Family Violence over the Business Cycle

Michèle Tertilt
University of Mannheim

Gerard van den Berg
University of Mannheim

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1 Introduction

It is generally acknowledged that recessions are costly for society. Usually the costs are quantified as direct economic costs due to unemployment and reductions in production. Recently, it has been acknowledged that recessions have direct non-monetary costs as well. Recessions increase the stress level among those whose job security is affected, they negatively affect individuals' non-monetary well-being, they cause rises in suicides, and they negatively affect the health of those born in the recession. In this paper we estimate the effects of the business cycle on the occurrence of domestic violence. For the victims, domestic violence is among the most traumatic events conceivable. Victims (typically, children and female spouses) are often tied to the perpetrator in a relationship of economic and emotional dependence. The current recession has hit men aged 18-65, who are the usual perpetrators, especially hard. Effects of job loss and economic hardship and deprivation on domestic violence may therefore be more relevant than ever before.

The empirical analysis of such effects is not trivial. Statistics on domestic violence are usually not collected in conjunction to statistics on (changes in) the labor market conditions of the perpetrators. More in general, violence is often studied with choice-based samples or samples that exclusively contain victims. In this paper we do not restrict ourselves to the estimation of causal effects for perpetrators who experience a specific experience like a job loss or prolonged unemployment. After all, in a recession, many individuals who do not experience a job loss nevertheless live in fear of a job loss, or they experience a loss in income. Moreover, job losses and unemployment are selective at the individual level. At the same time, data based on individual records do allow for distinctions between effects across personal characteristics, such as levels of education, and the extent of mismatch between characteristics of the spouses.

In this project we use two measures of domestic violence: medical diagnoses and crime reports. The medical data comes from from hospital records in Sweden and can be merged with administrative data that contain demographic data of the victims and perpetrators. The second data source is a unique Danish crime register in conjunction to registers that allow us to identify whether the perpetrator and victim share a household.

The empirical analysis will use a dynamic panel data model, where the unit of observation is a neighborhood or municipality or county, and the time frequency is a month or a quarter. The outcome variable is the occurrence of domestic violence, and the main explanatory variable is an indicator of the business cycle (such as the unemployment rate) in the spatial unit. Of course, it may be that the business cycle only affects domestic violence with a time lag, or that other features of the cycle than its level are important. This can be accommodated into the empirical model. Similarly, we can stratify by personal characteristics.

2 A Structural Model

In order to understand the mechanism by which business cycle fluctuations affect domestic violence, we build a theoretical model of family violence. As in Bowlus and Seitz (2006) husbands may engage in abuse for two different reasons: they derive utility from it and they may influence their wife's behavior. The most direct effect may be that job loss leads to negative emotions which makes a breakdown of control more likely.[1] In the model such an effect would be captured by an increase in the marginal utility from violence in response to a job loss. Secondly, if bargaining power in marriage is a function of the relative wages, then ceteris paribus a husband's job loss leads to lower male bargaining power. In response, a husband may engage in more abuse to regain bargaining power. Alternatively, the job loss will make him more financially dependent on his wife, which should result in lower violence to prevent her from leaving.[2] In terms of indirect effects, the fear of potential future job or income losses may directly affect a man's marginal utility from violence. The stigma of violence may also play a role. If the social stigma of engaging in violence decreases in the fraction of men engaging in it, then this effect will lead to an amplification of violence over the cycle.

We use data in conjunction with the theoretical model to develop a quantitative model. This allows us to quantify the domestic violence costs imposed by the business cycle. The structural model is also used to analyze the redistributional consequences. An increase in domestic violence due to a recession may well lead to a redistribution from wives to husbands if he uses force to compensate for his frustration. The structural

[1] This effect is empirically documented in Card and Dahl (2011) in the context of football games.

[2] Aizer (2010) demonstrates this effect empirically by exploiting exogenous changes in demand for labor in female-dominated industries. She finds that decreases in the gender wage gap do indeed reduce violence against women.

model allows us to quantify the size of such effects. Further, the calibrated model allows us to quantify the importance of each of the channels. Finally, we use the quantitative model for policy analysis. For example, an increase in the public provision of women shelters may backfire, if this outside option decreases his bargaining power, which he compensates with additional abuse. Potentially gender-specific unemployment benefits might be a more promising policy instrument.

3 Related Literature

A few papers analyze how job loss (or in some cases other socioeconomic stress) affects child abuse and/or domestic violence: see e.g. Tauchen and Witte (1995); Steinberg, Catalano, and Dooley (1981); Garbarino (1976); Calderón, Gàfaro, and Ibànez (2010). In fact, much of the literature on the determinants of domestic violence does not use comprehensive or representative samples, or it does not control for selection on unobservables at the individual level. Some only focus on child abuse, and some only use job losses to capture contemporaneous economic conditions. Several papers analyze how a particular policy change affects domestic violence (Stevenson and Wolfers (2006) and Brassiolo (2012) analyze a change in divorce law while Tauchen and Witte (1995) analyze a police experiment; see also Aizer and Dal Bo (2007)). A number of papers analyze the relationship between crime in general and the business cycle, notably Arvanites and Defina (2006); Pyle and Deadman (1994); Yamada, Yamada, and Kang (1991). Fallesen, Geerdsen, Imai, and Tranaes (2010) analyze how workfare programs in Denmark affect crime rates.

References

AIZER, A. (2010): "The gender wage gap and domestic violence," *American Economic Review*, 100(4), pp. 1847–1859.

AIZER, A., AND P. DAL BO (2007): "Love, hate and murder: Commitment devices in violent relationships," Discussion Paper 13492, National Bureau of Economic Research, Inc.

ARVANITES, T. M., AND R. H. DEFINA (2006): "Business cycles and street crime," *Criminology*, 44(1), pp. 139–164.

BOWLUS, A. J., AND S. SEITZ (2006): "Domestic violence, employment, and divorce," *International Economic Review*, 47(4), pp. 1113–1149.

BRASSIOLO, P. (2012): "Domestic Violence and Divorce Law: When Divorce Threats Become Credible," unpublished manuscript, Universitat Pompeu Fabra.

CALDERÓN, V., M. GÀFARO, AND A. M. IBÀNEZ (2010): "Forced migration, female labor force participation, and intra-household bargaining: Does conflict empower women?," Unpublished manuscript, Universidad de los Andes.

CARD, D., AND G. DAHL (2011): "Family Violence and Football: The Effect of Unexpected Emotional Cues on Violent Behavior," *The Quarterly Journal of Economics*, 126(1), 103–143.

FALLESEN, P., L. P. GEERDSEN, S. IMAI, AND T. TRANAES (2010): "The effect of workfare policy on crime," Working Papers 1236, Queen's University, Department of Economics.

GARBARINO, J. (1976): "A preliminary study of some ecological correlates of child abuse: The impact of socioeconomic stress on mothers," *Child Development*, 47(1), pp. 178–185.

PYLE, D. J., AND D. F. DEADMAN (1994): "Crime and the Business Cycle in post-war Britain," *British Journal of Criminology*, 34(3), pp. 339–357.

STEINBERG, L. D., R. CATALANO, AND D. DOOLEY (1981): "Economic antecedents of child abuse and neglect," *Child Development*, 52(3), pp. 975–985.

STEVENSON, B., AND J. WOLFERS (2006): "Bargaining in the shadow of the law: Divorce laws and family distress," *The Quarterly Journal of Economics*, 121(1), pp. 267–288.

TAUCHEN, H., AND D. A. WITTE (1995): "The dynamics of domestic violence," *The American Economic Review*, 85, pp. 414–418.

YAMADA, T., T. YAMADA, AND J. M. KANG (1991): "Crime rates versus labor market conditions; theory and Ttme-series evidence," Working Paper 3801, National Bureau of Economic Research.