

## **THATCHERISM, CRIME AND THE LEGACY OF THE SOCIAL AND ECONOMIC 'STORMS' OF THE 1980s**

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*Abstract: Using insights from the classical sociology of deviance and social structure (notably Durkheim and Merton) we explore the enduring impact of the social and economic changes which started in the UK in the early 1980s. In the two subsequent decades the UK went through a period of radical economic restructuring, leading to lasting social change. We seek to gauge the effect of these combined social and economic processes, which we label social and economic 'storms', at the national level. In so doing we assess, and ultimately defend, the heuristic utility of this conceptualisation, considering the extent to which such social and economic storms (individually and collectively) weakened bonds between individuals, within and between families, and across communities. We use proxy measures of economic and social changes in combination with recorded crime statistics to explore the degree to which such processes might be associated with victimisation rates. We find that crime was related to these macro-level 'storms', although ultimately they were driven by economic variables. Our analyses show how political decision making can shape long-term trends in crime rates.*

**Keywords:** Thatcherism; crime trends; the New Right; anomie theory; politics and crime

Few would disagree that Margaret Thatcher's period as Prime Minister (from May 1979 to November 1990) was one of considerable social and economic turbulence for the UK; more contentious is the enduring character of the social and economic change to which this period gave rise (Farrall and Hay 2014). The 'Thatcher governments' as they are commonly referred to, sought, in their own terms, to 'roll back' the frontiers of the post-war welfare state, reducing its range, reach and influence within, and control over, large sections of British social and economic life. Above all, 1980s' New Right thinking, of which 'Thatcherism' was one expression, emphasised free markets, restrained government spending and endorsed deep tax cuts, transforming modes of local and national governance. Certainly deindustrialisation, which can be traced back to the 1960s, accelerated during this period, vast parts of the British economy were comprehensively restructured (manufacturing declined by about a half, putting many out of work, decimating whole communities and leading to a rise in economic inequality, Dorling (2014a), Walker (2014)) while new sectors of the economy (especially banking, insurance, and the service sector) became core to domestic economic output (Crafts 1991; Glennerster 1994). In addition, council houses were sold off, local governments' control of schooling and other public services was challenged, and trade union powers were significantly contracted (Walker and Walker 1997). Rules relating to who could claim (and what could be claimed) from the social security system were also modified (Walker 1993). However, as this process of State retrenchment advanced, it generated its own contradictions and conflicts that later required containment and redirection.

During the same time period, officially-recorded crime rates, and self-reported rates of victimisation increased substantially (Jennings, Farrall and Bevan 2012; Morgan 2014), mirroring rises in crime rates in other democracies (Rosenfeld and Messner 2009). Studies have shown that, as levels of unemployment and inequality increased, so, too, did rates of property crime (Pyle and Deadman 1994; Hale 1998; Jennings, Farrall and Bevan 2012; Farrall and Jennings 2012; Morgan 2014). While Thatcher and some of her key ministers spoke out about 'law and order',<sup>1</sup> the government did not pass the draconian acts one might have expected given her electoral rhetoric and that of successive British governments since 1979, despite rising crime rates (Farrall, Burke and Hay 2016a).

While social science research has gone some way to broadening our understanding of the long-term impacts of Thatcherite public policy, other crucial questions remain unanswered. What happened to those parts of England, Wales and Scotland in which deindustrialisation had been

most acute? Were rises in crime higher in certain areas of Britain than others? Was fear of crime linked to the incidence of crime? We know relatively little beyond the national picture in terms of the economy-crime link. But what is the picture when one explores violent crime or other forms of social harm (such as non-accidental deaths and alcoholism)? Notably, scholars from related branches of social policy have also begun to conduct allied longitudinal investigations in housing policy (Dorling 2014b; Farrall *et al.* 2016b), opiate drug-use (Morgan 2014), education policy (Berridge *et al.* 2001) and social attitudes (Duffy *et al.* 2013; Natcen 2014), highlighting the need to build an integrated model of analysis. Moreover, research has demonstrated that how individuals relate to their environment and community can impact their feelings about crime (Farrall, Jackson and Gray 2009) as well as the rate of reporting crimes (Goudriaan, Wiiterbrood and Nieuwbeerta 2006) and perception of neighbourhood disorder (Sampson and Raudenbush 2004). Put simply, the analyses undertaken so far provide us with few answers to these key questions.

In this article we assess the extent to which dramatic economic and social change – and the shocks which it produced in terms of socio-economic processes – was associated with crime at the collective level. Our intellectual framework is derived from thinking developed by Emile Durkheim and Robert Merton, and subsequently revised by Robert Agnew, Steven Messner and Rick Rosenfeld. Our argument is that the new right economic policies of the period had tangible effects on the livelihood and relative prosperity of individuals and families in the UK (creating an ‘economic storm’) which, in turn, produced a resulting ‘social storm’, that is an elevated degree of social disruption. Whilst ‘storms’ are often considered to be short term, we nevertheless term these effects ‘storms’ because despite their sometimes long-term causes, they were felt immediately (during the 1980s) and had consequences which played out over time. The effects of these storms were like the radiating ripples which follow a stone being dropped into a pond. Our project has found that some of the effects take a very long time to emerge, being produced through processes of political socialisation, for instance (Grasso *et al.* 2017). As such, we treat the concept of social and economic ‘storms’ as a heuristic device; a useful way of approaching and modelling the effects of politically-initiated social and economic change which can be isolated in time, but which have consequences which emerge over many years. We explore the heuristic value of the idea of such storms by examining the degree to which these were associated with increases in the rate of property crime.<sup>2</sup> This builds on previous work on

the economy-crime link, but seeks to better understand the set of social and economic changes that were associated with rising crime rates. These insights may also shed light on why the interrelationship between economy and crime has become less strong since the financial crisis which started in 2007/08.

Similar research which has connected Thatcherite policies to adverse social and economic outcomes has started to be undertaken in other branches of the social and medical sciences. While distinct from our focus on crime rates, studies of changes in health and well-being have pursued similar questions with regards to the effect of government policies on mortality (Scott-Samuel *et al.* 2014; Shipton, Whyte and Walsh 2013). For example, Scott-Samuel *et al.* (2014) find that ‘Thatcher’s policies were associated with substantial increases in socioeconomic and health inequalities’ (p.53), before going on to demonstrate that Thatcherite social and economic policies were associated with the ‘unnecessary and unjust death of many British citizens together with a substantial and continuing burden of suffering and loss of well-being’ (p.66). Shipton, Whyte and Walsh (2013) use officially-recorded data on the cause of death for three UK cities to show that the cohort of people born in the 1940s and 1950s (and who were in their 30s and 40s during the 1980s) had the highest levels of mortality in Glasgow (one of the regions hardest hit by economic policies during the 1980s), which changed from cardiovascular and heart disease to deaths associated with alcohol, drugs, suicide, and violence. These cohorts (in their 30s and 40s) may have been amongst those who felt the changes most acutely; younger generations may not have grasped the radical nature of the social and economic changes that took place, while older generations may have escaped their sharp edges via reliance on retirement incomes and the attrition of financial burdens that an older age brings. In a related study, Jackson and Stafford (2009) found a strong statistical link between worry about crime and mental ill-health and physical functioning, suggesting that worry about crime is not only implicated in one’s social and political anxieties (Farrall, Jackson and Gray 2009), but also fills a discernible role in cycles of decreased health. That crime and public fear of crime were at their height during Conservative rule<sup>3</sup> stresses the need to acknowledge the manifold consequences of neoliberalism on crime and quality of life.

### **Durkheimian Anomie Theory**

It was the French sociologist, Emile Durkheim (1893/1960, 1897/1951), writing almost a century

before the period in which we are interested, who coined the term ‘anomie’ to refer to the weakening of the social norms of society and the sense of ‘dislocation’ which this engendered in individual members of society. It was, of course, another sociologist (Merton 1938) who interpreted this thinking in such a way as to be operationalisable by empirically-minded criminologists. And whilst initially Merton’s essay on the topic was little used, interest in his thinking grew dramatically in the 1950s and 1960s (Messner and Rosenfeld 2000, p.10). Merton adapted Durkheim’s initial observations, drawing on Marxist theories on the causes of crime, and his own observations of US society, economy and recorded crime rates. Merton developed anomie as a socially-based set of discontents which routinely generated crime as a by-product of everyday activities which promised everyone great rewards but systematically denied the chances of success to a great many members of society (Rock 2007, p.45). Like Messner and Rosenfeld (2000) before us, we, too, ‘accept Merton’s underlying premise that motivations for crime do not result simply from the flaws, failures or free choice of individuals’ (p.10). Any account of the causes of crime must attend to the cultural determinants and structural associates of the environments (social, economic, and cultural) in which individuals find themselves and accordingly to which they need to adapt their behaviours and responses. In short, structural-level processes block legal opportunities for advancement, so (some) individuals turn to illegal activities to achieve success/status, or express their frustration at being blocked through criminal behaviour. Robert Agnew (1985) revised this thinking slightly, arguing that feelings of anomie could also be provoked by perceptions that one was ‘trapped’ in aversive situations. Either way, the basic argument is that structural-level variables prevent individuals from achieving what they desire, and so they turn to illegal activities to achieve these or to express their frustrations. In this perspective, national and regional level crime rates are not simply the ‘aggregating up’ of individual choices and actions, but rather are the outcomes of the social forces which shape and mediate individual actions and their context. To this end, governments can ‘produce’ variations in crime rates via their influencing of processes which impact on levels of economic hardship and social welfare. Accordingly, abrupt and deep changes in such processes (especially if they are associated with increases in hardship) can help to structure offending at the individual level. Messner and Rosenfeld (2000) characterise Mertonian thinking by suggesting that ‘social norms tend to lose their regulatory force’ (p.11) – a point with which we would concur. However, we additionally argue that not only do such social norms lose their power, they are malleable

themselves and it is changes in the shape, nature and power of institutions such as the family which mean that their regulatory powers are weakened.<sup>4</sup> Merton argued that the pressure towards anomie was socially structured, becoming greater amongst the lower social strata (since their chances for advancement are weaker) (Wilkinson 2005). We argue, with regards to the UK's experience during the 1980s, that the lower social strata were most affected by the social and economic changes unleashed by Thatcherite policies. However, and as Rock (2007, p.47) reminds us, Durkheim saw such 'social stress' as being (relatively) short-lived; the birthing pains of a new social and economic order. Regardless of precisely how 'short-lived' such social stress is (is ten years a long or a short period of time, for example?), we have been at pains to chart and document the long-term implications of such periods of rapid change (see Farrall, Burke and Hay 2016a; Farrall *et al.* 2016b; Jennings *et al.*, 2016; Hay and Farrall 2011). From this perspective, theories of anomie offer a potential avenue to stretch our understanding of how dramatic social change and shifts in the patterns and pace of crime (such as that experienced during and after the Thatcherite era) impact upon society.

### **Research Questions**

Herein we explore the extent to which the dramatic social and economic changes which the UK experienced during the 1980s were part of the causal processes which led to the rise in crime witnessed in the later part of the 1980s and early 1990s. Crime had been rising steadily from the 1960s throughout the 1970s and into the first half of the 1980s. In 1979 there were 2.5m recorded crimes, which increased to 4.5m by 1990 and peaked in the early to mid-1990s at just under 6m (Britton *et al.* 2012, p.164). British Crime Survey data show a similar trend; there were around 11m offences reported in 1981, rising to around 20m in 1995. As we shall show below, at the same time as these increases in the crime rate, the UK experienced increases in a number of key social and economic conditions which have been linked to crime (such as unemployment, economic inequality, drug use, and child poverty). To what extent, if at all, were the changes in the crime rate related to changes in these social and economic conditions?

### **Data and Methods**

Sociologists and criminologists have long been wary of the inferences that can be drawn from officially-recorded crime rates (indeed Merton's reliance on these was one of the criticisms



data are available (specifically, suicide rates which are an important macro-level indicator of societal distress, Gilligan (2013), are not available from the Office for National Statistics as a continuous series prior to 1981). For the purposes of analysis, this starting point means that our conclusions are limited to understanding the relationship between social and economic change and rates of offending over the time period in question, rather than directly testing the impact of individual (or collective) policy interventions on social and economic distress.

Our measure of the social storm is constructed using a range of indicators of social distress, harm, dislocation, and the weakening of norms and social ties. The selection of appropriate indicators is normatively problematic insofar as certain forms of social disruption and change (for example, divorce) correspond both to forms of social breakdown and emancipation (that is, women's social and legal rights). As a result, our principal criterion of selection is that indicators are linked either to distinct social harms or upheavals in the aggregate – even if they also reflect progress in rights of the individual. Further, the method that is used here simply estimates the degree to which defined variables move together over time, and thus the question of what constitutes our measure of *social storm* is mainly an empirical one that can be resolved through modelling. Nevertheless, it is important to set out some expectations concerning why these indicators of social change and disruption might be both a consequence of economic shocks and restructuring and impact on deviance.

Studies of deviance and criminal behaviour have long emphasised a range of antecedents, including individual characteristics, cognitions and experiences, as well as the powerful roles of youth and political culture, poverty and the environment (Maguire, Morgan and Reiner 2012). More recent analysis has indicated that it is highly likely that a combination of factors influence patterns of crime (Wikström and Butterworth 2006) via interaction effects, multilevel or hierarchical structures and complex recursive relationships (Nagin and Tremblay 1999; Smith and McVie 2003; Nagin 2005; Smith and Ecob 2007; McAra and McVie 2010a, 2010b, 2012). For example, researchers have developed a general theory of moral action – Situational Action Theory – which examines how personal and environmental characteristics interact to influence acts of crime (Wikström 2004; Wikström *et al.* 2012). While our analysis does not operate at the level of the individual, we aim to incorporate a set of indices of the social storm that also represent an integrated analytical framework. Our initial set of indices comprise of the following:

- Suicide rate: the age-standardised rate of suicides per 100,000 of population; where



suicide is defined as ‘deaths given an underlying cause of intentional self-harm or injury/poisoning of undetermined intent’ (Office for National Statistics 2016b). While suicide itself is a measure of societal distress and malaise, and tracks rises in the rate of unemployment (Nordt *et al.* 2015), it can also have secondary effects on the well-being and financial circumstances of surviving family members who may be forced into reliance on illicit earnings in the absence or loss of income following the death of a family member. Studies of the survivors of suicides has indicated that many family members often report feelings of guilt, shame, stigmatisation, loss of social support and self-destructive behaviour, some of which may result in criminal behaviours (Calhoun, Selby and Selby 1982).

- Death due to drug misuse: the total number of deaths due to drug-poisoning involving illegal opiates (that is, heroin, morphine, methadone); which measures the level of drug abuse and misuse in society, specifically relating to ‘hard’ or ‘Class A’ drugs. Drug addiction has been linked to regional variation in rates of property crime (Morgan 2014) and other acquisitive crimes (Parker and Newcombe 1987) while rates of drug use themselves indicate rates of lawbreaking and permissiveness.
- Divorce rate: the rate of divorce per 1,000 of married population; which measures changing social norms in relation to marriage as well as relationship breakdowns that in some cases impact on children. This might in some cases be directly linked to economic conditions via pressure on relationships via unemployment, relocation for the purposes of employment or increased stresses brought on by financial hardship. Similarly, divorce may weaken parental bonds (Amato and Sobolewski 2001), known to be a protective factor against involvement in crime (Hirschi 1969; Sampson and Laub 1993). Children of divorced parents are more likely to drop out of school (Rodgers and Rose 2001), itself associated with offending (Farrington 1990, 1992).
- Teen pregnancy rate: the number of conceptions per 1,000 women aged 15 to 17 years. The rate of teen pregnancies provides a potential measure of a breakdown in traditional family structures, and discipline, which downstream impacts on deviance. These pregnancies are the result of early sexual encounters, which have been associated with school truancy, teenage drinking, drug use, and juvenile delinquency



factor rose throughout the 1980s, peaking in around 1994, and declined before rising briefly around 2002/03, and falling thereafter. This is largely consistent with an underlying dynamic of social change, as put forward in accounts of considerable social dislocation and turbulence during the early 1980s: rising child poverty, and growing rates of divorce and drug mortality (Farrall and Hay 2014).

>>>>>>>>>> **FIGURE 2 ABOUT HERE** <<<<<<<<<<<<

As we noted earlier, the idea of an economic storm can be equated with the confluence of various economic shocks and/or trends that impact on national (and regional) wealth, productivity and employment, potentially exacerbated by self-reinforcing dynamics. Some economic mechanisms may, on the other hand, be countervailing, providing stabilisers against downturns or instability (for example, government transfer payments for unemployment benefits). Most crucially this second round of modelling intends to capture the level of economic stress and disruption relative to other time periods, taking key indicators as a benchmark. Our *economic storm* index is estimated using six variables measured annually from 1971 until 2011.

- Unemployment rate: the percentage of the male UK population, aged 16 years and over, that is unemployed, seasonally adjusted; where this measures the proportion of men out of work, indicating under-employment of individuals and more broadly the prevalence of financial hardship facing particular sections of society. Changes in the rate of unemployment among men are particularly relevant to this study given the impact of economic restructuring on the traditional male breadwinner model in certain communities under deindustrialisation and the considered link between unemployment, crime and imprisonment (Box 1977; Carmichel and Ward 2001; Raphael and Winter-Ebner 2001).<sup>9</sup>
- Income inequality: the Gini coefficient measures the relative dispersion of income within society after housing costs (Institute for Fiscal Studies 2014). Essentially it captures the distribution of wealth in society and relative differences in income between groups, such that higher values indicate higher inequality (between 0 and 1). Notably, various longitudinal and meta-analytic studies have identified significant (albeit complex) positive associations between forms of crime and economic

inequality (Hsieh and Pugh 1982; Kelly 2000; Leigh, Jencks and Smeeding 2009). Associated closely with income inequality, we also measure:

- i) Average weekly earnings: the annual growth rate of the historic average weekly earnings series; and
  - ii) Income-related benefits expenditure: expenditure in £ million, real terms, on income support and lone parent income support; where this indicates the level of reliance on income support for low-income families; and
  - iii) Poverty: the fraction of the working-age population living (after housing costs) on 40% of contemporary median income or less (Institute for Fiscal Studies 2014); where this measures the degree to which the incomes of poorer households keep up with middle-income households.
- Housing repossession rate: the percentage of properties taken into repossession as a percentage of all loans. Such a dramatic shift in a households' tenure status may be associated with a 'landscape of precariousness' (Nettleton and Burrows 2001, p.253) in relation to their employment, access to welfare, social and familial relationships (Nettleton 2006) and homelessness or greater reliance on suboptimal accommodation (Fitzpatrick *et al.* 2012).

We again use dynamic factor analysis to estimate the underlying tendency (single factor) in the identified indices. The results are reported in [Table 2](#).<sup>10</sup> These reveal a high degree of persistence in the lag of the unobserved factor (0.993,  $p < 0.001$ ), which is a significant predictor of each of the observed variables. Positive coefficients for the standardised rates of male unemployment, income inequality, housing repossessions, benefits expenditure, and relative poverty, reveal that worsening economic conditions tend to be observed in common across a range of indices. The negative coefficient for average earnings suggests that growth of incomes moves consistently in the opposite direction.

The availability of these various economic series for the earlier time period allows us to observe the trend in the estimated dynamic factor prior to the change in the economic policy paradigm of the British government in 1979 (see Hall 1993). This is plotted in [Figure 3](#). Following relative stability throughout the 1970s, the economic storm index exhibits a steady

increase from 1981 onwards (as unemployment, inequality, benefits spending, housing repossessions, and poverty, all rise in tandem), temporarily falling during the late 1980s but only seeing a sustained decline after 1994/95. Estimation of the unobserved factor thus is consistent with many characterisations of the economic turbulence of this period (Dorling 2014a; Walker 2014).

>>>>>>>>>>TABLE 2 ABOUT HERE<<<<<<<<

>>>>>>>>>>FIGURE 3 ABOUT HERE<<<<<<<<<<<<<<<<<

### **Testing the Impact of Social and Economic Storms on Property Crime**

Estimation of these unobserved factors enables us to describe the dominant underlying trajectories of social and economic change over an extended time period.<sup>11</sup> This does not resolve the question, however, of the nature of the relationship between these socio-economic processes, or their consequences for crime. Inspection of plots of standardised values of the social and economic storm indices against recorded property crime and self-reported victimisation suggests a substantial degree of common variation across these series. This is consistent with our theoretical expectations, as well as a substantial body of past research. Proper testing of this claim requires time series modelling, to account for the inherent dynamics of each of the series, however. Because of gaps in the self-reported victimisation data from the British Crime Survey (which was not run in various years between 1983 and 2001), we use recorded property crime rates for the formal test of our model.

We start by considering the relationship between the economic and social storm indices, using a time series regression model in first differences. This considers the annual change in the social storm measure ( $\Delta\text{SocialStorm}_t$ ) as a function of change in the economic change measure during the same time period ( $\Delta\text{EconomicStorm}_t$ ) and can be expressed in the form:

$$\Delta\text{SocialStorm}_t = \alpha_0 + \beta_1\Delta\text{EconomicStorm}_t + \mu_t$$

The model is fitted using the Prais-Winsten method (Prais and Winsten 1954) to control for serial autocorrelation of the residuals ( $\mu_t$ ), estimated as the first-order autoregressive process:  $\mu_t$



could be because the social storm did not have a material effect on crime rates during this period. When property crime is modelled just as a function of social storm, the effect is not significant. This suggests that the social storm had neither a direct or mediating role in the processes observed here. Another explanation is that the social storm index and property crime are simultaneous outcomes of underlying changes in the economic system (modelled here in the form of the economic storm). Another possibility is that the effects of social disruption cancel out in the aggregate, and do not give rise to clear patterns. This would all suggest that property crime is reducible to economic variables, and that the association between social variables and property crime is spurious. In which case, the theoretical model would need to be revised (see *Figure 4*). From our findings, this seems most likely in the absence of observed direct effects of the social storm on the recorded crime rate.

>>>>>TABLE 4 ABOUT HERE<<<<<<<<<

>>>>>FIGURE 4 ABOUT HERE<<<<<<<<<

### Conclusion

We have examined the impact of what might be termed ‘Thatcherite’ social and economic policies and their consequences for crime rates in England and Wales over the period between 1971 and 2011. Our initial model proposed that changes in the management of the economy would result in economic turbulence which would create both social turbulence and an increase in crime. Certainly, the analysis herein indicates that *economic* disturbance was a reliable predictor of rises in property crime in the 1980s and 1990s. We also hypothesised that the social turbulence produced during this time would also contribute to the rising crime rate. This aspect of the model was not as we had hypothesised, and the social storm did not have the significant impact on crime that the economic storm had. However, our analysis broadly supports our initial thinking that the changes to the operation of the economy drove both social changes and change in the rates of crime in England and Wales. Specifically, rapid-onset neoliberal economic policy in Britain in the late part of the 20th Century contributed towards a surge in property crime.

In this respect, crime ought to be seen alongside other dramatic social developments, such as rises in the rates of suicide, divorce, drug overdoses, teen pregnancy and child poverty. Whilst processes such as divorce may represent greater levels of female emancipation and for the

individuals concerned may be positive outcomes, they are also associated with other processes (both for the individuals directly concerned, or for their children) with less positive outcomes. This is not to repeat, of course, the New Right's claim during the 1980s that 'permissiveness' was the direct cause of crime (claims made by the likes of Victoria Gillick and Mary Whitehouse, see David (1986, pp.158–62)), but rather to point to the fact that changes in the economic arrangement in England and Wales was the driver of *both* the increases in the crime rate witnessed in the 1980s and increases in the social changes which so concerned New Right thinkers of the time.

The economic restructuring of the 1980s was both profound (that is to say, felt dramatically by many sections of the economy, some of which shrunk considerably and some of which grew enormously) and enduring in two respects. The processes of change themselves took time to be completed, and when completed then endured, becoming the 'new normal'. Even so, the speed with which the restructuring took place would have felt, for many people within the communities affected, quite rapid. Jobs (and futures) which appeared certain for many would have started to appear less concrete and then to disappear within a decade or less. Unlike the profound changes which followed the end of the Second World War, during which the welfare state was slowly developed over a period of 30 or so years, the changes of the 1980s took hold in a relatively short period of time. What lessons does our modelling have for understanding when such storms arise and the future more generally? The storms we have described were the result of political decision making which sought to both undo much of what had gone before and to create a rather vaguely described future (of homeowners, shareowners, and free markets). Predicting the future is never a wise thing to do and crime patterns are exceptionally difficult to estimate; however, in the light of the vote for the UK to leave the EU, it is possible to see how the dramatic economic consequences of this decision may result in increases in both social harms and increases in property crime – albeit in new forms, such as online and bank card fraud.<sup>13</sup>

Significantly, the research herein emphasises the value of economic or structural perspectives in explaining certain types of crime, even if they had been otherwise eclipsed by recent intellectual or cultural 'turns' (Hall 2011). We have presented empirical evidence of the importance of economic factors in property crime and in so doing, have demonstrated the theoretical validity of economic theories of crime, as described by Durkheim and Merton. Indeed, theories of crime which incorporate the role of the economy continue to have direct relevance for





which added over a quarter of a million violence offences after 1998/99 (see Maguire (2012, p.216) on the former and Maguire (2007, p.259) on the latter), though trends in the rate of property crime and violent crime are, nevertheless, highly correlated.

<sup>3</sup> While measuring long-term crime trends is beset with technical pitfalls most commentators agree that crime increased dramatically during the 1980s, peaking between 1992 and 1995 and declined thereafter (Newburn 2007). Likewise, fear of crime as measured by the British Crime Survey reached its height in the mid-1990s (Farrall, Jackson and Gray 2009).

<sup>4</sup> Similarly, Garland (2001) identified that there was a dramatic increase in consumer products from the 1980s, coupled with a reduction in situational and informal social controls (such as the family and community bonds) that gave rise to increased acquisitive offending.

<sup>5</sup> In 2012, the British Crime Survey was renamed the Crime Survey for England and Wales.

<sup>6</sup> The social storm index has a mean of 0.136 and a standard deviation of 1.471 (see Table A1 in the Appendix).

<sup>7</sup> That the suicide and teen pregnancy rates did not load onto the estimated factor raises a common question for statistical analysis: should one present a theoretically specified model and retain variables which are not significant, or does one present a 'reduced form' model dropping insignificant variables? As it was, the dynamic factor model includes variance parameters for each of the variables, and these were significant for both. This means that the measures did contribute to the model, even if the independent variables themselves are not statistically significant. Hence we opted to retain these variables since there were good theoretical and statistical reasons for doing so.

<sup>8</sup> Tests of variance parameters against zero ( $\sigma^2_e$ ) indicate that for each of the suicide rate, child poverty rate, teen pregnancy rate, and opiate-related deaths due to drug poisoning this is significantly greater than or equal to zero. This is not the case for the divorce rate.

<sup>9</sup> If the dynamic factor analysis instead uses the overall unemployment rate, this estimation results in an inferior goodness-of-fit (that is, a higher log likelihood value), and an insignificant prediction of the unemployment rate by the unobserved factor.

<sup>10</sup> The economic storm index had a mean of 0.000 and a standard deviation of 1.013 (see Table A1 in the Appendix).

<sup>11</sup> The correlation between the economic and social storms was 0.77 ( $p = 0.000$ ).

<sup>12</sup> It is possible to further assess the temporal relationships between social and economic storms using tests of 'Granger causation' (Granger 1969). These determine whether past values of a variable  $x$  improve prediction of another variable  $y$ , relative to prediction of  $y$  from past values of itself alone. This is not a test of causation in the strictest sense, but evidence of the predictive content and the temporal ordering of one measure in relation to another (Granger 1988). We test for Granger causation between social and economic storms (in first differences) using a vector-autoregression framework, with the lag order (of two years) selected according to the Akaike information criterion (AIC). The results of the Granger causation tests are reported in Table A2 in the Appendix. The estimated  $\chi^2$  statistic considers whether economic

storm Granger causes social storm or whether social storm Granger causes economic storm, such that where the  $\chi^2$  test statistic is significant there is Granger causation between the variables. This indicates that economic storm tends to lead to social storms (where the  $\chi^2$  test statistic is equal to 7.214 and significant at the 95% confidence level). In contrast, there is no support for Granger causation in the opposite direction (where the  $\chi^2$  test statistic is equal to 0.761 and is not significant at the 95% confidence level). We thus have confidence that the causal direction runs from economic shocks and dislocation to social disturbance rather than *vice versa*.

<sup>13</sup> The nature of property crime is changing, and is currently difficult to analyse. Offences which are committed via the Internet and card and bank account fraud are not currently reliably captured by recorded crime statistics or survey-based studies of victimisation or worry about crime. To address the increasing prevalence of these crimes the Crime Survey for England and Wales added new questions relating to fraud and computer misuse in half of the survey sample from October 2015. These new and experimental statistics found that ‘adults aged 16 and over experienced an estimated 5.8 million fraud and computer misuse incidents in the 12 months prior to interview; 3.8 million of these were fraud incidents and 2 million were computer misuse incidents’ (Office for National Statistics 2016a, p.7).

<sup>14</sup> While this research has addressed property crime in England and Wales, Currie (1997) sought to explain how the proliferation of free market values in America has contributed to violent crime.

<sup>15</sup> We would like to acknowledge the support of the Economic and Social Research Council (as award number ES/K006398/1) in enabling this research to have been conducted.

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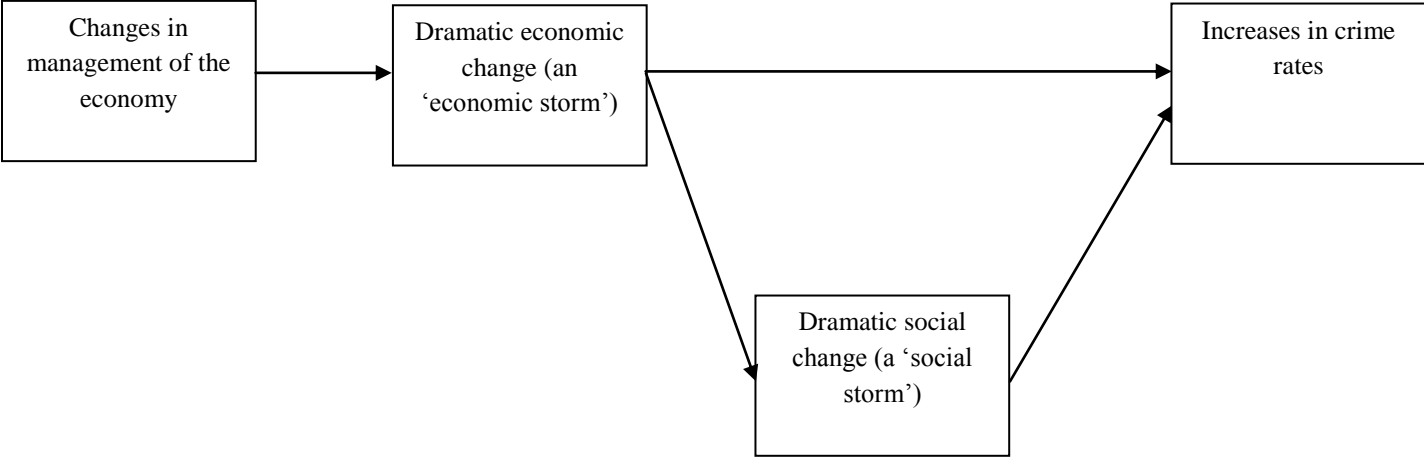


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**FIGURE 1**  
*Theoretical Framework*

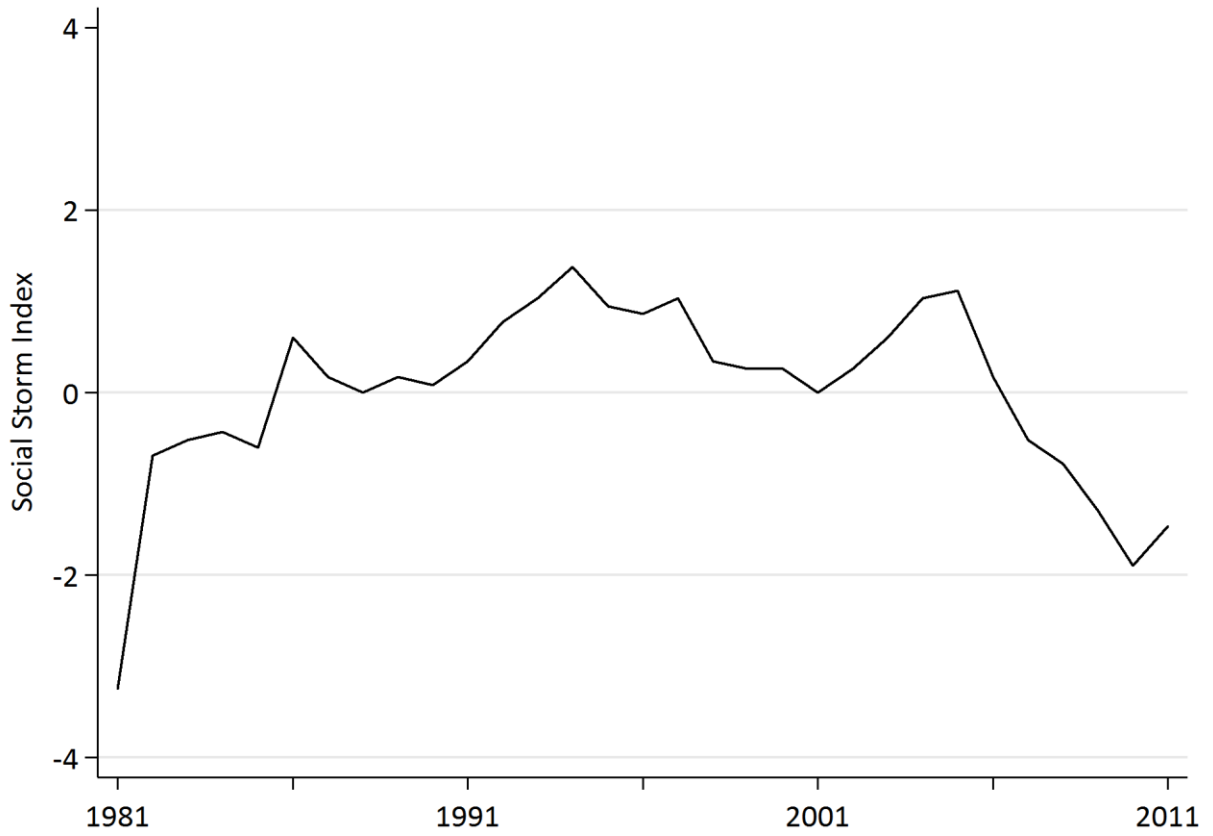


**TABLE 1**  
*Dynamic Latent Factor Analysis of Social Indicators*

	Social storm
$F_{t-1}$	<b>0.986</b> <b>(0.015)***</b>
$f(\text{Suicide})$	0.013 (0.022)
$f(\text{Child poverty})$	<b>0.082</b> <b>(0.020)***</b>
$f(\text{Mortality-opiates})$	<b>0.046</b> <b>(0.023)*</b>
$f(\text{Divorce})$	<b>0.108</b> <b>(0.014)***</b>
$f(\text{Teen Pregnancy})$	0.012 (0.013)
$\sigma^2_{\varepsilon}$ Suicide	<b>0.955</b> <b>(0.243)***</b>
$\sigma^2_{\varepsilon}$ Child Poverty	<b>0.546</b> <b>(0.139)***</b>
$\sigma^2_{\varepsilon}$ Mortality-opiates	<b>0.937</b> <b>(0.238)***</b>
$\sigma^2_{\varepsilon}$ Divorce	0.000 (0.000)
$\sigma^2_{\varepsilon}$ Teen Pregnancy	<b>0.299</b> <b>(0.076)***</b>
N	31
Log Likelihood	-123.04
Start	1981
End	2011

(Notes: \* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .)

**FIGURE 2**  
*Social Storm Index 1981–2011*

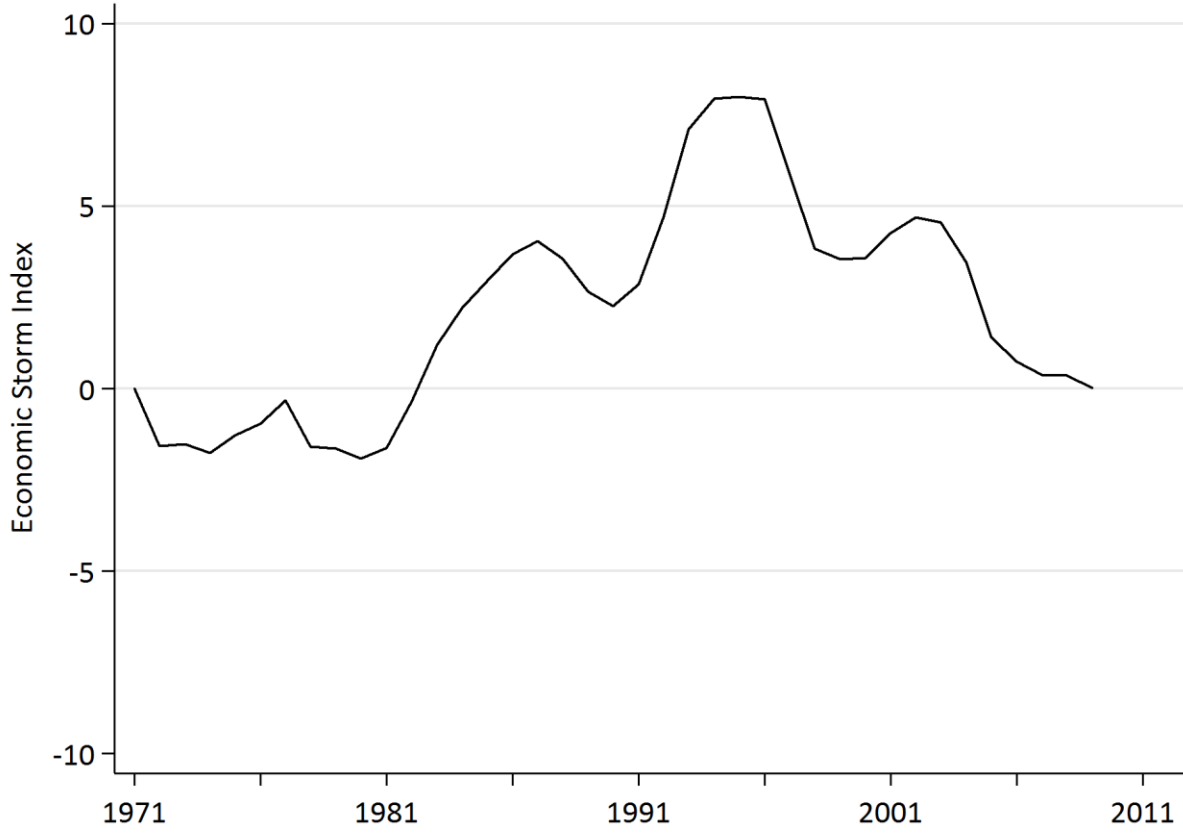


**TABLE 2**  
*Dynamic Factor Analysis of Economic Variables*

	Economic storm
$F_{t-1}$	0.950 (0.036)***
$f(\text{Unemployment-male})$	<b>0.138</b> <b>(0.040)***</b>
$f(\text{Inequality})$	<b>0.153</b> <b>(0.037)***</b>
$f(\text{Repossessions})$	<b>0.158</b> <b>(0.040)***</b>
$f(\text{Benefits})$	<b>0.269</b> <b>(0.031)***</b>
$f(\text{Earnings})$	<b>-0.133</b> <b>(0.042)**</b>
$f(\text{Poverty})$	<b>0.013</b> <b>(0.002)***</b>
$\sigma^2_\varepsilon(\text{Unemployment-male})$	0.788 (0.178)***
$\sigma^2_\varepsilon(\text{Inequality})$	0.611 (0.138)***
$\sigma^2_\varepsilon(\text{Repossessions})$	0.710 (0.161)***
$\sigma^2_\varepsilon(\text{Benefits})$	0.000 (0.000)
$\sigma^2_\varepsilon(\text{Earnings})$	0.857 (0.194)***
$\sigma^2_\varepsilon(\text{Poverty})$	0.002 (0.000)***
N	39
Log Likelihood	-137.75
Start	1971
End	2011

(Notes: \* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .)

**FIGURE 3**  
*Economic Storm Index 1971–2009*



**TABLE 3**  
*Effect of Economic Storm on Social Storm*

	$\Delta\text{SocialStorm}_t$
$\Delta\text{EconomicStorm}_t$	<b>0.511</b>
	<b>(0.236)*</b>
Intercept	0.122
	(0.252)
N	28
R-squared	0.15
Adjusted R-squared	0.12
RMSE	1.40
Durbin-Watson statistic	1.484
Rho	-0.055
Start	1981
End	2009

(Notes: \* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .)

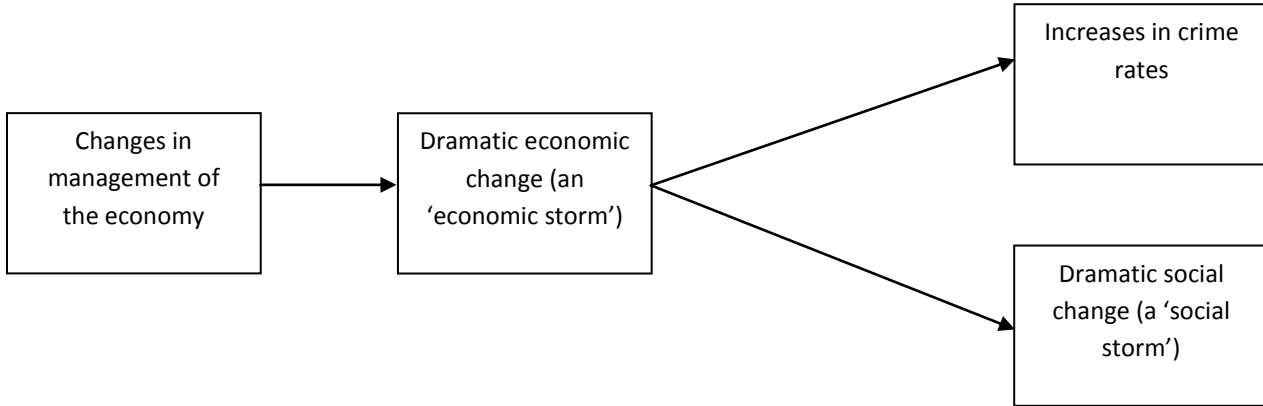
**TABLE 4**  
*Effect of Economic Storm on Recorded Property Crime*

	$\Delta Crime_t$		
	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
Crime <sub>t-1</sub>	<b>-0.147</b> (0.070)*	<b>-0.571</b> (0.164)**	<b>-0.567</b> (0.165)**
$\Delta EconomicStorm_t$	<b>1.634</b> (0.750)*	<b>2.027</b> (0.954)*	<b>2.014</b> (0.965)*
$\Delta SocialStorm_t$			0.302 (0.452)
Intercept	8.089 (3.882)*	30.835 (10.455)**	30.382 (10.545)**
N	38	28	28
R-squared	0.18	0.34	0.35
Adjusted R-squared	0.13	0.29	0.27
RMSE	3.67	3.78	3.82
Durbin-Watson statistic	1.758	1.567	1.549
Rho	0.448	0.899	0.897
Start	1971	1982	1982
End	2010	2009	2009

(Notes: \* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .)



**FIGURE 4**  
*Revised Theoretical Summary*



**TABLE A1**  
*Descriptive Statistics of Variables*

<b>Variable</b>	<b>Description</b>	<b>Mean</b>	<b>Standard deviation</b>
ΔSocialStorm	Social storm index	0.136	1.473
ΔEconomicStorm	Economic storm index	0.000	1.013
ΔCrime	Recorded property crimes per 1,000 capita	0.373	3.563

**TABLE A2**  
*Granger Causation Tests between the Economic Storm and Social Storm Indexes*

<b>Economic storm Granger causes social storm</b>	
$\chi^2$ test statistic	<b>7.214*</b>
p-value	0.027
<b>Social storm Granger causes economic storm</b>	
$\chi^2$ test statistic	0.761
p-value	0.684
AIC	5.516
Durbin-Watson <i>d</i> -statistic	2.116
Lag, selected according to AIC criteria	2
Start	1983
End	2009
N	26

(Notes: \* $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ ; Granger causation test in first differences.)