations, including a levels-based approach for all the variables, and estimation with differencing of all the variables and no levels parameters. The most important differences for the argument involve excluding fixed effects, in which case the differences between LDC and OECD trade and investment become narrower for most estimations. And pure differences-based estimations yield weaker results for capital liberalization "openness" than the estimations reported below. The results also appear to be generally insensitive to a range of other possible controls often discussed in the econometric literature on union density (e.g. male employment in manufacturing, total government spending, replacement rates, etc.), or to dropping some that are included, or to variety of transformations that we considered, particularly with respect to LDC vs OECD openness.
(which is common) undermines worker market power without necessarily inspiring search for compensation through union form. Left cabinet seats and bargaining centralization have the expected positive sign but fall well short of standard significance levels. The strongest effect, however, and consistent with expectation, is the significant positive effect of civilian government employment. On the other hand, a surprise in the controls is the strong positive effect of total population -- something for which we have no clear explanation.

In any event, the globalization story is a modest one, with respect to aggregate measures of flows. In no case do we find significant effects, with all the coefficients being extremely modest and in any event falling way below standard significance levels. The strongest is lagged FDI levels, but even this never makes it above the .20 level of significance. Such evidence, thus, gives support to the general view that globalization flows have no meaningful effects in the aggregate and in general for union density. Such generalizations, of course, could mask stronger positive or negative effects mediated by institutions or other conditions; but the general picture is a vote for the "it doesn't matter" school of existing controversy.

Looking at our measures of openness, however, the story is somewhat different. Capital market liberalization appears to have a quite strong negative effect on union density, particularly in the longer term -- as captured by the stronger negative coefficients for the lagged parameter. This supports our general argument that openness measures encompassing threats as well as actuality of exit or competition may capture fuller effects of a given face of openness. The negative correlation, in this case, supports the classic globaphobia view, though it's important to see that the effects are still modest. Here, one standard deviation increase in capital liberalization yields less than one percent change in density. In any event, the trade restrictiveness measures reveal no significant results, but also suggest very modestly a portrait of constraint -- being positive, suggesting at a very modest .2 significance level that more trade liberalization may at the margin hurt union density. Inductively at least, these results also suggest that openness, as opposed to flows, may be more constraining of density -- perhaps by virtue of how it captures threats of exit and competition.

Table Two shows more significant and important results for the hypothesized differences in how low-wage and high-wage openness should impact labor organization. The first pair of columns show the results of estimating the differential impacts of trade flows with low-wage vs high-wage countries; the second pair estimating the impacts of outward FDI flows to low-wage vs high-wage host countries. Again, the controls behave roughly in line with the last set of estimations, with government employment and bargaining centralization positive for density, unemployment broadly negative, and unemployment and Left cabinets having no effect. This time, however, service employment correlates more strongly positive with density, consistent only with a compensation logic. The population results are again negative for the longer series, but negative as expected for the more recent series.

[Table Two about here]

As for the globalization results, both the trade and the FDI numbers broadly support the hypothesis that low-wage trade and investment ought to be more constraining
for labor organization than high-wage trade and investment. In the longer series for which trade numbers are available, high-wage trade levels correlate positively with density -- more strongly positive than trade in general (from previous estimation). More importantly and comparably, however, the high-wage trade is much more positive than LDC trade, which is significantly negative in levels, and negative though insignificant in the shorter term (captured by the differences parameters), and perhaps expressing the less divisive character of such trade for workers. The disaggregated FDI outflows tell a similar story as far as the relative influence of LDC and OECD investment is concerned. Outflows to fellow OECD countries appear to have no effect for union density. But FDI outflows to LDC host countries appear to be more negatively related, at least in the shorter term. Here again the results are very modest relative to other conditions, such as government employment. But they do modestly corroborate the expectation that the more divisive nature of openness towards LDC countries compared to high-wage countries will more seriously compromise labor organization and power.

Altogether, these provide only mixed support for our attempt to identify differences in the way different faces of globalization might affect labor organization. The modesty of the results suggests the need for more quantitative work on density and other measures of labor organization and power -- from bargaining institutions to union wage premiums. But mainly they highlight the importance of the qualitative work. The quantitative measures of union density capture only a very rough organizational feature of labor power that may swing free of bargaining power and strategy. The very rough measures of openness as opposed to flows, moreover, may not accurately capture the real effects of trade and investment barriers and their liberalization, and in any event offer mere correlation that says little about the detailed politics and perceptions that connect openness to organized labor activity. Finally and most importantly, the quantitative information here says nothing about how a given face of globalization has varying effects on different levels and forms of labor organization -- as important as the possibility that different faces of openness have variable effects for labor organization and power. In particular, we want to emphasize how the politics of globalization plays out in the works council setting -- in ways that contrast the interests and experience of unions. All these issues, thus, provide the mandate for our study of FDI openness and German works councils bargaining.

3. Qualitative Evidence: Works councils and economic openness

Our understanding of works councils and globalization relies on empirical material gathered on the impacts of FDI openness on industrial relations in Germany. Our sample consists of eight factories belonging to the German metal industry: four from Siemens, the largest German electrical engineering and electronics conglomerate, one from Bosch-Siemens Hausgeräte (Bosch-Siemens joint venture, BSH), the world’s fourth-biggest maker of domestic appliances, and one from Miele, a family-owned manufacturer of household appliances. Table Three summarizes the basic features of these factories in terms of globalization and labor conditions.

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42 The factories belong to three branches electronics, machine tool and transport equipment.
The fact that Siemens factories make up six out of the eight factories studied implies a bias towards high-technology and high-skill manufacturing activities compared to the average of German metal industry. On the other hand, the sample encompasses a wide range of business segments in the metal industry and thus captures variation in the key explanatory variables of interest: the sub-sector-, (company) division-, and factory-level FDI (what we here call biting), as well of trade openness, as levels of "barking." And within these varying conditions, the cases also capture variation in skill profile and R&D intensity -- relevant to the nature and effects of openness affecting these factories.

3.1. Measuring Globalization, Biting and Barking, and Bargaining Outcomes

For FDI we consider three distinct measures. First, we consider FDI openness of a particular (company) division, measured by the percentage of foreign employment to total employment. Our sample provides variation across factories, as illustrated by the rankings of Siemens medical division (Med) and Miele household appliances, which had a foreign employment share of 62 per cent and 21 per cent in 1999, respectively. Second, we measure FDI openness at the level of the sub-sector to which factories belong, using EU-wide industry classification NACE. By this measure, the sub-sectors “Rundfunk Fernseh und Nachrichtentechnik” (NACE 32) and “Herstellung von Geräten der Elektrizitätswerkzeugung” (NACE 31), covering both the telecommunication plant in Bocholt and the sites in Amberg and Cham, have the most outgoing FDI with a foreign employment share of approximately 45 per cent in 1999. At the other extreme are the plants in Mülheim, Dillingen and Gütersloh, all part of the sub-sector “Maschinenbau” (NACE 29) with a foreign employment share of 22 per cent in 1999. In between is the German white goods sub-sector with foreign employment share of roughly 44 per cent in 1999. Third, the frequency of factory-level FDI is our most specific measure of FDI "bite," and is based on interviews with works councilors, human resource managers and plant managers, and completed by documents on the history of factories. We expect this measure to be correlated with the first, although it is clear that the overlap is imperfect given that foreign expansion can occur as much on the basis of mergers & acquisitions or greenfield investment than on production relocation. In the period 1990-2002, the Med factory is at the top of the scale with four cases of exit, while the Transportation Systems (TS) plant has had no factory-level FDI.

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43 Miele’s foreign employees contingent almost exclusively works in sales activities.
44 FDI statistics for household appliances branch are merged together with those of “Maschinenbau”. It should be stressed that measurement for the household appliances sub-sector, involving Dillingen and Gütersloh, is unreliable due to existing statistical compilation.
45 Calculations are based on the two sole German companies operating in the sub-sector, BSH and Miele.
46 Data reliability is very high for the Med factory and high for the plants in Krefeld, Mülheim and Gütersloh. Coding of the Med case is based on interviews and 15 years of the IGM shop stewards’ internal publication. In Krefeld internationalization of production is a very recent phenomenon, bite can thus be traced back quite easily. Similar remarks apply to Mülheim and Gütersloh.
47 We also provide measures of trade "biting," measured here by the share of exports and imports as a percentage of total sector production in Germany, for two years between 1995 and 2000.
We have also measured the incidence of “barking”, that is the frequency with which employers threaten to relocate production facilities abroad. Being aware of the methodological difficulties accompanying such effort, we again found significant differences across plants. Three factories are characterised by very low bark frequencies (Mülheim, Krefeld and Gütersloh), whereas four others score rather high (Bocholt, followed by Dillingen, Amberg and Cham).

Finally, we also have indicators of the plant-level skill profile and R&D intensity of product segments relevant to the industrial relations in the sample factories. We use the share of skilled workers to the total workforce employed in manufacturing, where we find significant differences appear between plants. Wagon (railway) and medical equipment manufacturing in Krefeld and Erlangen, as well as steam turbines in Mülheim, require a highly skilled workforce (95 and 85 per cent of skilled workers in manufacturing, respectively). In contrast, the white goods branch, in particular the assembly work, is very labor-intensive, as illustrated by the low share of skilled workers at Dillingen and Gütersloh factories (15 and 21 per cent, respectively). Finally, R&D expenditures provide an indirect measure of plant-level skill profile and an indicator of labor substitutability. Using the Mannheimer Innovation Panel scale, we found that telecommunication, transportation and medical activities belong to the ‘superior technology sector’ (R&D/sales ratio higher than 6.4), that automation and power business are part of the ‘high-technology sector’ (R&D/sales ratio between 2.8 and 6.4), and that the white goods sector is a ‘non-high-technology sector’.

To address the object of explanation, works council and union bargaining patterns, we compiled information on several items subject to German co-determination, covering the areas of working-time, remuneration system, and employment contract. We classified the factories according to the degree of liberalization of conditions or depth of concession bargaining. Six indicators are used for the liberalization scale: 1) existence (or not) of Saturday premium; 2) existence of “Vertrauensarbeitszeit” for white collar workers; 3) degree of working-time flexibility measured by the generosity of the working-time account boundaries; 4) use (and respect?) of the 13/18 per cent quota of 40 hours/week employment contracts; 5) use and/or regulation of temporary employment contracts; and 6) structure of the pay.

From the perspective of the union, these items - perhaps with the exception of pay structure - are sensitive topics, because of IG Metall’s critical stance towards the flexibilization of any of these labor provisions. The fact that IG Metall endorsed plant-level flexibilization as a counterpart measure to the reduction of the working week in 1984 doesn’t imply that the union approves all kind of flexibilization. Whereas IG Metall can tolerate project-based temporary workers, it strongly opposes the use of such type of employment contracts on a large scale and/or long-term basis. Similarly, the acceptability of Saturday work in general is low among the union. “Vertrauensarbeitszeit”, a working-time model for white-collar workers characterized by the absence of electronic recording of worked hours, is associated with extra work without overtime premiums and therefore remains suspect from the viewpoint of the union, despite the fact

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48 A discussion is provided below (p. 27).
49 In the German system, this corresponds to the completion of a 3-4 years apprenticeship.
50 Cited in Marin et al. 2002.
that the individual worker may win in terms of time sovereignty. As for the working-time model, the higher the upper limit of the working-time account, the less likely the individual employee will work overtime hours paid with overtime premiums, the less likely the works council will be able to use the instrument of overtime as a bargaining tool. Moreover, for macro-economic employment reasons, IG Metall opposes the overuse of 40-hours/week employment contracts.\textsuperscript{52} Finally, it should be stressed that compared to group piecework (“Akkordlohn”), performance payment based on premiums (“Prämienlohn”) entails greater flexibility due to more decentralized regulation.\textsuperscript{53} In sum, flexibilization along five of the six labor dimensions can be equaled to concession bargaining. Table Three compares labor flexibility across the eight factories, using a scale from the most flexible (6) to the most regulated (0) conditions.

3.2. FDI openness and plant-level labor outcomes: empirically revisited

Our research of the works councils considers the full range of the questions about the relationship between globalization and labor politics – broader even than is possible with the quantitative work. It considers whether, if at all, greater economic openness in general, and FDI openness in particular, has consequences for plant-level labor conditions. Simultaneously, we examine the direction of the relationship (constraint, opportunity or irrelevance). Concretely, this means assessing whether plants facing greater FDI openness, compared to plants facing smaller FDI openness, are associated with more flexible conditions, and investigating possible mediating variables. By emphasizing cases where employers “bark but don’t bite”, we can directly investigate the possible FDI-effects for labor, even if the actual FDI flow doesn’t occur.

For the eight factories under scrutiny, FDI openness appears through interviews and correlation to have a significant negative effect on labor conditions in five cases\textsuperscript{54} (Erlangen, Amberg, Cham, Bocholt and Dillingen); to have a tiny negative impact in one case (Gütersloh); to have no effect at all in another case (Krefeld); and to have very ambiguous and, hence, unknown effects in the last case (Mülheim). To back up these judgments, we consider several cases where FDI constrains works councils, emphasizing what aspects of labor relations come under increased pressure.

In a first scenario (Med, BSH, Cham), management conducts a more or less formalized internal benchmarking of domestic and foreign factories before allocating new investment. This usually coincides with new product cycle. Given that German environment is characterized by high wage and high non-wage labor costs in international comparison, such benchmarking tends to lead to concession bargaining.

The Siemens Med factory in Erlangen manufactures and provides medical equipment and solutions. Erlangen – the historical site of Siemens Med – is the worldwide headquarter and center of competence for computer-tomography, magnet resonance imaging, angiography, special systems and hearing aids. It is by far the single largest Siemens medical plant in Germany, with employment falling from 8’350 to 4’865

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{52} Collective agreement, depending on the region, allow 13/18 per cent of total workforce in a given plant to work 40-hours/week.
\item \textsuperscript{53} Bahnmüller 2001.
\item \textsuperscript{54} The dependent variable is plant-level bargaining outcomes. Changes in employment levels are left out.
\end{itemize}
\end{footnotesize}
in the period 1990-1998, and raising to reach 5,700 in 2002. Med displays a worldwide organization of business, with four segment headquarters based in the US (oncology care systems; ultrasound; nuclear medicine; information technology systems) and one in Sweden (electromedical systems). In 2001, Med was Siemens’ second smallest division, accounting for 8.4 per cent of total sales (or €7.2bn) and employing 30,000 people worldwide (6.2 per cent of total).

Besides having a long tradition in Sweden, internationalisation of productive activities started with the setting up of manufacturing plants through acquisitions and new developments in the US in the 1980s, presently Med’s largest single market, representing around 55 per cent of total sales in 2002. In the late 1980s, Med acquired the UK based company Oxford Magnet Technology Ltd, a component manufacturer of super conductive magnet technology for magnet resonance imaging. During the first half of the 1990s, motivated by strong growth potentials, Med established local manufacturing in the Asia-Pacific region, such as hearing device business in Singapore, assembly of the simplest computer-tomograph model in a joint venture project in China (Shanghai), and manufacturing in India (Goa). These low-wage sites grew in size over the 1990s and are likely to grow even further in the future.

At the end of June 1997, amidst economic difficulties and severe rationalization plans including downsizing of the workforce, local management informed the works council about possible modernization of the magnetic resonance (MR) unit. The condition posited by management was greater working-time flexibility. Relying on an international benchmarking of three existing Siemens Med sites (Oxford in the UK, one site in the US, and Erlangen), central (division) management stated that foreign sites were 20 per cent cheaper than Erlangen. As a result, management threatened to relocate the entire MR unit (800 workers) abroad and to allocate DM200mio investment to a foreign site, unless a compromise on flexible working-time could be reached. Given that the survival of an important part of the factory was at stake and that the threat was perceived as “very realistic”, the works council accepted to negotiate.

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55 Data are from works council, 01/2003.
57 The first pacesetter was developed in Sweden in 1958 (Siemens Medical document, 2002). The number of acquisitions and development projects carried out in the US in the second half of the 1980s is impressive. Major developments include: - the 1985 acquisition of Pacesetter Systems Inc., Sylmar, California, a leading US pacemaker manufacturer with 600 employees; - the 1986 acquisition of the second biggest US producer of dental equipment Pelton & Crane (bought from Bristol-Myers Co.), Charlotte, NC, incorporating 500 employees; - the 1987 cooperation project started with US company Computer Technology & Imaging Inc., to develop and manufacture Positronen – Emissions - Tomography (PET); - in 1987, modernization of three (out of six) US manufacturing sites: a) the nuclear medicine, X-ray and image electronic plant in Chicago; b) the production of linear accelerator for cancer therapy, Concorde, CA; and c) the hearing device plant in Piscataway, New Jersey; - in 1988, Siemens acquires the Burdick Corp., Milton, Wisconsin, an electrocardiogram equpper with a workforce of 200 employees, and the X-ray equpper Eureka X-Ray Tube Inc., Chicago (acquired from Litton Industries); - in 1992, pacemaker-manufacturing activities in the US are extended with the building of a new plant in Sylmar, California; - 2001 acquisitions of US-based Shared Medical Systems and Acuson which strengthens even further Siemens’ position in the US, in particular in the field of medical information technology solutions (Siemens, Annual Reports, various issues; FAST database).
59 Interviews 7/1/2003 and 5/05/2003.
The works agreement that ensued consists of the most far-reaching changes in conditions over more than a decade. Works council chairman recognizes that the final compromise comes close to minimum standards as defined in collective agreement. What exact requests did management formulate? The works agreement specifies several concessions in order to secure new investment and employment. Its individual provisions include: (a) extension of factory opening hours (6:00am to 8:00pm, instead of 6:30pm); (b) introduction of Saturday work without payment of premiums; (c) extension of the working time account’s upper limit from ± 2 weeks to ± 4-6 weeks; (d) introduction on a pilot basis of “Vertrauensarbeitszeit” for top managers and the high ranked white-collar workers (“Übertarifliche”); (e) key services such as spares stores may be provided seven days a week; (f) cancellation of DM100 shift premium that used to remunerate workers’ readiness to do shift work; and (g) reclassification of workers in wage groups according to job content as opposed to qualifications. The agreement, valid for the entire workforce (and not just for the MR department), is estimated to lead to an individual monthly income loss of maximum DM300. The bargaining outcome has to be seen as a compromise, as management proposed several requests explicitly violating the industry-wide collective agreement.

The BSH factory presents another case where FDI has constraining effects on working conditions. Since the late 1980s, the group follows an explicit and vigorous internationalization strategy, as shown by the fact that during the 1990s its number of plants tripled, from 13 in only three countries in 1990 to 43 in 15 countries in 2003. The share of foreign employment accordingly rose from an estimated 0-5 per cent in 1985 to 45 per cent in 1996 and 56 per cent in 2002. Compared to other BSH businesses, the dishwasher segment (PG), to which the Dillingen plant belongs, is far less internationalised: in 2002, 32 per cent of total workforce worked abroad. In 2002 BSH PG, with sales of €1.1bi, owned five production sites: Dillingen/Germany with 2'207 workers, Estella/Spain with 92 employees, Montañana/Spain with 429 employees, New Bern/US with 233 workers, and Lodz/Poland with 193 employees. The two Spanish sites were integrated into the group in 1989 with the acquisition of Balay SA, Zaragoza. BSH PG started operations in the US in November 1996. Dishwashers are manufactured in

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60 Interview 5/05/2003.
61 Except when employer assigns overtime, on the condition that the working time account is full.
63 On two issues management made proposals to deviate from collective agreement: a) Extension of working time week; and b) Limitation of co-determination rights during reclassification procedure (Interview chairman of works council 5/05/2003).
64 A similar “give-give” pattern occurred in 1994, when management decided to build up a new factory for computer tomography (DM85mio) in Erlangen. Labor reforms (/concessions) included introduction of teamwork, “Prämienlohn”, and far-reaching changes in work organization such as just in time production and greater client orientation (Siemens-Welt, 4/1995; Interview, member of works council, 5/05/2003).
66 BSH, Annual Report, 1997 and 2002. By 1985, BSH already owned a majority stake (55 per cent) in the Greek group Pitsos S.A., Athens (BSHG, Annual Report, 1985). It should be noted that the estimation for 1985 refers to manufacturing employment only, whereas figure for both 1996 and 2002 include employment in foreign sale offices.
Lodz since September 2002. It should be stressed that a certain internal competition for investment and jobs has developed over time between the Spanish sites and Dillingen due to the fact that several similar products are manufactured in both locations, although not the entire product spectrum is identical. Competition between Spanish and German sites also exists in export markets: besides serving the Iberian market, Montañana factory produces for other Western and Central European countries. Dillingen, however, remains PG’s R&D competence centre worldwide. This explains the practice that new foreign production lines are set up, started and tested in Dillingen, before being given up and transported abroad – it occurred with the ‘low investment’ in Poland, and with highly automated lines in the US and Spain.

A new product cycle in early 1997 sparked employers to flex their muscles and demand labour concessions in return for investment and job security. At the outset of the negotiations, employers questioned the long-standing and by then quasi self-evident practice of manufacturing new product (GV450 from GV45 series) at Dillingen plant. Reflections to start manufacturing at other (foreign) sites were openly shared with the works council, as shown by the following passage of the works agreement: “Die Betriebsleitung sagt zu, die zwischenzeitlich auch angestellten Überlegungen zu einer Fertigung an einem anderen Standort fallen zu lassen”.

The works agreement “Cost reduction and measures to safeguard the site” suggests the “give-give” nature of the deal (so called employment pacts). The deal includes guarantees of new product allocation, of producing a minimum of 2mio devices per year before considering relocation, of employment security for a period of four years, and of deepening the value-added through in-sourcing. In return, workers concede cancellation of a ten minutes paid break (break remains but unpaid) and extra training is created out of the renunciation of daily three minutes of personal break time. Other labor changes of the 1990s related to economic openness will be discussed below.

The Cham factory serves to illustrate a case of less formalised international benchmarking. Back in the 1960s, the Cham factory was built up as a branch of the Amberg site. Cham, a pure manufacturing site with a total workforce of 680 people in April 2003, produces low voltage switches for the control and distribution (CD) of energy, with 70-80 per cent of production going for exports markets. As of 2003 CD business segment’s worldwide network of manufacturing included factories in Czech Republic, Turkey, India, China, Canada, the US, Mexico and Brazil.

In 1998, in exchange for a flexible working time model “Vario 4” division management allocated a series of products newly developed in Amberg to Cham (Sirius 3RV, 3RU, 3RT). Management pointed out that investment was conditional on cost reduction, stressing that capital-intensive production lines need be run over greater number of hours within a week. During the negotiations, the option to invest in Czech Republic was seriously considered. “Vario 4” (4 employees share 4 workplaces over 5 days) implies a move from 15 to 18 shifts for significant part of the workforce. For the works council, the generalisation of Saturday work without extra premiums for one large

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69 Idem
70 Works agreement, 1997. Material kindly provided by works council.
71 Interviews, Deputy chairman of works council, 8.5.2003; and Head of production, 11.9.2003.
group of workers was a painful concession. Not only did the works council’s decision infuriate IG Metall and the works council in Amberg, but it also triggered great scepticism among the workforce, in particular among its younger elements. To sweeten the pill, the model foresaw four working days a week (32 hours), a paid 1/2 hour per working day (two hours/week), a fifth working day per quarter and a training measure.

A similar procedure occurred in early 2003 with the 3 VL, an innovative product that Siemens will manufacture for the ten years to come. After being developed and manufactured in the US, serious quality problems emerged. While central management was looking for a new site, local management approached the works council and asked for compensations in exchange for investment. Labor concessions include cost reduction by reshuffling the working time model (cancellation of the paid 1/2 hour per working day and of the Vario 4 model altogether were in discussion at the moment of writing), the downsizing of training measure from four sessions to 1 session per year, and the introduction of a generous agreement on the use of temporary workers, opening up the possibility to hire temporary workers up to 15 per cent of total workforce.

In a second scenario of concession bargaining in the face of economic openness, employers seek to push through labor reform in the face of reluctant workers and labor representatives. Here, the explicit use of exit threat provides the necessary leeway to implement the change. Two examples from BSH illustrate this strategy.

Employers have recently been “barking” with frequency and efficiency at Dillingen plant. First, a works agreement concluded on September 1994 reduced the (voluntary) shift work premium for two shift workers from ten per cent to six per cent, a measure, however, affecting newcomers only. Initial talks between workers and employer reached stalemate, as employer sought to reduce the premium to 4.9 per cent, a compromise judged unacceptable by the works council, given that the great bulk of the workforce works in the two shift model. The agreement finally maintained the status quo for all two-shift employees under contract as of 30.9.1994, the new regulation entering in force only for new recruits. The works council was put under huge pressure to sign up for a consensus, as employer threatened with the relocation of a product line to Spain, potentially displacing 400 jobs. Moreover, on management side, this deal was justified by referring to increased trade competition.

Second, on March 24 2003, works council and employers signed a works agreement allowing work to be performed on a regular basis on Sunday in the synthetic spraying unit (21 shifts) to match increased demand. That is another case where employers had the upper hand in the negotiations: had the works council not agreed on the measure, a new FDI in synthetic spraying – likely to be located in Spain – would have

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72 For one unit representing around 36 per cent of workforce (April 2003) engaged in manufacturing activities 18 shift-model was introduced (So 11.00pm – Sa 11.00pm).
73 Interview, Chairman works council, 25.4.2003.
74 In its initial phase the investment was associated with 60 new jobs, but possibilities for extension exist, and the works council sees good chances for the future. All in all, however, no new jobs are created as older lines are removed. (Interview Deputy Chairman of works council 8/5/2003).
75 Works agreement, 1994. Kindly provided by works council.
77 The reason invoked by management to justify cost reduction was “[change in] the international competition in dishwashing market segment”, which in turn requires improving company’s competitiveness (“Preamble”, works agreement, 1994. Provided by works council).
cost additional jobs (estimated at 80) due to the accompanying relocation of at least some products thus far assembled in Dillingen.  

To sum up, what is striking so far is that a great share of the major recent changes in conditions can be explained by economic openness and in particular FDI openness. The cases also show that it is more exit threat than actual exit that triggers concession bargaining. Exit threat, however, does not take place in a vacuum. One central reason why works councils at BSH, Med and Cham feared relocation is because of the international set up of manufacturing in the respective business segment, that is because of earlier FDI. Whether exit threats are “realistic” remain an open question. With respect to BSH, two pieces of information help shed light on this point. First, an international benchmarking of BSH and non-BSH firms disclosed in March 2003 concluded that BSH’s Spanish site was one of the (if not the) frontrunners.  

Second, the head of management at Dillingen factory is simultaneously responsible for the PG segment, implying that he is not only accountable for the profitability of the German factory, but also for the whole business segment, making relocation a very plausible option. As far as Med is concerned, historical developments at factory and concern levels explain works council’s readiness to compromise. On the one hand, outsourcing and foreign relocations (frequency of “bite”) have been disproportionately high. On the other hand, the decision to move the headquarter of ultrasound business to the US around 1990, followed by relocation of Erlangen’s ultrasound activities which cost 60 workplaces in 1993, set a precedent.

We shall now review the case of TS plant in Krefeld, where FDI openness seems to have played no role whatsoever in altering the bargaining strategy of the works council or in influencing the content of works agreement. The TS plant belongs to the least internationalized Siemens division under scrutiny (foreign employment share of 32 per cent in 1999). Measured in terms of plant-level FDI openness the TS site scores lowest relative to the other sites. But how is it then, especially in view of the earlier cases, that FDI openness doesn’t play a role here?

TS consists of eight separate business lines reflecting a very clear division of labor (e.g. locomotive; railway signaling), so that manufacturing in a given TS segment cannot substitute for manufacturing in another TS segment. Here, we shall thus focus on the train and tram business exclusively. Siemens started own wagon manufacturing in 1989, when it acquired a majority ownership of Duewag AG incorporating 2’200 workers and factories in Düsseldorf (tram; Light Rail segment, LR) and Krefeld (train; TR). In 1991-1992, TS acquired a plant in Czech Republic, the Spolecnost Kolejovych Vozidel s.r.o. in Prague, a site that employed 800 workers in October 2001. Other international expansion includes the1995 broadening of the manufacturing basis in the US (shell construction). In 1999-2000, a rationalization plan triggered by slack and fierce

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78 Interview manager 19/05/2003.
79 Idem.
81 Interview, Deputy Chairman of works council, 23/5/2003
82 Full ownership was acquired in 2001 (Siemens, Annual Report 2001).
83 The 2’200 figure corresponds to fiscal year 1987/88 (Siemens-Zeitschrift 2/1990a).
84 Dörrenbächer and Bluhm 2003
price competition led to the concentration of TR and LR activities in Krefeld and to the closure of the Düsseldorf site, affecting a total of 850 workers.\(^{85}\)

Labor relations at TS plant in Krefeld have been extremely stable over time. Significant changes were rare, or simply not viable in the long run. For instance a flexible working time model was implemented between September 1997 and September 1999, but the works council vetoed the renewal of the agreement because of management failed to fulfill its pledge to balance the working-time account within two years. As a result, the works council was in a position of force to negotiate a more regulated working time account (± 70 hours), against management’s preference.\(^{86}\) At the end of 1996, when discussions over a new working time model were initiated, employers proposed a “rolling” system with regular Saturday work. Management wasn’t able to push this measure through, as the works council categorically rejected the proposal.\(^{87}\) Another flawed attempt to modify conditions involves the issue of pay system. In the middle of the 1990s, management made an unsuccessful attempt to change piecework into “Prämienlohn”. Works council and management could not agree on the basis for measurement of performance wage.\(^{88}\) In short, works council felt that its influence on the drafted works agreement was unsatisfactory.

Why is it that the TS plant displays the most regulated labor relations in our sample? Here, relative economic closeness both in terms of “bark” and “bite” is important. Given the international business set up,\(^{89}\) management is unable to use the supreme exit threat to push through much wanted labor reforms. Works council doesn’t perceive relocation as a real option, because of the loss of know-how – in particular manufacturing know-how (95 per cent of skilled workers) – that such decision would entail. Here, asset specificity (skill profile) and less sector mobility result in the relative strength of works council. Moreover, the combative unionism in line with IG Metall ideology, traditional in wagon building, also explains why conditions are still relatively atypical (less flexible working-time; no premium wage; no “Vertrauensarbeitszeit”).\(^{90}\)

In still another scenario of how globalization relates to plant-level labor politics – Siemens Information and Communication Mobile (ICM) plant in Bocholt – we found that employer’s barking strategy is de-coupled with actual negotiations rounds.\(^{91}\) Managers at different levels of the organization bark at regular intervals with the aim to exert pressure and to co-opt the labor representation. Although the works council takes these threats seriously, it doesn’t consider relocation as inevitable as long as viable alternatives can be found. The words of the chairman of the works council illustrates how economic openness informs bargaining strategy: “We realise more and more that we develop

\(^{85}\) Siemens-Welt 06/2000.

\(^{86}\) Interview Deputy Chairman works council, 23/5/2003.

\(^{87}\) Interview Deputy Chairman works council 23/5/2003.

\(^{88}\) Interview Chairman works council, 22/5/2003.

\(^{89}\) Between 1991-2001, Prague’s main activities were manufacturing metro shells and vehicles (Heavy Rail, HR) for the Eastern European market so that cooperation or competition between the German sites (TR and LR) and Prague (HR) was inexistent. The situation might change since Prague has been incorporated into TR segment in 2002.

\(^{90}\) The works council has always been dominated by IG Metall members, thus creating a strong identity and internal cohesion. Moreover, TS factory has the highest degree of union membership among the mixed plants (production and R&D) of our sample (45 per cent).

\(^{91}\) The reliability of this information is limited as it is based on one unique interview.
entrepreneurial thinking… we realise that we perform entrepreneurial activities… we think with [management] on how we can implement measures to remain competitive”. 92 Moreover, the chairman expressed his awareness that Siemens is (almost) the only firm yet to manufacture in Germany/Europe, since one major competitor – Philips – relocated its telephone production to low wage countries. 93 Similar to Med or BSH, the fact that Bocholt combines plant-level FDI openness 94 and great economic openness in general contributes to shape works council’s perceptions.

We would like to stress again that our different scenarios suggest that “bark” strategy is efficient when supported by earlier “bite”. To some extent, quantitative FDI flows and stock statistics thus capture the “bark” phenomenon, inasmuch as barking becomes sanguine when preceded by FDI outflows. What statistical economic flows and stock don’t tell, however, is the frequency with which barking occurs, which leaves unanswered both the questions of the incidence and “depth” of concession bargaining. Detailed, qualitative investigation remains therefore crucial for a full understanding of the effects of economic openness on labor outcomes and organization.

We would like yet to provide another illustration of this methodological point by discussing an ideal-type case combining actual FDI closeness, outside option and concession bargaining. The Miele case comes closest to the situation where employers’ barking without earlier FDI is sufficient to set in motion a process of change in labor relations. Miele owns six manufacturing plants in Germany and one components plant in Bürmoos, Austria (since 1962). 95 Given that workforce in Austria has always been very small (around 1 per cent), Miele manufacturing can be said to be exclusively German (or OECD) based. During decades, in keeping with the firm’s deliberate strategy to occupy a niche at the higher end of the household appliances market, illustrated by company slogans such as “made in Germany” and “Immer besser”, management didn’t express any intentions or plans to manufacture abroad. The historical commitment to produce in Germany, however, started to fade away at the end of the 1990s. First internationalisation attempt occurred in the first half of 1999, when management announced plans to manufacture parts of the dishwasher, hitherto produced and assembled at the Bielefeld plant, in Poland. 96 Although this particular project was never carried out, management didn’t abandon its plans altogether. In August 2000, supplying firm Peitz, supported morally and financially by Miele, announced the relocation of top loader-aggregates assembly to the Czech Republic. Simultaneously, Miele central management openly considered relocating the entire assembly work for top-loading washing machines. 97 The reaction of works council was to oppose relocation of top loader-aggregates, out of fear

92 Interview chairman works council 3/02/2003.
93 Interview chairman of works council 3/02/2003.
95 Washing machines and driers in Gütersloh; dishwashers and vacuum cleaners in Bielefeld; oven and microwaves in Oeide; electroengines in Euskirchen; fully-fitted kitchen in Warendorf; and household rotary iron in Lehrte. Company’s foreign employment share measured at 21 per cent in 1999 clearly overestimates the degree of internationalization of production, as Miele’s foreign workforce is almost exclusively employed in sales activities.
96 Das Bullauge 2000.
97 Das Bullauge 2000.
of even bigger relocations (e.g. top-loading assembly). Works council’s worst fears turned into reality in 2002, when Miele took the historical decision to carry out a greenfield investment in the Moravian town of Unièov, Czech Republic. Production of labour-intensive top-loading machines is expected for early 2004.

Due to its particular position in the white goods sub-sector, Miele plants used to display more regulated and more generous conditions. The gap, however, has recently narrowed. In July 1998 employers expressed new demands: the introduction of more flexible working-time, an agreement on agency workers, and the replacement of the piece rate (or hourly rate) by a performance-wage based on premiums. In January 2003 a company “employment and productivity pact” was concluded, including: a) company-wide agreement on temporary workers (max. 2.5 per cent of the workforce); b) Flexible working-time scheme limited to the three largest plants (Gütersloh, Bielefeld, Oelde): weekly working-time period is allowed to fluctuate between 30 and 40 hours with use of working-time account (+70; -35 hours); c) Performance-oriented pay based on premium, limited to the three largest manufacturing sites (introduction of Method – Time – Measurement system).

It is less the actual decision to invest in the Czech Republic taken in 2002 than the early discussions and polemics surrounding a potential foreign investment that modified labor’s attitude. Evidence that the mere possibility of outward FDI induced moderation of works council is found in several statements leading up to November 1999 – a point in time following the initial plan to invest in Poland, but preceding the FDI decision. In a leaflet presenting the perspective of the central works council, we identify a direct relationship between the increased pressure on labor to increase flexibility and the new investment project. In this leaflet, there is mention of explicit employer barking: “[if] concessions of the central works council and of the Bielefeld works council [are] in question, so is suggested [by management], [it] could considerably influence the decision about Eastern Europe”.

Taking another page from the leaflet, Dr. P. Zinkann, member of one of the two founding families of the group, says: “[MTM issue and concerns surrounding it] … are only small things… all this represents no problem in Poland…” Originally, Miele’s works council was lukewarm to negotiate over MTM, influenced by IG Metall’s long-standing critical stance towards MTM. The MTM system is elaborated by a professional company and, based on benchmarking practices carried out in factories around the globe, has the pretension to be applicable universally. A six months trial period starting in March 2001 convinced the works council that productivity gains of between 15 to 20 per cent were achievable without excessive deterioration in workers’ health and conditions. It is worth mentioning that management argued in favour of the changing payment system by referring to practices of major competitors

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98 Das Bullauge 2000.
99 Interview HR manager 16/04/2003.
100 Interview, IG Metall member responsible for white goods sector 29/1/2003.
102 GBR-Miele 1999.
103 GBR-Miele 1999.
104 GBR-Miele 1999.
105 Interview, Chairman of central works council, 16/04/2003.
106 Interview, Chairman of central works council, 16/04/2003.
(BSH and Whirlpool). Interestingly enough, the works council was convinced and ready to accept the new system before the FDI decision (2002).

To sum up, even though we haven’t developed a consistent theoretical argument about the necessary constraining effects of outgoing FDI, our sample shows that greater FDI openness is associated with greater neoliberalization of plant-level labor outcomes, and that this relationship is mediated by the skill profile and sector mobility. Med displays the most flexible conditions and is most exposed to FDI openness, whether measured at the division or plant level. Interestingly, Med is one of the sites that has been confronted with the biggest change in trade competition (second after Bocholt) between 1990-1994, which might suggest a story about globalization rather than just FDI openness. Factories in Cham, Amberg and Bocholt all fit the overall pattern of significant FDI openness (on several measures), great acceleration of trade competition in the period 1995-2000, and flexible labor conditions. The cluster formed by Miele and TS combines comparatively low levels of FDI openness with regulated labor conditions. Above average quality of conditions at Miele have also to do with the company’s market niche. Mülheim\textsuperscript{107} and Krefeld most clearly show that skill profile and low sector mobility mediate globalization and labor outcome. Dillingen is a mixed case, featuring intermediate levels of outgoing FDI and regulated labor relations, thus rather pertaining to the Miele-TS cluster. We have also seen that concessions were made in the face of potentially outgoing FDI – concessions that do not show up in our flexibility scale because of the nature of the change (e.g. cancellation of break). The relatively low share of skilled workers (15 per cent) definitely accounts for the defensive position of labor. Last but not least, in this sub-section we have argued at length about the importance to consider “dogs that bark but don’t bite”.

3.3. The politics of barking: bluffing? Or bellowing?

Does barking swing free of real market conditions and considerations, and thus constitute mere bluffing strategy deployed by employers to redefine labor relations to their liking? Or does barking reflect real competitive pressures triggered by increased trade and FDI integration? Do employers actually bark more when they have previously made use of bite? What can we learn from our sample about the politics and logics of barking? Studying and collecting data on barking to answer such questions is extremely difficult. First, under the cover of uniformity, barking can take many forms, entailing more or less explicit expressions of threat.\textsuperscript{108} Second, and related to our sample, comparison across plants is problematic because of different time periods. Identifying barking relies essentially on interviews and in a few cases on internal documents published by the shop stewards, which generally allows considering a longer period. Finally, because barking is a sensitive and political issue, the reliability of the “bark”

\textsuperscript{107} More on the Mülheim case below (pp.28; 30-31).

\textsuperscript{108} For instance, central management can inform the works council in a very official setting about relocation plans and threaten to move production abroad if productivity cannot be increased and costs reduced. Alternatively, local management can praise the greater flexibility and lower wages in non-OECD countries during a more or less formalized meeting with works council, stressing the comparative disadvantage of producing in a high wage country in a globalized world, thus insidiously inducing a general feeling of uncertainty.
count increases with the number of people interviewed.\textsuperscript{109} Despite these shortcomings, we believe that a few speculative points can be made about the politics of barking, even at this early stage in our study of such politics.

Firstly, there seems to be some evidence that “bark” is related to real material conditions and/or changes in these conditions. On the one hand, there are two cases (Mülheim and Krefeld) with no incidence of bark. In these cases employers don’t and simply cannot make realistically use of exit threats to a large extent because of the skill/technology profile of the factory. Steam turbines (Mülheim) and rail vehicles (Krefeld) manufacturing, both part of heavy machine tools sector, requires contingent of highly skilled workers and high quality performance. For instance, in the gas and steam turbine business, Siemens is obliged based on a contractual clause to pay a big fine to clients in case of non-respect of quality and safety standards.\textsuperscript{110} Factories with profiles such as those in Mülheim and Krefeld are very bad candidates for relocation projects, and our story suggests that social partners are very aware of this. On the other hand, barking seems to reflect changes in the economic environment. Med is probably the best example, but it is true for other factories (BSH: 1994; Cham: 2003). The 1997 agreement was concluded at a time of economic hardship, as illustrated by the drastic employment decline that occurred in the period 1990-1998 (8,336 in 1990 and 4,865 in 1998). In brief, competitive pressures were an important feature underlying the employment pact. An examination of the IG Metall shop stewards’ publication shows that the period leading up to 1997 is the only time in 15 years when bark practices are reported, which tends to confirm that barking and “bellowing” go hand in hand.\textsuperscript{111}

Secondly, the results on whether employers make greater use of bark when there is more bite are inconclusive. Where bite precedes bark, however, bark is frequently associated with real negative effects on labor outcomes (Erlangen, Amberg, Cham, Bocholt, and Dillingen).

Thirdly, we suggest that barking may be loudest when there is doubt about biting. To put it differently, the size of the relocation seems to matter, with greater projects spurring greater suspicions about the relocation feasibility. We remain puzzled by the plan to relocate the entire MR unit to Oxford (UK) (Med case). Several facts seriously question the feasibility of the FDI: geographical closeness to MR business and division headquarters, located in Erlangen; R&D activities in the UK (magnet technology) and Germany were complementary rather than in competition, thus making the relocation complicated, more difficult and costly; loss of know-how, as 800 highly qualified engineers, project managers, and knowledge workers would have been made redundant. In brief, the implementation of the plan seemed very problematic, and we therefore would like to suggest yet another line of thought. Heinrich von Pierer, CEO of Siemens, commented personally the deal by saying that without concessions investment would have been carried out abroad.\textsuperscript{112} The interference of CEO in local labor politics is rare enough to be stressed. Siemens management has largely exploited this deal politically.\textsuperscript{113}

\textsuperscript{109} At this stage of the thesis project it hasn’t yet been possible to conduct several interviews at every plant.
\textsuperscript{110} Defect products some 4-5 years ago compromised the profitability of Siemens Power Generation (Interview, members of works council, PG Erlangen 9/5/2003).
\textsuperscript{111} Management voiced slogans such as “the Czechs produce cheaper” or “in Singapore the wages are lower” (Die Spritze, January 1997).
\textsuperscript{112} Handelsblatt 4-5/10/1997.
\textsuperscript{113} Interview, Human Resource manager 29/04/2003.
In a country often depicted as displaying rigid labor market regulations, the 1997 deal was erected as a model of flexibility and cooperation between works council and management to reach solutions tailored to the company problems. It is no coincidence that Chancellor Schröder was invited to attend the works meeting at Med in early 2003. What should be recalled here is that during the negotiations management tried to deviate from the collective agreement.\(^{114}\) Closer examination of the period during which the negotiations took place reveals an intensification of the debate on the reform of the sectoral collective agreement (e.g. opening clauses).\(^{115}\) It seems that the employment pact was overdetermined by high-level power struggles between IG Metall and Siemens AG.

3.4. Is all outward FDI bad news for workers?

Does all outgoing FDI from a high-wage country hurt workers in this country? Or should certain kinds of outward FDI be more feared than others? Our works council cases suggest that the destination of the FDI is crucial in understanding whether FDI is more or less constraining for works councils. We argue that from the perspective of high-wage works councils FDI to OECD countries is more threatening than FDI to non-OECD countries. This has to do with the fact that high-wage FDI to OECD countries entails a greater risk of substitutability of activities, leading to potentially more concession bargaining, whereas FDI to low wage countries involves greater up-skilling, which under certain conditions – in particular employment security – can even be championed by works councils.

The most prominent cases where actual and/or possible FDI to OECD countries led to concession bargaining are Med and BSH. As they have already been discussed at length, suffice is to add a few words here. The Med MR FDI was planned in direction of the UK (MR site in Oxford) or the US. And there were no talks about relocating such high-technology development and manufacturing activities to a non-OECD country. As for BSH, it is the sites in Spain (especially Montañana), producing partly similar products (GV 60 series), which puts a structural constraint on labor politics in Dillingen. The argument finds validity for at least one of the concession bargaining in Cham, namely the “inverse-relocation”\(^{116}\) of the 3VL products, suggesting that Cham competes for investment with other CD sites in OECD countries, rather than in non-OECD countries.

It is difficult to assess whether works councils in Amberg and Cham fear more competition from sites located in OECD or non-OECD countries. Given the global manufacturing network of CD business (Czech Republic, Turkey, India, China, Canada, the US, Mexico and Brazil), low-wage country competition seems to be more of a problem for the two German sites. Moreover, Amberg and Cham lie close to the Czech border, and both have been affected by small-scale labor-intensive relocation projects to Trutnov, Czech Republic, although without triggering direct concession bargaining.\(^{117}\) On the other hand, two worlds seem to separate German and foreign sites: Amberg and

\(^{114}\) See above.

\(^{115}\) EIRO 1997a, EIRO 1997b.

\(^{116}\) “Inverse-relocation”: from the perspective of a home country, this refers to relocation of a product that was first developed and/or manufactured in a host country.

\(^{117}\) Interview, Chairman works council, 20/12/2002. Trutnov was acquired in 1993, it manufactures labor intensive mechanical switches and timing relays for world markets (Dörenbächer and Bluhm 2003).
Cham are high-technology, highly automated factories, as shown by the fact Amberg’s electronic plant was awarded the price of “fabric of the year” (1997) in the most significant benchmarking competition in the German industry.

So does the existence of the Czech site really put pressure on industrial relations in Amberg or Cham? What we found here is that social partners have different perceptions of what is going on, and what type of FDI is more threatening. When management was looking for a site to produce Sirius products in 1998, the deputy chairman of the Cham works council’s remembers that it was competing with Amberg, and sites in the Czech Republic and Turkey. The production manager tells a different story: in this version, it was clear that the new Sirius series were planned either for Amberg or Cham, recognizing that there was some competition between these two sites. We identify several factors that account for works council’s feeling of vulnerability: the size of the plant (680 employees); the trend of declining employment; the profile of the factory (pure manufacturing); the low skill profile of workforce (30 per cent); and the closeness to Czech Republic. The works council’s perception of its own vulnerability, even if not based on facts, has real effects for conditions in Cham and Amberg.

Is it really so that FDI to non-OECD countries doesn’t trigger direct changes in plant level labor policies? Two relocations to Czech Republic (1996-1997, BERO devices; 1999, timing relays) that took place at Amberg site can help shed light on this point. In both cases, the more labour-intensive (in one case also the more noise intensive) devices were relocated to low wage country on the grounds that the business was unprofitable in Amberg and that such measure secured jobs in the long run. In the BERO case, the works council was simply informed without prior consultation. It couldn’t oppose a counter proposal because even the introduction of additional Saturday shifts would not have saved BERO devises. It seems as if such type of FDI – small scale and labor-intensive manufacturing – doesn’t lead to concession bargaining and weakening of conditions. What happens is that while work goes away, labor focuses its strength on getting new jobs for the displaced workers in the internal labour market. Besides the positive outcomes of upskilling and employment security, such foreign outsourcing could even have positive long-term employment effects due to greater firm profitability.

Siemens PG offers another example where FDI to non-OECD countries doesn’t have consequences on plant level outcomes. In 1997 PG acquires the privatised Erőkar plant in Budapest, becoming Siemens Erömütechnika Kft. in 2002. The subsidiary is closely integrated with the parent company in Germany, as some of its major activities

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118 Interview, Deputy Chairman of works council, 8/5/2003.
119 According to senior engineer, there was little doubt that management planned to manufacture two of the three products (“Leistungsschalter” 3RV, contactor “Schütze” 3RT) in Amberg or Cham. Regarding the third item (“Überlastrelais” 3RU), however, profitability calculations led management to seriously consider the option of a low capital investment in Czech Republic (Interview, Head of Production, 11/9/2003).
120 We identify a transfer of labor practices from Cham to Amberg via mimicking. The “Vario 4” agreement (1998) infuriated Amberg works council. There used to be a custom that the two sites sign the same works agreement (Cham is originally a branch of Amberg). Amberg thus considered the agreement as pure ‘social dumping’, as an attempt to attract favors of management. Amberg’s changes in working conditions (at least for the change in early 2003) have been triggered by management’s policy of systematically comparing and blaming Amberg works council for not being as cooperative as Cham (both sites have same management). The chain effect, triggered by economic openness, becomes clear: Cham practices ‘social dumping’ because it feels threatened by low-wage competition, Amberg mimicks Cham in order not to be sidelined by management in the distribution of investment between Cham and Amberg.
include manufacturing of gas turbines compressor blades, turbine diaphragms and low pressure turbine casing, and steam turbine blades for the Berlin (gas turbines) and Mülheim (steam turbines) sites.\textsuperscript{121} Subsequent to the purchase of Erökar, Berlin plant was hurt by relocation of compressor blades affecting 40 workers. As Siemens had invested heavily to modernise the Hungarian site, the works council was powerless to revert the decision and instead shifted strategy in an attempt to safeguard employment.\textsuperscript{122} This strategy was a success and an acceptable compromise for the works council.\textsuperscript{123}

Let us briefly examine TS acquisition of the train plant in Prague, Czech Republic. It should be stressed that the site was integrated into TR business line in 2002, whereas from 1992 to 2001 it belonged to HR (metro). First, we found no evidence of concession bargaining as a result of management playing German and foreign sites against one another. Second, the investment was of a horizontal type, motivated by market access considerations.\textsuperscript{124} Market presence in Czech Republic (Eastern Europe) enabled Siemens to get access to the rebuilding of railway infrastructure in the country and region. Third, the sites in Prague and Krefeld are not as similar as it appears at first sight. By now both manufacture shells for rail wagons, but there remains a substantial productivity gap that will be matched in only 4-5 years, according to management estimates. Deputy chairman of the works council, however, judges this estimation too optimistic.\textsuperscript{125} Both labor representatives, however, recognize that more systematic cost comparison between Prague and Krefeld are likely to occur in the future.\textsuperscript{126}

This brings a final remark about FDI to non-OECD countries. It is possible that one of the reasons why these kinds of FDI are not threatening for OECD works councils has to do with the fact that these investment are recent, that they didn’t mature and develop into sites capable of offering similar substituting effects than sites based in OECD countries. Non-OECD FDI may yet have to ripen before causing real effects on plant-level bargaining in OECD countries -- which doesn’t presage a very happy and quite future for worker’s representation in OECD countries. Concerns were expressed by the great majority of the works councillors in Dillingen regarding the recent investment in Poland, and by the works council in Krefeld about the Prague site. This represents a more general feeling among works councils (e.g. Med, ICM).

\begin{itemize}
\item[\textsuperscript{121}] Internet download 9/6/2003.
\item[\textsuperscript{122}] Interview, Chairman works council, PG Berlin, 29/10/2002.
\item[\textsuperscript{123}] It should be noted that such outcomes do also occur with outward FDI to OECD countries. In 1998, the decision to specialize on the wireless phones production in Bocholt is accompanied by the relocation of pay phones (public telephone boxes) manufacturing to the newly acquired plant near Zaragossa (affecting 50-60 workers). Orders of such products are on constant decline with the expansion of mobile telephony. Given this situation, the works council didn’t try to oppose management’s decision. It should be added that a new job was found for every displaced worker through the internal labor market (interview chairman of works council, Stahl). As a whole, however, FDI to OECD countries tend to be associated with bigger degree of substitutability rather than complementariness, which is in turn associated with greater incidence of works council concession bargaining.
\item[\textsuperscript{124}] Interview, Deputy Chairman of works council, 23/5/2003.
\item[\textsuperscript{125}] Interview 25/3/2003.
\item[\textsuperscript{126}] Interviews, Chairman and Deputy Chairman of works council 22-23/5/2003.
\end{itemize}
4. Conclusion

This paper has addressed scholarly controversy and confusion about the relationship between globalization and labor organization by considering some obvious but hitherto neglected basics of this relationship. First, we have tried to better understand how different faces of economic globalization have varying effects for different kinds of labor organization and outcomes. We argue and find some modest quantitative evidence that trade and investment with LDC countries has more constraining effects for unions than does OECD trade and investment. And we argue and find some qualitative evidence that the effects of globalization for works councils look quite different, and for the particular (relatively high-skilled) factories of our case studies that OECD trade and investment may be the more threatening face of openness. Through these claims and evidence, we continue the emerging research on finding mediating variables that may adjudicate the globalization-labor nexus. Finally, by looking at cases where “dogs bark but don’t bite” we address bias in scholarship focused on trade and investment flows, and thereby begin providing a more comprehensive accounting of the effects of economic openness on labor organization and bargaining outcomes. Our quantitative analysis of union density and globalization compared the effects of trade, FDI, and portfolio flows with the effects of capital and trade restrictions, suggesting very modest support for the view that the latter tend to capture fully and stronger effects than flows. However, only the qualitative works council story enable us to grasp the complex politics of barking and/or biting, by studying perceptions of actors and linking barking frequency with “depth” of concession bargaining.

Both the quantitative and, especially, qualitative analysis, have raised a number of possibilities for further probing how globalization affects the life of organized labor. The paper makes no claims about whether trade and investment openness constrains, spurs, or doesn't matter for labor organization and power -- if anything coming down on the view that the effects are on the whole negative but very modest. This is not very strong stuff. But continued research may well support one or another of these views more strongly. Based on our qualitative analysis, for instance, we were tempted to make the argument that FDI openness has constraining effects on plant level labor outcomes independently of the skill level of works council, without however being able to make clear conclusions about its effects on plant level union membership. As we have shown FDI openness involving threatened or actual exit, in particular those flows going to OECD countries, put enormous pressure on works councils. Plant level regulations on working time and type of employment contracts are systematically flexibilized, and generosity of labor standards such as extra premiums (e.g. for shift) and break are either tightened or simply cancelled. As for the structure of payment system the issue is more complex and ambiguous, as the introduction of performance payment based on premium provides in average increased remuneration to the individual worker, but it also leads to increased intensification of work and new co-determination problems.

Whether pursuing the globalization debate head-on in this sort of way, or continuing to identify conditions or disaggregation that mediate the effects of globalization, there is much to be done in improving our understanding the relationship between the global economy and labor politics. For further quantitative work, improved coverage of country-years is obviously important, especially for the more disaggregated
measures of openness that allow more complete testing of the argument that LDC and OECD openness spark different labor politics. Similarly though more difficult is finding better measures for "openness" as opposed to flows -- beyond the relatively crude measures for capital and trade restrictiveness used here. On the left-hand side of the equation, of course, even more needs to be done -- identifying and analyzing the effects of disaggregated openness and flows on other aspects of labor organization and power, such as degree of centralization of collective bargaining and union wage premium.

As far as the case study research is concerned, we need better data (time-varying) on plant level union membership, as well as employment levels in order to better understand the conditions under which economic openness constrains, spurs or leaves unchanged union density. For instance, how do works council and union relate to each other differently in the face of openness? How do works councils deal with how low-wage outsourcing sparks upskilling and increasing difficulty to unionize high skilled workers and loyalty to the union for whom this upskilling might be more of a problem? Does this vary across skill level of works council? Research should also be extended to include other sectors, more varying in their openness and skill-level and technology profile -- to provide more contrast to the relatively open and skilled segments of metal industry studied here. Investigation of the implications of varying skill profiles across plants should be enhanced. And at the sectoral level, more effort should be put into linking bargaining outcomes with trends in union density and different faces of economic globalization.
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**Sources**

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Interview chairman works council 3/02/2003.
Interview chairman of works council 25/3/2003
Interview 25/3/2003
Interview HR manager 16/04/2003.
Interview P. Krüger 16/04/2003.
Interview HR manager 29/04/2003.
Interview Grass, 5/05/2003
Interview Riederer 8/5/2003
Interview 8/5/2003
Interview works council 19/5/2003
Interview manager 19/05/2003
Interview Frank 23/5/2003

Official website of Siemens in Hungary, [http://www.siemens.hu](http://www.siemens.hu)
### Table One:
**Trade, FDI and Portfolio Flows Versus Openness, 1961-95**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>z-stat. (pcse)</th>
<th>(2)</th>
<th>z-stat. (pcse)</th>
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<tr>
<td><strong>Union density (t-1)</strong></td>
<td>-0.05***</td>
<td>(-4.12)</td>
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<td><strong>Flows</strong></td>
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<td>ΔTrade</td>
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<td>-0.01</td>
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<td>(0.18)</td>
<td>0.02</td>
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<td>(1.38)</td>
<td>0.05</td>
<td>(0.85)</td>
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<tr>
<td>Portfolio t-1</td>
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<td>(0.82)</td>
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<td>(0.13)</td>
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<tr>
<td><strong>Openness</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>ΔTrade protection</td>
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<td>0.05</td>
<td>(1.48)</td>
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<td>(0.02)</td>
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<td>(0.09)</td>
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<td><strong>Controls</strong></td>
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<td></td>
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<tr>
<td>Unemp t-1</td>
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<td>(-0.05)</td>
<td>-0.01</td>
<td>(-0.20)</td>
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<td>Inflation t-1</td>
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<td>(-3.04)</td>
<td>-0.07**</td>
<td>(-3.04)</td>
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<tr>
<td>(log) population t-1</td>
<td>3.48**</td>
<td>(2.31)</td>
<td>3.56**</td>
<td>(2.06)</td>
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<tr>
<td>Service empl. t-1</td>
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<td>(1.53)</td>
<td>0.03</td>
<td>(1.01)</td>
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<td>Civ.Gov.Empl. t-1</td>
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<td>(4.84)</td>
<td>0.09**</td>
<td>(2.32)</td>
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<td>(1.44)</td>
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<td>(-2.18)</td>
<td>-34.23*</td>
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*Note: Fixed-effects OLS error-correction model with OLS coefficients, panel-corrected standard errors, presuming panel-wise heteroskedasticity (z-statistics in parentheses). (1) with autoregressive term; (2) with AR(1) correction, without lagged dependent variable. Estimated using STATA 6.0 xtgls. Country and year dummies are not shown for estimation.


*** p < .01
** p < .05
* p < .10
Table Two:
Low-wage and High-Wage Trade (1961-95) and FDI (1980-99)

<table>
<thead>
<tr>
<th></th>
<th>Trade flows\textsuperscript{a} 1961-95</th>
<th>Outward FDI flows\textsuperscript{b} 1980-99</th>
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<td>0.02*</td>
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<td>LDC Flows \textsuperscript{t-1}</td>
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<td>(-1.13)</td>
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<td>-0.07*</td>
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<td>Unemp\textsuperscript{t-1}</td>
<td>-0.02</td>
<td>-0.04</td>
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<td>Inflation \textsuperscript{t-1}</td>
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<td>-0.06**</td>
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<tr>
<td>(logged) pop. \textsuperscript{t-1}</td>
<td>4.34***</td>
<td>4.83**</td>
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<td>0.03</td>
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<td>Civ.Gov.Empl\textsuperscript{t-1}</td>
<td>0.17***</td>
<td>0.10**</td>
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<td>Barg.Centltzn. \textsuperscript{t-1}</td>
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Wald chi2(41-60) 382.33 224.39 134.45 110.30
Country dummies Yes Yes Yes Yes
Year dummies Yes Yes Yes Yes
No.Obs. 532 532 213 213

Note: Fixed-effects OLS error-correction model with OLS coefficients, panel-corrected standard errors, presuming panel-wise heteroskedasticity. (1) with autoregressive term; (2) with AR(1) correction, without lagged dependent variable. Estimated using STATA 6.0 xtgls.

Country and year dummies are not shown for estimation.

\textsuperscript{a} Imports plus exports as share of GDP

\textsuperscript{b} Outward FDI flows as share of GDP


\* p < .10

\** p < .05

\*** p < .01