

The Double Burden on Maquila Workers: Violence and Crisis in Northern Mexico

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Abstract:

During 2010, production and sales increased and investment recovered in assembly-for-export or maquilas in Mexico's northern border, including in those cities with high rates of drug-related crime, in the aftermath of the 2007 credit crisis. The case of maquiladoras in Mexico's northern border challenges those interpretations that render insecurity and economic liberalization incompatible and associate export-oriented development with the enhancement of political, economic and civil rights. The paper argues that the Mexican state has mediated the relationship between global processes of competition and local contexts of violence by transferring the costs of insecurity and restructuring onto maquila workers through downward pressures on wages and benefits.

The paper focuses on maquiladora production and labour activism in the border city of Matamoros, located in the state of Tamaulipas. Matamoros is one of the oldest maquiladora cities, along with Tijuana and Ciudad Juarez. Also, the concentration of the local economy on auto parts production and dependence on US investment and American markets intensified the effects of the American financial and the auto sector crises on this city. In addition, maquiladoras in Matamoros are characterized by some rank-and-file unionism that focuses on the protection of workers' wages and fringe benefits. This activism is led by the Union of Day labourers and Industrial Workers of Maquiladoras (Sindicato de Jornaleros y Obreros Industriales de la Industria Maquiladora or SJOIIM).

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In April 2010, Carlos Pascual, American ambassador in Mexico, stated that the escalation of drug-related violence in the country triggered capital flight (*Business Week*, 10 April 2010). That same month, the American Chamber of Commerce announced new investments in Mexico worth 2.5 billion-dollar (*El Universal*, 21 April 2010). During that year, production and sales increased and investment recovered in assembly-for-export or maquilas in Mexico's northern border, including in those cities with high rates of drug-related crime. Most investment in maquiladoras has increasingly been concentrated on complex manufacturing in the auto parts and electronics sector.

The case of maquiladoras in Mexico's northern border challenges those interpretations that render insecurity and economic liberalization incompatible and associate export-oriented development with the enhancement of political, economic and civil rights (Keohane and Nye 2001; Dahl 1998). Likewise, the Mexican case shows how the shift from simple assembly to complex manufacturing and research and design in has not necessarily improved wages and working conditions maquiladoras as several analysts suggested (Barajas and González 2007; Carrillo and Gomis 2005).¹

In contrast to these explanations, the paper argues that the current characteristics of international competition makes firms, particularly transnational manufacturing companies, more sensitive to small variations in investment location and the particular characteristics of local labour markets and infrastructures. In the specific Mexican case, the state mediates the relationship between global processes of competition and local contexts of violence by transferring the costs of insecurity and restructuring onto maquila workers through downward pressures on wages and benefits.

The paper focuses on maquiladora production and labour activism in the border city of Matamoros, located in the state of Tamaulipas. Matamoros is one of the oldest maquiladora cities, along with Tijuana and Ciudad Juarez. Also, the concentration of the local economy on auto parts production and dependence on US investment and American markets intensified the effects of the American financial and the auto sector crises on this city. In addition, maquiladoras in Matamoros are characterized by some rank-and-file unionism that focuses on the protection of workers' wages and fringe benefits. This activism is led by the Union of Day labourers and Industrial Workers of Maquiladoras (Sindicato de Jornaleros y Obreros Industriales de la Industria Maquiladora or SJOIIM).

First, I draw on a historical materialist geographical framework to understand the contradictory processes of investment mobility and fixity. Second, the paper offers a general overview of Mexican maquiladoras, particularly in the aftermath of the 2007 US mortgage crisis. Third, the effects of international competition in consumer and financial markets on the organization of space within and outside production plants in Matamoros are focused upon. Fourth, I discuss how the 2007 mortgage crisis and the automotive crisis of 2008-2010 increased contradictions between mobility and fixity. Fifth, I examine the

¹ The idea is that complex manufacturing and research and design involve more skilled labor, which is usually remunerated with higher wages.

role of the Mexican state in reproducing the spatial conditions for accumulation and transferring the costs of increasing drug-related violence onto workers in the northern border. Finally, the paper emphasizes the importance of labour activism in countering both economic and physical insecurity.

Between Fixity and Mobility: The Spatial Dynamics of Capitalist Competition

In order to understand why drug-related violence in Mexico has not triggered a massive capital flight from maquiladoras, it is important to address how capital mobility increasingly relies on the spatially embedded particularities of local labour markets and infrastructure and its constant geographical organization. Financial mobility, innovations in transportation and technology and increasing market competition compel firms to adapt production to local conditions to both attain the targets of profitability set by financial markets and compete on the basis of costs, quality, differentiation and speed (Munoz Martinez 2008; McKay 2004, 174).

This trend has been intensified by financial derivatives. Unlike bonds and stocks, which involve the selling of a right to the income stream, financial derivatives do not have this income stream. Instead, financial derivatives unbundle all aspects of a firm, including production, labour costs, productivity, fixed assets, current and future capitalization, into risks or attributes. These attributes, and not the underlying asset, are priced and traded in financial markets (Bryan et al. 2009, 466). Bryan et al. argue that this cannot be dismissed as risk management instruments or speculation. Rather, financial derivatives have spread competitive calculation into all assets. “Assets that are deemed to be underperforming in reference to market norms immediately have their values written down through shifts in price of securities and derivatives” (2009, 466). This in turn intensifies competition and pressures on organizational strategies and managements, which ultimately have profound effects on labour (Bryan et al. 2008, 126).

The geographical separation of production is feasible as long as production is organized efficiently over space (Harvey 1989, 21). For that reason, greater coordination across plants has become even more important for transnational production with the rise of complex manufacturing of high tech commodities. This type of production requires particular territorial specializations to outsource and customize production and optimize costs. Specialization is reflected in the supply chain that comprises original equipment manufacturers (OEM) and several contract manufacturers and their suppliers. In this supply chain, OEMs focus on marketing and product development and outsource the rest of production to contract manufacturers and suppliers. In this way, OEMs’ cede control over production in exchange to limit their financial risks and get time-sensitive products to the market faster. Cost reduction in complex manufacturing is ensured by price and quality competition among contract manufacturers and suppliers for OEM’s contracts. Overall, this new supply chain of complex manufacturing requires OEMs to track production across several tiers of their supply chain to obtain high quality and low cost production (Herrigel 2004). This can no longer be achieved through the relocation of production where cheap labour and repression of labour exists (McKay 2004). Rather, this type of production increasingly relies on the particularities of geographical location and the constant

reorganization of space to ensure that globally dispersed production networks are cost-effective and efficient.

This reflects what Karl Marx argued was the “annihilation of space through time” in capitalism (Marx 1993, 538-539). This does not imply the disappearance of space but rather its transformations in order to accelerate the time it takes labour to turn commodities into more commodities and profits. This requires a space where capital can circulate in a coordinated way through the geographical concentration of infrastructure, transport relations, housing, labour and consumer markets and factories (Harvey 2006). Such space ensures the availability of labour and the necessary conditions to accelerate the exchange of goods from plants to final markets. This is defined by David Harvey as the structured coherence of capitalist spaces (Harvey 2001).

As complex manufacturing becomes more regionally or globally dispersed, firms’ reliance on structured coherence of the territory increases. Structured coherence facilitates the continuity of the supply chain between clients, OEMs, contract manufacturers and suppliers. The availability of workforce, and its experience in complex manufacturing, as well as the existence of infrastructure to speed the movement of goods guarantees that every portion of the production process takes place on time with minimum defects and waste. Such reliance has made firms in complex manufacturing to adapt their own requirements with local regulation and the particularities of geographical location. This makes it less likely for firms to immediately move all their operations to a cheaper location. Restructuring in the existing location therefore becomes a more viable alternative for corporations than simply relocation especially when firms require more specialized forms of labour power, inter-firm relations, and infrastructural conditions.

Capital’s reliance on local structured coherence and the geographical mobility of investment and finance creates tensions between fixity and mobility under capitalism. Such tension is mediated by the intervention of the state, particularly in the reproduction of structured coherence (Lefebvre 2001, 354). This involves state investment in infrastructure and state legislation to shape labour markets and the form of investment. This not only helps the state to facilitate accumulation but also reasserts its political power as the regulator and guarantor of markets and property relations (Brenner & Elden 2009). At the same time, the state remains a site of struggle, where class power is institutionally materialized, and therefore the state also mediates social conflict (Poulantzas 1975, 25).

The structured coherence of capitalism also intertwines with processes of localized and generalized violence and crime. This leads to a further fragmentation of space to accommodate capital’s requirements of production and reproduction, state strategies of political domination and control. New forms of spatial segregation are created through urban enclosures, namely the isolation of some groups into fortified of political domination and the n and private enclaves for housing, work and recreation (Caldeira 2000, 3). This type of spatial segregation has led to the implosion of public life, that is the withdrawal of the population, and their forms of political expression, to private spaces where they feel more secure. These transformations intensify market exclusion because social and physical barriers keep vulnerable groups outside these secure and private spaces.

The political struggles and social conflict reflected in the state and state policy always have a spatial expression as reason social space remains an arena of contestation. Social actors reside in space and their political, social and economic activities take place in concrete locales. As a result, they have interests in the control of activities in their surroundings (Harvey 1989). In this arena of contestation, the logics of domination of the state and appropriation by subordinated groups over social space confront each other. On the one hand, the state organizes space along the lines of market profitability and political control and, on the other hand, subordinated classes appropriate space in creative way for community needs outside the logic of the market.

Maquiladoras and the Global Crisis

In the 1960s, the Mexican state implemented the Border Industrialization Program. Through this program, foreign manufacturers could set up and fully own maquilas along a 12.5 mile strip contiguous to the Mexican northern border. These plants could import machinery, raw materials and components on a duty free basis while using low-wage Mexican labour. These assembly plants had to guarantee that the totality of maquiladora imports and produced goods would be re-exported so as to protect domestic industries from foreign competition (Carrillo and Gomis 2005, p. 30). This model consolidated during the 1990s, particularly after the signing of the North American Free Trade Agreement (NAFTA) as tariffs were lowered and production was organized regionally within the North American trade bloc. This was reflected in the concentration of maquiladora investment on the electronics and the auto sector and maquiladoras' share in Mexico's exports and employment rates. By the 1990, the maquiladora sector was almost half of Mexico's exports and most jobs in maquilas (70 percent) were concentrated on the electronics and the auto parts sector. Maquiladoras provided about 79 percent of jobs in Mexico's northern border (De la O 2006, 237).

Maquiladoras were the main development strategy under the 70 year one-party rule regime of the Revolutionary Institutional Party (PRI). The implementation of such export-oriented model based on low wages was facilitated by the corporatist structure. This regime was characterized by the clientelistic networks between the Executive and leaders of the three main labour union confederations (Regional Mexican Workers Confederation or CROM, the Revolutionary Confederation of Peasants and Workers or CROC and the Confederation of Mexican Workers or CTM). Under this regime, the union leaders maintained their power as long as they complied with the PRI's needs of repression and consensus of Mexico's labour movement. This corporatist regime helped to weakened labour activism in Mexico's border in order to guarantee low wages and standards of working conditions for maquiladoras (Cowie 1999).

Maquiladora-based development continued even after the Vicente Fox, the center-right Action National Party's (PAN) candidate, won the presidential elections in 2000. This can be seen in continuation of tax-exemptions through the implementation of the Industry Promotion Program (Programa de Promoción Sectorial or PROSEC) and the Manufacturing Industries, Maquiladora and Export Services Decree (Decreto de la Industria Manufacturera, Maquiladora y de Servicio de Exportacion or IMMEX). PROSEC reversed NAFTA's overturn of maquilas' right to temporally import goods from non-

NAFTA countries without paying duties. IMMEX expanded the advantages of maquiladoras such as tax and duty exemptions, to manufacturing plants and service industries and diminishes export requirements from 30 percent to 10 percent.

The 2007 US mortgage crisis and the 2008 auto sector crisis had a deep impact on maquilas because of Mexico's dependence on American investment and markets. In 2008, the number of people employed in maquilas decreased 3.1 percent in relation to 2007. By 2009, the number of jobs decreased even further by 15 percent. Total maquila exports decreased 36 percent in 2009. At the same time, the number of maquila plants increased and remained relatively stable during 2008 and 2009 in comparison to 2007 (CNIME 2009). In Matamoros, the crisis increased unemployment, technical shutdowns and a series of plant restructurings. By March 2008, 3000 jobs were lost in the city (*El Bravo*, 19 June 2008). Most companies fired their workers and re-hired them with a new contract, which included less fringe benefits, more working workers and lower wages.

The current Felipe Calderon Administration (2006-2012) from the PAN responded to the US credit crisis with the Program for the Development of High Tech Industries or PRODIAT. PRODIAT focuses on those exporting sectors producing vehicles, auto parts, electronics and machinery. With this program, the Mexican state allowed companies to have production stoppages and absorbed some of the labour costs. In exchange, planned job cuts have to be limited to a third of the decline of sales (DOF 2010). Overall, the Ministry of the Economy spent almost 150 million dollars in this program. A third of these resources were channelled to the auto sector (Galhardi 2009, p. 2). At the local level, the government of Tamaulipas, where Matamoros is located, responded to the crisis with a discretionary two-month allowance of 150 dollars for the recently unemployed and the promotion of investment overseas.

During the most recent crisis, the levels of drug-related violence in Mexico's border with the US also increased. In 2007, 2275 deaths were related to organized crime. By 2008, there was a hundred percent increase. Between 2009 and 2010, over 12000 people have died because of conflicts among drug cartel and the war waged by Calderón against organized crime (*Reforma*, 16 July 2010). In Tamaulipas, 373 people have been killed during 2010, including two candidates for municipal elections from the Party of the Democratic Revolution (PRD) and the PAN, and the PRI candidate for the 2010 state government elections.² In Matamoros, the war against drugs and the conflict between the Zetas and the Gulf Cartel over Matamoros have increased the number of shootings, extortions and obstruction of main avenues and highways.

Despite this violent scenario, industrial activity in Mexico grew 8.4 percent annually by May 2010 and foreign investment in the manufacturing sector increased 34.6 percent Mexico's attractiveness for investment ranked 8th worldwide this year, up from 19th at the end of 2007, according to A.T. Kearney's FDI Confidence Index for 2010 (*Wall Street Journal*, 25 January 2010). Employment in maquiladoras increased 2.9 percent in February

² Over 80 years, the PRI has had an influential majority in the local congress and ruled without interruption in the state government of Tamaulipas.

2010 and sales in maquilas and other export industries (IMMEX) increased by 23.6 percent (CNIME 2010). In 2010, the number of jobs in Tamaulipas' maquiladoras increased over eight percent. Tamaulipas is the fourth largest recipient of foreign investment in the country. Early this year, 20 million dollars were channelled towards new investment and expansion of existing capacity in Tamaulipas' maquiladoras (*El Economista*, 30 de June 2010). Nine companies had expansion projects in Matamoros and eight new companies started operations in the city with a global investment of US \$450 million and the creation of 7250 new jobs (*Expresso Matamoros*, 27 January 2010).

This scenario raises the question of why and how maquiladora investment is recovering after the global crisis despite existing violence and insecurity in Mexico's border. This can be explained by addressing the tensions between capital mobility and the increasing reliance of current international competition on specific features of local economies that guarantee cost-effective and high quality production.

Financial Pressures and Productivity in Mexico's Border

The current crisis has made more evident the role that finance plays in setting the pace of production and restructuring. This can be seen with credit default swaps (CDS) linked to the auto parts sector. Auto parts companies were widely used as a reference entity of CDS prior to the US mortgage crisis of 2007. Through a credit default swap, a protection buyer paid a protection seller – a hedge fund or an investment bank – a fee per year to get payment of the full face value of the securities of an auto parts company – the notional amount – in case of bankruptcy filing. Buyers of CDS did not have to own any of the company's shares or bonds or suffer any loss in case of bankruptcy. The seller of protection took the default of risk of auto parts companies without having lending costs or interest rate risks. In this operation neither the buyer nor the seller had to ask permission to the company to conduct this operation. In fact, CDS could be issued even if the cash bond was not available. Most of these CDS were a bet on the company's credit worthiness and profitability, in which any financial player could participate. In this way, CDS fragmented production and assets into credit risks (Mengle 2007).

These credit risks measured in real-time the ability of the auto sector to repay debt and meet profit targets through more sales and cost reduction in its operations. When pressures on the performance of the auto sector mounted because of increases in the sale and the spread in CDS, auto parts companies' liquidity problems intensified (*Financial Times*, 6 August 2005). This signalled markets that further investment in the auto sector was no longer profitable, regardless of sales and efficient production. Some of these firms either filed for bankruptcy and/or undertook restructuring to cut costs, guarantee debt repayment, ensure future capitalization through debt and demonstrate financial markets their potential for restored profitability. Such process was complicated by the US credit crisis in 2007 and GM's bankruptcy filing in June 2009.

Financial pressures in the onset and aftermath of the 2007 American mortgage crisis had deep implications on Mexican maquilas because of their tight connections to the auto sector and North American markets. Financial expectations on firms' profitability in financial markets, particularly from derivatives investors, ultimately relied on the spatial

reorganization of these firms operations and the intensification of control at the workplace to reduce production costs and increase productivity. This is the case of industrial activity of Matamoros where the two largest auto parts and electronics manufacturers in the city in 2003, Delphi and Kemet, implemented lean manufacturing systems (Gibson et al. 2003).

Unlike quality control practices of the early 1990s, which focus on the detection of errors in the final phase of production, lean manufacturing is based on the flexible organization of multi-task workers to adapt production to market needs and eliminate any possibility of defects, inactivity or interruptions in the use of installed capacity and just-in-time production (Fonseca et al. 2006). The reorganization of space was evident in lean manufacturing practices of cell production. Here, multi-skilled workers were grouped together to undertake a particular part of the production process including quality control. Each cell then delivered finished items on to the next cell in the production process. Prior to this, 18 to 25 people produced a dashboard in one of Delphi's plants in Matamoros. With cell production, the same dashboard was produced by half the number of people (Quintero and Dragustinovis 2006, 65). Also, Delphi used micro-movement analysis to change the organization of production in its Matamoros plants and optimize each worker's actions in order to optimize each motion. If a worker spent an extra-second looking for a toll, the tool was put in a different place to facilitate its access and allow the worker to complete her task faster.

Lean manufacturing increased quality and productivity and reduced costs in Delphi's operations in Matamoros. Between 1995 and 2000, one of Delphi's plants had a 20 percent increase in productivity levels and 75 percent quality improvement. Also, lead time was reduced by 72 percent (*Automotive Design Production*, April 2000; *Lean Directions*, 22 March 2002). The rejection rate of shipped products was reduced from 3000 pieces per million (ppm) to 10 pieces in five years. Also, Delphi used 99.7 percent of this plant's installed capacity (*Industry Week*, 1 October 2000). Tasks in production, which were usually carried out while seating, were now performed standing up, which resulted into 30 percent floor space reduction (Pers. comm. 1, 2009, 25 November). Similarly, other companies such as Delphi's supplier Kemet undertook comparable organizational practices in its Matamoros plant. As a result, Kemet reduced customer complaints from .49 ppm to .32 ppm's between 2005 and 2007. During that same period, the company had 20 percent reduction in its logistics cost, 62 percent decrease in the costs of its in-process inventory. At same time, Kemet increased its sales by 37 percent as well as its pieces per person rate from 1.1 million pieces to 3.4 million pieces (Shingo Prize 2008).

While productivity improved and lean and complex manufacturing expanded in Matamoros, wages did not increase significantly. Annual wage increases in Matamoros remained an average of five percent between 2000 and 2006 despite the fact that inflation rates fluctuated between nine and five percent during those years (de la O 2006). Wage increases were partly replaced with a one-time discretionary bonus per year and benefits such as sick pay for the first three days of absence were lost. Likewise, worker's trial period increased from a minimum of thirty to sixty days (*El Bravo*, 16 December 2004; pers. comm. 1, 25 November 2009).

In this new context of international competition, maquiladora workers not only face pressures from consumer markets to produce cheaper and better, but also from financial markets. The latter rely on the daily valuation of the performance of assets in real time as comparable risks. The human labour behind these assets, including its cost, skills and use of time and space, are continuously measured by derivatives. Companies need to prove financial markets their existing and future profitability to ensure future capitalization and remain in business. This ultimately relies on workers, who need to demonstrate their ability to attain their employers' targets of return to keep their jobs. Overall, the targets of profitability set by financial markets rely on the further fragmentation of the production process and the reorganization of space within the plant as well as the intensification at the workplace to reduce production costs, increase productivity and ensure quality.

Crisis and the Structured Coherence of Complex Manufacturing in Maquiladora Production

Transnational production and financial markets' search for profits and quality and low cost production show the tension between mobility and fixity in Matamoros' maquilas. As production becomes more internationally dispersed and financial markets quantify and turn every aspect of production into debt, international competition increases. Companies compete in both consumer and financial markets through the lowering of costs and high investment returns. This makes small differences in local production conditions more crucial for investment decisions, particularly in the context of complex manufacturing and the increasing financial orientation of industrial firms. For that reason, firms no longer depend on simply relocation where labour is cheap and coerced. Rather, international competition in consumer and financial markets as well as complex and dispersed systems of production require network coordination and quality and flexible production. This relies on particular infrastructures and labour markets to secure workers' commitment to deliver high quality production in short-product cycles and comply with speed-to-market delivery standards.

The particularities of Matamoros' economic geography make this location an important site of accumulation for transnational firms, particularly in the auto sector. First, Matamoros is close to North American markets which accelerate the pace of exchange between production and final markets. The structured coherence of Matamoros has transnational characteristics, particularly in relation to Brownsville and the Lower Texas Valley. This includes international bridges, binational railways, highways connecting to US markets and deep-water port facilities at Brownsville and Corpus Christi for ocean cargo. American firms also have distribution facilities and administrative offices on the US side and rely on the US border for some legal, accounting and financial services as well as industrial suppliers (Team NAFTA 2010). In fact, this has become one of the main attractions for new investment: "Ultimately, the company chose the Brownsville-Matamoros international metroplex for the logistics advantages of the Port of Brownsville and the availability of the labour skill set utilized in the wind turbine manufacturing industry of Matamoros" (*Site Selection Magazine*, July 2010).

Second, Matamoros labour markets have extensive experience in the auto parts sector and complex manufacturing. The early location of the auto parts sector in

Matamoros is related to the proximity of the auto parts industry in the Mideast of the US (Quintero 1997, 60). Initially, Maquila investment in Matamoros did not only rely on low production costs early in the maquiladora strategy but also on the continuous restructuring and adaptation of production to changes in international demand (Ibid.). Third, Matamoros physical and social infrastructure is mostly oriented to maquiladora production in Matamoros. This includes roads, utilities, industrial parks, housing, health and education services that support production. This gives further advantages to firms to have available labour and speed up delivery of products within the network of contract manufacturers and suppliers.

When the 2007 mortgage crisis and the 2008 auto sector crisis affected firms with investment in maquiladoras, they did not simply relocated their entire operations to cheaper production sites to reduce costs. Rather, the contradiction between investment mobility and firms' reliance on local structured coherence was resolved through internal restructuring. As David Harvey notes, crisis under capitalism become "irrational rationalisers" because they enforce order onto capitalist development to solve its own contradictions (Harvey 1989). This can be seen in Matamoros, where companies laid off almost 6700 people in 2009 (*Proceso* 1 March 2010). Most of these workers were re-hired with a new contract. While the old contract stipulated a 40-hour working week with a payment rate equivalent to 56 hours per week, the new contract increased the duration of the working week to 48 hours with almost a 50 percent reduction in wages. For instance, Delphi in Matamoros sold two of their plants and terminated the contract of most of its workers in another plant. In the latter, 80 percent of the workforce was re-hired with a new contract. Workers with a contract of forty hours and about 100 dollars per week had their salary reduced to fifty eight dollars and their workweek extended to forty eight hours (Pers. comm. 4, 2010, 13 January; Pers. comm. 5, 2010, 15 January). This practice was generalized to most maquiladoras in Matamoros. For instance, Teccor de México announced this year the suspension of one thousand workers, who were later on hired again with a wage of 46 dollars for a 48-hour working week instead of their previous wage of 76 dollars for a 40-hour working week (*Proceso*, 1 March 2010).

According to maquiladora managers in Matamoros, the city has become more competitive wage costs have been cut by half. Also, the learning curve is steep because it takes new companies less time to train their workers in Matamoros than in their other operations (Pers. Comm. 5, 2010, 15 January). Such conditions have made it profitable for new companies to invest in the city. This explains the arrival of at least six multinational companies in the city between 2009 and 2010 (*Impacto Noticias*, 28 May 2010).³ Most recently, several plants, including those that moved part of their operations to China, expanded their operations and/or relocated their operations back from China to Matamoros (*Hoy Tamaulipas*, 1 June 2010).⁴

The case of Matamoros and the general trend in the maquiladora sector indicates that lean manufacturing and higher levels of productivity and quality do not necessarily translate into better wages and workers' empowerment. In fact, working hours in maquiladoras increased 7.7 percent in 2009, whereas salaries decreased 1.4 percent (*El*

³ These multinationals are Inteva, Mexiquem, Tyco, Hilti, Invensys, Cs Wind.

⁴ These companies are Kemet, Tyco and Starkey.

Economista, 18 May 2010). The actual outcome of lean manufacturing has been the intensification of work so as to secure a global market share and valorization in financial markets, particularly after the 2007 mortgage crisis. The recent changes in maquiladoras in Matamoros also shows how finance, and the crises it causes, is not merely speculation but rather a mechanism of market discipline to solve contradictions between companies' higher reliance on local structured coherence of production, on the one hand, and higher profit targets and demands for high quality and low cost production.

The Mexican State and the Managing of Crisis and Insecurity

The local fixity necessary to guarantee high quality production and low costs depends on the intervention of the state at the municipal, state and national level. Maquiladoras and its resulting infrastructure is not the automatic result of the availability of cheap labour and free trade. Rather, the role of the Mexican state remains crucial to shape labour markets, provide physical and social infrastructure and implement policies that promote maquila investment (e.g. tax breaks and subsidies and investment and export promotion). This can be seen in the continuation of federal tax incentives in the last two PAN presidential administrations. Likewise, the recent IMMEX program seeks to expand the maquila model to other sectors and parts of the country.

Subsidies are also central to the federal government's response to the crisis. This is the case of PRODIAT, which subsidized production in the transportation as well as the electronic sector. Instead of limiting the effects of the crisis, the Mexican state socialized maquiladoras' production costs. In some cases, the state's efforts to retain jobs in the country by providing financial incentives to auto parts companies were futile because companies ended up selling their plants in Matamoros. This is the case of Delphi, the largest employer of the city.

As internal competition for maquiladora investment intensifies within Mexico, local incentives become more important for investment decisions. For instance, when new investment arrives, the state government of Tamaulipas waves the payroll tax by two percent the first years. Later on, the government waives this tax by 50 percent.⁵ Incentives at the municipal level include the reduction or elimination of the registration due of real estate.

The structured coherence of cities like Matamoros has also relied on infrastructural spending by the state. Infrastructure under capitalism is not often undertaken by the private sector itself without state support because it withdraws capital from current production and absorbs further capital to compensate for maintenance (Harvey 2001). Capital requires the intervention of the state to socialize the costs of physical and social infrastructure. Such intervention has been particularly important for the maquiladora sector in border cities, which not only require a local built environment but also a binational infrastructure.

Industrial parks are also an important aspect of Mexico's borders structured coherence and they are financed by private investment. Still, these parks have received large financial state support. For instance, the state of Tamaulipas provides subsidies for

⁵ The municipality does not handle tax incentives, but rather the state government.

the purchasing of machinery and land in strategic areas, installation of utilities and road access to main highways, ports and railways (SEDEEM 2010). In most recent years, special attention has been placed by the state government on social infrastructure in the form of employer-led post-secondary education and vocation training. Matamoros has two main government-sponsored technical schools that provide two and three-year education, and two public post-secondary institutions that train engineers and technicians. This social infrastructures move away from broad skill development to more job and firm-specific skills that facilitates the implementation of standardized global systems of production and provides skilled cheap labour.

State investment in physical and social infrastructures has been one of the main responses to the crisis.⁶ For instance, there is a recent initiative to create an auto parts cluster in Matamoros based on a partnership between maquila investors, government and post-secondary institutions (Pers. comm. 2, 2010, 2 December). The state and the municipal government have provided tax incentives and subsidies for initial investment in this cluster to agglomerate large maquiladoras, local suppliers and skilled labour in the same location. The aim is to prevent the “place-specific devaluation of capital” that often occurs during crisis.⁷ As Harvey indicates: “[capital] locked into immobile physical and social infrastructures, has to be defended if it is not to be devalued (Harvey 2007, 420).

Labour markets are key to local structured coherence because the substitutability of workforce necessary for cheap and high quality production. The Mexican state shapes these labour markets through its role in local conciliation and arbitration boards. Here, the state government determines the legality of strikes, and enforces the federal labour law in issues such as collective labour contracts, working conditions, and minimum wages through these boards. Most importantly, the Mexican state influences wage levels through conciliation and arbitration boards by approving a company’s petition to modify a collective contract, cut wages or reduce personnel and mediating the negotiations between the union and employers. In Matamoros, the state government and maquiladoras, grouped in the Association of Maquiladoras of Matamoros (AMMAC) started pressuring the Union of Day Labourers and Workers of Maquiladoras (SJOIIM) to lower its labour demands in the 1990s. According to the SJOIIM, the average annual direct increase in maquilas wages in 2001 was six percent (Pers. comm. 3 2010, 21 January). This has been reduced to four percent in the last years (*Metronoticias*, 16 February 2010).

Local labour markets have also been shaped by the political mediation of the state between the SJOIIM and maquiladoras. This has taken the form of tripartite agreements to promote collaboration between workers and employers.⁸ These agreements have been

⁶ In 2009, public spending was announced for the construction of a railway bridge and a seaport for ocean cargo, the relocation of an international railway line and the expansion an international bridge in Matamoros. That same year, the state government of Tamaulipas also recognized the importance of education to remain competitive in the maquiladora sector (Gobierno del Estado de Tamaulipas 2009).

⁷ Devaluation of built environment takes place because of technological change, the existence of cheaper locations of production and/or the obsolescence of past infrastructure.

⁸ In 2004, employers, represented by AMMAC, committed themselves to promote private investment and job creation in exchange for the main maquiladora union’s collaboration with maquilas. In this pact, unions had to give away its right to strike (*El Bravo*, 16 December 2004). Such practice initiated in 1995 with the State Agreement to Promote the New Labour Culture (Quintero 1997).

replicated during the current crisis. The state government of Tamaulipas signed a tripartite agreement with unions and the private sector, including maquiladoras, in 2009. In this agreement, the state government agreed to promote collaboration between employers and workers and subsidies for workers' training among other state measures, while employers made a commitment to leave their investment in Tamaulipas. In addition, unions agreed to adapt their wage demands to the companies' needs and reduce the number of strikes. Such agreements were successful in restraining unions' ability to strike in the aftermath of the 2007 crisis. In fact, the PAN Federal Labour Minister noted that: "there is an excellent business climate in Tamaulipas with zero strikes. This is an accomplishment of the state and municipal governments and the private sector" (*La Region de Tamaulipas*, 12 January 2009).⁹

While the case of Matamoros shows how the structured coherence of maquiladoras requires the intervention of the state, such intervention is not necessarily functional to the needs of corporations. Rather, states mediate the global movement of capital and fixed processes of production according to the national and local balance of forces. The recent juncture in Mexico shows that the reproduction of maquiladoras' structured coherence state has in fact strengthened its political power and provided advantages to local elites. At the federal level, the Mexican state has strengthened its positions vis-à-vis organized labour to advance its business agenda. At the sub national level, the state has also gained strength in relation to foreign firms and unions because both set of actors need the local state to facilitate investment in the city. In addition, local elites receive benefits by supporting the maquila model through contracts for infrastructure construction and maquiladora-related businesses.

Paradoxically, border cities such as Matamoros, which used to be portrayed as success cases of maquiladoras, are now experiencing high levels of drug-related violence. Still, maquiladora investment continues to exist in these border cities. In the case of Matamoros, firms depend upon the structured coherence of the city. For that reason, firms have chosen to adapt their own requirements to local conditions to secure production stability under complex manufacturing systems. This has entailed the reorganization of the firms' spaces for decision-making. The Brownsville Economic Development Council, a business organization on the US border, mentioned that "[s]ome maquilas have ordered their employees to keep all their meetings in their facilities. But it has not deterred any investment or business when it comes to industry" (*Brownsville Herald*, 17 April 2010). Also, management and other middle-income groups moved to the Rio Grande Valley, the Texas region near Matamoros. Within the first half of 2010, two families per day bought or

⁹ The weakened position of unions in Tamaulipas, particularly of the SJOIIM, has been the result of the intervention of the state to divide the labour movement in Matamoros since the 1990s. The PRI state government along with the federal government and the CTM allowed the creation of weaker unions in the city with affiliation to the CTM (Quintero 1997). In response to the SJOIIM's refusal to make the concessions demanded by the state and maquiladoras, the state government decided to channel maquila investment away from Matamoros to the border city of Reynosa in order to decrease the membership of the union. The strength of the Mexican corporatist system to divide the labor movement has been key in fostering maquiladoras and shaping labor markets.

leased a house on the US border (*Brownsville Herald*, 3 April 2010; 1 August 2010).¹⁰ Currently, the underlying spatial, economic and social conditions in Matamoros, and most of the Mexican border, are strong enough for profitable production, at least for financial investors and corporate headquarters, to overcome the worries about violence and its potential costs. For that reason, firms are only reorganizing some of their managerial activities across the binational space of Matamoros and Brownsville to accommodate to Mexico's violent situation and simultaneously take advantage of the profitable conditions of production in the area.

The recent changes of labour conditions of maquiladoras in Matamoros show how the Mexican state is transferring not only the costs of the recent crises but also of drug-related violence onto workers, especially with the failure of the recent militarization strategy. Several civil society organizations have pointed out that the federal strategy of militarization is ineffective and only creates more violence (*La Jornada*, 20 January 2007). However, this federal strategy remains in place to legitimize Calderón Administration after the dubious elections of 2006. As a result, militarization has not proven to be effective to guarantee the physical safety of investment and investors. For that reason, the current administration compensates the high risks caused drug-related violence with state support for cheap and high quality production. Likewise, local state elites support current economic restructuring in maquiladoras to recompense investors for the high levels of crime and violence while retaining the benefits they receive from the financial structures of drug cartels. This shows how the Mexican state is managing insecurity rather than eliminating it to reproduce current power structures, and dominate space under the logic of the market and political control.

The management of insecurity by the Mexican state has resulted into further spatial and social segregation between those that can and cannot commute back and forth from Matamoros into the United States. This makes workers and other marginalized groups (i.e. immigrants) more vulnerable to the situation of violence in Matamoros because they cannot access those "safe" private spaces in the United States, making the experience of violence more class specific (Capron & Zamorano Villarreal 2010; Caldeira 2000). This is related to the consolidation of a fragmented society that creates separate places of "privileged ghettos and apartheid of poverty," intensifying the disparities caused by the maquiladora model and the economic intervention of the Mexican state in the aftermath of the 2007 crisis (Hasam 2000).

The current juncture of insecurity has also set the conditions for the silencing of dissent to the current economic model and militarization in Mexico's northern border. In the case of Matamoros, both the economic crisis and insecurity have further limited the range of strategies that maquiladora unions, particularly the SJOIIM, can use to bargain with both employers and the state. The assassination of PRD and PAN candidates in municipal elections and the kidnapping of journalists show how any opposition to the current power structures in Tamaulipas can be repressed. Overall, fear and economic restructuring have provided state elites the opportunity to increase social control, particularly over workers and re-legitimize state power in a context of social

¹⁰ In order to buy or rent real estate in Texas, no proof of citizenship or immigration status is required (*El Universal*, 14 July 2010).

disenchantment with the outcomes of neoliberal policy and state institutions (Arteaga Botello 2005, 2006, 2009).

Making a Difference: Local Labour Activism and Social Space

The presence of rank-and-file activism in unions does make a difference for workers in the current context of crisis and violence. When Mexican labour unions are analyzed, they are often portrayed as the legacy Mexico's political authoritarian system under the PRI. Therefore, PRI unions are depicted as subordinated to the party's agenda with detrimental consequences on workers living conditions and wages (Roman and Velasco 2006, Carrillo 1994). However, several authors have pointed out that such generalizations overlook the heterogeneity of the Mexican labour movement and the rank-and-file activism even within those unions affiliated to the PRI (Quintero 2003, De la O & Quintero eds. 2002). In fact, this heterogeneity has been influenced by the local contexts in which organized labour emerge, particularly their economic history and its relationship with the state at the sub-national and national level.

This is evident in the historical trajectory of the SJOIIM. The existence of the cotton processing industry set the foundations of a strong local union movement (Quintero 1997, pp. 122-127; Quintero 2004, p. 295). During the 1990s, the SJOIIM played a large role in the collective bargaining with firms and retained most of the benefits obtained during the 1980s – a forty-hour contract, extended health benefits, investment in affordable housing and seniority rights – that were almost non-existent in other parts of the Mexican Northern border (Quintero 2004, 287-88). These accomplishments were partly created by the concentration of investment on the auto parts sector in Matamoros. This led to the expansion of the SJOIIM's union membership and the workers' attainment of skills and experience required by firms. The latter was a bargaining chip for the SJOIIM against the employers' threats of investment relocation. As Cowie notes, the "search for cheap labour has its own subversive logic" for firms because the required qualities of labour markets and workers' skills for complex manufacturing remain place bounded (1999, 6).

The SJOIIM's has in fact attenuated the effects of the crisis on workers through the permanence of fringe benefits in the collective contract and their investment in physical and social infrastructure. Important fringe benefits remain in the collective contract such as workers' medical examinations paid by the employer every six months or every three months if the employee is exposed to toxic substances. According to the collective contract, medical attention must also be provided by the company during and after pregnancy. Employers are also required to grant a certain number of scholarships to their workers' children and sponsor workers' sport activities. Employers also have to pay all of workers' contributions to social security as well as their income tax (Pers. Comm. 1, 2009, 25 November; *El Bravo*, 10 January 2008.)

The union's role in shaping local labour markets is also a negotiating asset to retain some fringe benefits. The union shapes local labour markets in three ways. First, it coordinates the supply of labour to maquiladoras. Workers go to the union to fill up job

applications. Maquiladoras with a SJOIIM's collective contract can request workers from the union at any time. The SJOIIM selects workers, who later on go to the company for training. Second, SJOIIM's focus on workers' elementary and secondary education and training have created a labour market that adapts to production demands, resulting in high quality and flexible cheap labour. Third, SJOIIM's extensive presence in the community remains pivotal in mediating labour conflicts and preventing further discontent with the current economic conditions and state policy. Overall, the SJOIIM's role in shaping labour markets gives the union some political leverage to negotiate the permanence of fringe benefits in the collective contract.

SJOIIM's strategy of labour activism has also been based on the appropriation of social space. The SJOIIM has employed union dues to build medical and day care facilities, working class neighbourhoods, schools and recreational spaces. It also subsidizes workers' medication as well as private health consultations and provides library and computer lab services. In addition, retired workers can retain these benefits by paying a reduced union fee. SJOIIM's spending on physical and social infrastructures have allowed the union to appropriate public space rather than dominate it. More specifically, the construction of neighbourhoods, medical and daycare facilities as well as areas for recreational activities represent a transformative process of space where workers give meaning and use these spaces in their own ways outside the logic of the market. Indirectly, the SJOIIM challenges the current logic of social and spatial exclusion. For instance, the construction of private health care facilities allows workers to have access to services that are only available to middle and high income groups. Likewise, the union's spending on housing and schools allows workers to indirectly participate in the planning of their own surroundings, which is often left to the market or the state in the (re)creation of structured coherence. This differs from the domination of space exerted by the state's economic and military intervention.

The presence of the SJOIIM in the locality has made a difference for workers in the aftermath of the 2007 mortgage crisis. This can be seen when Matamoros' working hours, employment rates and fringe benefits are compared with other important maquiladora cities such as Ciudad Juarez, Reynosa and Tijuana, which are characterized by very weak union activism. For example, the number of monthly of working hours per individual worker is greater in Reynosa than in Matamoros. In both cities, maquila workers earn almost the same wage. Whereas the number of working hours in Matamoros increased nine hours each month between 2009 and 2010, Reynosa's workforce spent twelve hours more at maquilas during the same period. The proportion of lost jobs in Reynosa and Ciudad Juarez reached 24 and 26 percent of maquiladora jobs respectively between 2007 and 2010 (INEGI 2010). In contrast, Matamoros maquiladora jobs decreased 18.96 during those same years. Maquiladoras have reduced their spending on fringe benefits by 15.48 percent in Tijuana and 22.48 percent in Reynosa in the last three years (INEGI 2010). In Matamoros, money spent on fringe benefits only decreased by 0.42 percent. As Kathryn Kopinak and Cirila Quintero note, maquiladora workers' enjoyment of their rights and the improvement of working conditions depend on the kind of labour union that represents these workers (2004).

However, the SJOIIM's appropriation of social space and the local identity it creates also constrains workers' geography of social action (Cowie 1999, 189). Fringe benefits and the social and physical infrastructure remain exclusive to the SJOIIM membership. Division of the labour movement remains in place, obstructing the possibility of union cooperation and community politics. Still, the experience of labour activism and appropriation of social space by the SJOIIM allow us to understand the importance of rank-and-file activism in the Mexican context and their control over social space to counteract the social and spatial exclusion caused by drug-related violence and the current crisis.

Concluding Remarks

The Mexican case shows how the current context of international competition increases the contradictions between the mobility of capital and its reliance on the fixity of structured coherence. This occurs because international competition, particularly in complex manufacturing, requires both high quality and cheap labour as well as physical and social infrastructures that accelerates the turnover of capital. The increasing insecurity related to drug violence has not deterred investment in this region because of the existing structured coherence and the advantageous conditions that several firms have found in Mexico's northern border, particularly after the mortgage and the auto sector crises. This reproduction of the structured coherence in Matamoros has not been the mechanical outcome of free trade and maquilas. Rather, the Mexican state has been influential in fostering the physical and social infrastructure and labour markets necessary for maquiladora production. At the same time, the Mexican state has passed the costs of increased violence onto workers through the lowering of wage demands and the fragmentation of the labour movement in order to maintain the current economic model, legitimize state power through militarization, leave untouched the economic benefits state elites receive from drug violence and silence dissent. This has led to a double burden on workers. The deterioration of their working conditions and their vulnerability to violence has materialized spatially in the form of urban segregation and the destruction of public spaces and forms of political expression. The case of Matamoros, however, shows the importance of labour activism in ameliorating the effects of the crisis and violence through the negotiation of fringe benefits and the appropriation of space. The challenge, however, is to go beyond the dynamics of competition among unions and individual to foster community politics that aim at creating public spaces of inclusion, particularly in Mexico's northern border.

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