

Chapter 6: The Relationship between Economic Freedom and Homicide

by Edward Peter Stringham and John Levendis*

“The great virtue of a free market is that it enables people who hate each other, or who are from vastly different religious or ethnic backgrounds, to cooperate economically. Government intervention can’t do that. Politics exacerbates and magnifies differences.”

Milton Friedman, *New Perspectives Quarterly*, 2006: 18.

1 Introduction

We know that economic freedom is correlated with numerous positive outcomes (Gwartney, Holcombe, Lawson, 1999; Boettke, 2001; Gwartney, Lawson, Holcombe, 2006; Hall and Lawson, 2008) but do these come at a cost of bad outcomes such as violence and crime? Many social commentators assert an emphatic “yes.” They believe that countries that rely more on markets will have higher rates of crime. For example, the preface to the *Encyclopedia of Murder and Violent Crime* states: “Killing and violent behavior has permeated the development of America,” attributing this in large part to “the inevitable clash of capitalism” (Hickey, 2003: xxxi–xxxii). Others make an even stronger claim: “the only source of crime is capitalism” (Lynch and Groves, 2000: 336). But, one need not be an old-fashioned Marxist to hold this view: the edited volume *Crime and Capitalism* (Greenberg, 1993) contains 30 chapters arguing how markets cause crime. Wenger and Bonomo write “the relationship between crime and the terminal crisis of capitalism has become the subject of considerable debate ... [But] the debate does not concern the role of capitalism in producing crime—to all but the reactionary or the naïve, such questions have long been settled” (1993: 420).

To these thinkers it is beyond question that markets increase crime; nevertheless, some economists disagree. They adopt the seemingly paradoxical view that economic freedom can actually increase social cohesion and decrease conflict. Adam Smith (1776) and Frederic Bastiat (1850a), for example, believed that even if people pursue their self-interests under a market system, individuals can only gain by working for their fellow men. They argued that, even if people have different ends, the prospect of mutual gains through exchange promotes cooperation.¹ On the flipside of that same coin, many advocates of economic freedom adopted a seemingly paradoxical view about government intervention in markets: even though government intervention is advocated in the name of common interests and public welfare, it may actually create conflict (Hall and Lawson, 2009; Lee

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1 Nineteenth-century writer William Brough explained how market relationships can make relationships more peaceful: “We can hardly overestimate the importance of money as a civilizing agent in the world; there can be no trade or commerce without it; man must have it, or go back to barbarism ... [Once] man has become a trader ... He has found in profit a new incentive to industry, a spur to continued exertion ... But to succeed in his new occupation he must live in peace; his strength must not be wasted in the petty, but deadly, warfare he has hitherto carried on with neighboring tribes; he endeavors therefore to keep on good terms with them. He has already begun to add other ties to the bond of blood-relationship—ties of self-interest, which grow gradually into friendship” (1894: 4).

and Tollison, 2009). Where markets encourage cooperation by allowing people to profit by helping others, government intervention may remove those incentives by making working for others less lucrative. Relationships that could have been mutually beneficial are now potentially in conflict. Classical liberals like Bastiat (1850a, 1850b) and Cobden (1903) argued that government might pit people against each other as it transforms mutually beneficial market relationships into zero-sum political relationships.²

The idea that the free market increases cooperation and government creates conflict is counterintuitive to many and has led many to dismiss advocates of economic freedom as either naïve or simply antisocial. For example, Noam Chomsky (2002: 200) has described a libertarian society as “a world so full of hate that no human being would want to live in it.” After all, how could markets (where people are allowed to pursue their own self-interests) lead to more cooperation and government (where people are supposed to join together to advance their common interests) lead to more conflict?

Researchers associated with the Economic Freedom of the World project (Gwartney, Lawson, and Block, 1996) have documented how economic freedom is positively correlated with many positive outcomes. And it also makes sense to look whether economic freedom is correlated with certain negative outcomes such as homicide rates. Although the debate has been largely theoretical, in principle these ideas can be subject to an empirical test. For those who are unconvinced by the premises or logic of the arguments for (or against) the classical liberal theorists, looking at data may be the best way to shed light on the issue. It analyzes cross-national data to investigate whether measures of market freedom are positively or negatively correlated with measures of conflict. Ideally one would use a panel but, since nothing close to reliable panel data on international crime exists, a cross-sectional approach appears to be the best available option. Various proxies for conflict could be considered but the most objective indicator is almost definitely a society’s homicide rate. Crime reporting and statistics vary between countries, and homicide statistics are no exception. Some homicides may go unreported or be misclassified as a non-homicide (or a car accident could be misclassified as a homicide) but, of

all possible crime statistics, homicide are likely to be among the most objective (Soares, 2004: 871).

As we turn to our empirical investigation, we begin with a brief discussion on the sources and limitations of our data. We then take a brief look at several illustrative countries. Finally, we turn to our more rigorous analysis of the statistical relationship between economic freedom and homicide rates. In various regressions, we find that economic freedom is negatively correlated with homicide rates, and this statistically and economically significant result held in nearly every specification that we ran. The data indicate that economic freedom is associated with a more peaceful order.

2 Description of Data

Our dependent variable is a country’s homicide rate (per 100,000 inhabitants). The *World Report on Violence and Health*, published by the World Health Organization, provides a range of mortality figures (Krug et al., 2002). The *World Report on Violence and Health’s* homicide figures ranged from 1990 in one instance (Uruguay) to 1999 for a large sample of the countries, with the vast majority of the countries having data from 1995 to 1999. Since we wish to focus on possible causation from economic freedom to rates of homicide, we use data on economic freedom for 1995 (from Gwartney and Lawson, 2009) and we drop those countries whose homicide rates pre-date 1995.

So what are the main determinants of homicide rates? A few variables usually appear in the literature. Two related hypotheses often associated with a conservative world view is that increasing incarceration rates or introducing the death penalty can decrease homicide rates. The idea is that that incarcerating or executing more people will deter crime. Two other hypotheses often associated with liberals is that increasing equality or increasing literacy rates can decrease homicide rates: if those with low and high incomes are in close proximity, conflict may arise; or, those who are less educated may be more likely to resort to violence. The variable that seems to have been neglected is the degree of economic freedom.

Our main independent variable of interest is economic freedom. *Economic Freedom of the World: 2009 Annual Report* (Gwartney and Lawson, 2009) reports an index of economic freedom (EFW index) using 37 pieces of data in five major Areas: [1] Size of Government:

2 For a discussion of the political economic contributions of Cobden and Bastiat, see Stringham, 2004 and Caplan and Stringham, 2005.

Expenditures, Taxes, and Enterprises; [2] Legal Structure and Security of Property Rights; [3] Access to Sound Money; [4] Freedom to Trade Internationally; and [5] Regulation of Credit, Labor and Business. The index ranks countries on a 10-point scale where higher scores indicate a greater degree of economic freedom. Since much of the data for other variables in our study are from the early 2000s and late 1990s, we use data for the year 1995 from *Economic Freedom of the World: 2009 Annual Report*. In order to investigate whether differences in homicide rates could be related to changes in economic freedom—that is, by differences in rates as opposed to differences in levels—we also constructed a “trend in freedom” variable, equal to the difference between a country’s economic-freedom scores in 2000 and 1995.

The data from *Economic Freedom of the World: 2009 Annual Report* (EFW) is used in most regressions reported here but we also replicated the regressions using the *Index of Economic Freedom* (IEF), compiled by the Heritage Foundation (Miles et al., 2006). The IEF examines 50 pieces of data in 10 major categories: trade policy, fiscal burden of government, government intervention in the economy, monetary policy, capital flows and foreign investment, banking and finance, wages and prices, property rights, regulation, and informal market activity. The index ranks countries on a 5-point scale where lower scores indicate a greater degree of economic freedom. Since data from *Economic Freedom of the World* is more transparent, most of our regressions use that measure of economic freedom.

The International Centre for Prison Studies publishes *The World Prison Brief* (2005), a compilation of data that includes a range of information on the prison systems of 215 nations and principalities. This study uses the incarceration rate of each country, expressed as the number of prisoners per 100,000 inhabitants.

An indicator variable is generated for the existence of a death penalty. The Justice Center at the University of Alaska-Anchorage, using information from Amnesty International, published a comprehensive synopsis of the state of the death penalty in the international arena in its Alaska Justice Forum in 1999. Countries were split into four different categories: those that retain the death penalty; those that are “abolitionist de facto” (have not executed anyone in the last 10 years or have made an international commitment not to carry out executions); those that retain the death penalty only for exceptional crimes (such as wartime crimes); and those that have abolished the death penalty entirely. This paper uses the

strictest definition—only those countries whose laws do not provide for a death penalty are deemed not to have the death penalty and thus receive the null-value in the dummy variable set.

The Gini index data is from *The World Factbook* published by the CIA (2003). A Gini coefficient is a measure of income inequality within a country where higher scores indicate higher levels of income inequality. This paper uses the Gini index, which is simply the Gini coefficient (bounded by zero and one) multiplied by 100. Most countries’ Gini data in *The World Factbook* is from the mid- to late 1990s.

Literacy rates are also taken from the *The World Factbook*. The vast majority of the countries in our sample define “literate” as being able to read and write by age 15. *The World Factbook* was also used to create a variable indicating the origin of a country’s legal system using five categories: French, German, English, Nordic, and Socialist.

Data on income per capita, percent of population living in rural areas, and unemployment levels are from the World Bank’s *World Development Indicators* for 1997. In order to smooth uneven or missing yearly data, an average of unemployment rates from 1996 to 2000 for each country in the sample was calculated.

Alesina et al. (2003) provide fractionalization measures on three margins for 190 countries. Fractionalization is a concept that attempts to quantify the ethnic, linguistic, and religious diversity within a country. As calculated, the value generated for all three fractionalization measures represents the probability that “two randomly selected individuals from a population [belong] to different groups.” (Alesina et al., 2003: 158–59). Higher values in fractionalization imply more diverse populations within the respective category.

Table 6.1 shows the summary statistics of the variables considered. One can see that the average annual homicide rate is 6.6 per 100,000 inhabitants, and the average economic freedom score is 6.0 out of 10 (where 10 would be the most free). Table 6.2 shows the pair-wise correlations between the main variables in our study. The economic freedom indices are significantly correlated with each other as well as to the homicide rate. We find, though we do not show, that the incarceration rate and the death penalty indicator are significantly correlated with each other, and positively correlated with homicide rates but not at high levels of significance. The Gini index is correlated with the homicide rate and the literacy rate at high levels of significance and correlated with the other variables at lower levels of significance.

Table 6.1: Summary statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|-------------------------------|-----|--------|-----------|------|-------|
| Homicide rate (per 100k) | 63 | 6.64 | 9.33 | 0.5 | 61.6 |
| Economic freedom (EFW) | 115 | 6.00 | 1.23 | 3.44 | 9.08 |
| Economic freedom (IEF) | 61 | 2.65 | 0.71 | 1.56 | 4.28 |
| Incarceration rate (per 100k) | 63 | 202.76 | 145.95 | 58 | 714 |
| Death penalty | 63 | 0.52 | 0.50 | 0 | 1 |
| Gini index | 58 | 35.50 | 8.72 | 23.2 | 59.7 |
| Literacy rate | 55 | 96.25 | 5.54 | 67.5 | 100 |
| Ethnic fractionalization | 61 | 0.34 | 0.20 | 0.00 | 0.71 |
| English legal origin | 56 | 0.14 | 0.35 | 0 | 1 |
| Unemployment rate | 58 | 9.07 | 6.54 | 0.72 | 46.24 |
| Percent rural | 61 | 32.36 | 16.76 | 0 | 75 |
| GDP per capita | 62 | 11623 | 12097 | 160 | 44440 |

Note: EFW = *Economic Freedom of the World: 2009 Annual Report* (Gwarney and Lawson, 2009; Fraser Institute); IEF = *Index of Economic Freedom* (Miles et al., 2006; Heritage Foundation).

Table 6.2: Correlation matrix

| | Homicide rate | Economic freedom (EFW) | Economic freedom (IEF) | Incarceration rate | Death penalty | Gini index | Literacy rate |
|-------------------------------|---------------|------------------------|------------------------|--------------------|---------------|------------|---------------|
| Homicide rate (per 100k) | 1 | | | | | | |
| Economic freedom (EFW) | -0.41 | 1 | | | | | |
| Economic freedom (IEF) | 0.41 | -0.62 | 1 | | | | |
| Incarceration rate (per 100k) | 0.21 | -0.09 | -0.02 | 1 | | | |
| Death penalty | 0.13 | -0.32 | -0.02 | 0.43 | 1 | | |
| Gini index | 0.49 | 0.01 | 0.17 | 0.28 | 0.12 | 1 | |
| Literacy rate | -0.28 | 0.07 | -0.35 | 0.02 | 0.06 | -0.57 | 1 |

Note: EFW = *Economic Freedom of the World: 2009 Annual Report* (Gwarney and Lawson, 2009; Fraser Institute); IEF = *Index of Economic Freedom* (Miles et al., 2006; Heritage Foundation).

3 Investigating the relationship between economic freedom and crime

When pondering the determinants of crime the discussion is usually about variables such as inequality and literacy rates or the extent of law enforcement (whether through incarceration rates, the existence of a death penalty, or both). To date, though, no one has tested the hypothesis that economic freedom is a determinant of homicide rates. Thus, our baseline specification is:

$$\begin{aligned} (\text{homicide rate}) = & \beta_1 + \beta_2 (\text{economic freedom}) \\ & + \beta_3 (\text{incarceration rate}) \\ & + \beta_4 (\text{death penalty}) + \beta_5 (\text{gini}) \\ & + \beta_6 (\text{literacy rate}) + \epsilon, \end{aligned}$$

where *homicide rate* is the homicide rate in a society per 100,000 people, *economic freedom* is a country's economic freedom rating, *incarceration rate* is a country's incarceration rate, *death penalty* is a variable indicating whether a country has the death penalty, *gini* is a country's Gini index (higher numbers mean more inequality), and *literacy rate*

is the total literacy rate in a country. In the rest of the paper, we focus on data from *Economic Freedom of the World* (where higher scores on its 10-point scale indicate more economic freedom) but table 6.3 shows regressions with economic freedom data from the Fraser Institute's *Economic Freedom of the World* (EFW) and the Heritage Foundation's *Index of Economic Freedom* (where lower scores on its 5-point scale indicate more economic freedom) and both regressions indicate similar results.

Table 6.3 shows the results of the baseline regressions of homicide rates on *incarceration rate*, *death penalty*, *gini*, and *literacy rate*. Regression 1 includes *economic freedom* data from *Economic Freedom of the World*, while Regression 2 includes the *economic freedom* data from the *Index of Economic Freedom*. In both regressions, *economic freedom* is significantly correlated with *homicide rates* where increases in *economic freedom* are associated with decreases in the *homicide rate*. In Regression 1, *economic freedom* is significant at the 1% level, showing that each one-point improvement in *economic freedom* (on the scale from *Economic Freedom of the World* where higher is more free) is associated with a decrease in the *homicide rate* of 3.7 per 100,000.

Table 6.3: Baseline regressions (dependent variable: homicides per 100,000 people)

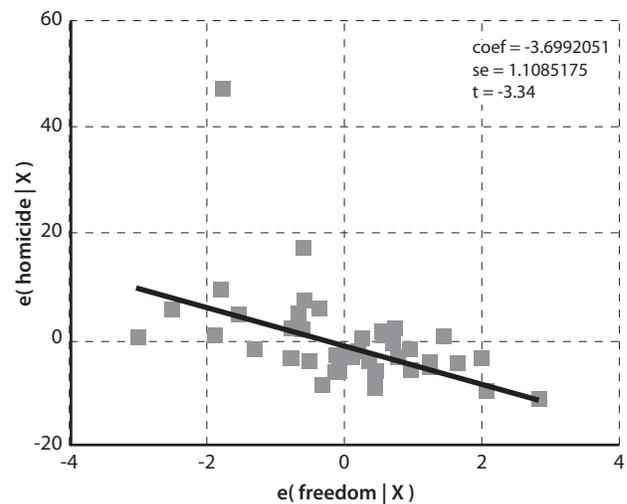
| | <i>Economic Freedom of the World</i> (1) | <i>Index of Economic Freedom</i> (2) |
|------------------------|---|---|
| Economic freedom (EFW) | -3.699*** (0.00) | |
| Economic freedom (IEF) | | 4.659** (0.02) |
| Incarceration rate | 0.005 (0.66) | 0.006 (0.57) |
| Death Penalty | -2.484 (0.45) | 0.013 (1.00) |
| Gini index | 0.61*** (0.00) | 0.512*** (0.01) |
| Literacy rate | 0.11 (0.71) | 0.094 (0.75) |
| Constant | -2.093 (0.95) | -34.116 (0.31) |
| Observations | 41 | 50 |
| R-squared | 0.432 | 0.332 |

Notes: p-values are in parentheses; * is significant at 10%; ** significant at 5%; *** significant at 1%. EFW = *Economic Freedom of the World: 2009 Annual Report* (Gwarney and Lawson, 2009; Fraser Institute); IEF = *Index of Economic Freedom* (Miles et al., 2006; Heritage Foundation).

To answer McCloskey and Ziliak's (1996) question,³ the results are indeed economically significant. If this linear relationship were to hold, if a country increased its economic freedom score from 6 out of 10 to 7 out of 10, its homicide rate would decrease from 12 per 100,000 to 8.3 per 100,000. In Regression 2, *economic freedom* is also significant here at the 5% level, showing that each one-point improvement (on Heritage's scale where lower is more free) is associated with a decrease in the homicide rate of 4.7 per 100,000. The fact that decreases in the homicide rate are significantly correlated with increases in economic freedom on both of these indexes is remarkable. In all regressions in this dataset, the *incarceration rate* and the *death penalty* indicator are positively but not significantly correlated with the *homicide rate*.⁴ A higher *gini index* is also associated with higher rates of homicide.⁵

Figure 6.1 and figure 6.2 show the partial regression plots for the baseline regressions. In figure 6.1, moves towards the right (increases in *economic freedom*, on the EFW index) are associated with decreases in the *homicide rate*. Likewise, increases in economic freedom (movements to the left on the Heritage scale) are associated with decreases in homicide rates. Obviously, one can find specific countries that have above or below normal rates of

Figure 6.1: Partial regression plot for regression 1 (dependent variable: homicide rate) with EFW data



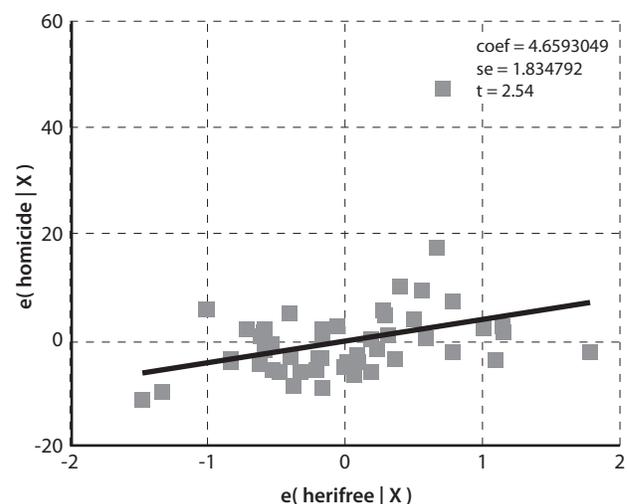
Note: EFW = *Economic Freedom of the World: 2009 Annual Report* (Gwarney and Lawson, 2009; Fraser Institute); higher scores indicate more economic freedom.

3 McCloskey and Ziliak (1996) maintain that economists should not just talk about the statistical significance but also economic significance. In other words, economists should talk about whether the relationship between variables is actually important.

4 Whether increasing the incarceration rate or introducing the death penalty will decrease crime is not an *a priori* but an empirical question. It can drive crime in either direction for the following reasons. First, many of those incarcerated are being punished for nonviolent offenses and these laws may be socially disruptive enough that they will lead to more crime (Fletcher, 1999, July 12). For example, it would be curious to believe that sending innocent businessmen to the *gulag* in the Soviet Union would decrease homicide rates. Second, even if punishment is isolated to murderers, increasing the *ex post* penalties one has to “pay” for murder is not equivalent to raising the *ex ante* price for an ordinary good. With market exchange, both parties have to agree *ex ante* and, if the price becomes too high, the consumer cannot buy; but with homicide one can raise the *ex post* penalty to infinity yet still have homicides taking place because perpetrators need not have any money to commit their crime. Because a murderer can choose to commit his crime at any price, there is no *a priori* reason that the “demand curve” for homicide has to be downward sloping.

5 For a discussion of ways to alter Gini coefficients in nations, see Stringham et al (2007).

Figure 6.2: Partial regression plot for regression 2 (dependent variable: homicide rate) with IEF data



Note: IEF = *Index of Economic Freedom* (Miles et al., 2006; Heritage Foundation); higher scores indicate less economic freedom.

Table 6.4: Robustness of homicide rate regressions (dependent variable: homicides per 100,000 people)

| | (1) | (2) | (3) | (4) | (5) |
|---------------------------------|---------------------|---------------------|--------------------|---------------------|--------------------|
| Economic Freedom | -3.514*** (0.00) | -3.659*** (0.02) | -2.974** (0.03) | -4.037*** (0.00) | -3.802** (0.03) |
| Incarceration rates | 0 (0.97) | 0.004 (0.79) | 0.006 (0.64) | 0.006 (0.61) | 0.005 (0.65) |
| Death Penalty | -3.371 (0.30) | -2.355 (0.53) | -2.109 (0.53) | -3.608 (0.34) | -2.544 (0.45) |
| Gini index | 0.549*** (0.01) | 0.612*** (0.01) | 0.598*** (0.01) | 0.588*** (0.01) | 0.615*** (0.01) |
| Literacy rates | 0.231 (0.43) | 0.105 (0.76) | 0.126 (0.70) | 0.052 (0.87) | 0.106 (0.73) |
| Ethnic fractionalization | 14.586* (0.08) | | | | |
| English legal origin | | 0.003 (1.00) | | | |
| Unemployment rate | | | 0.498 (0.21) | | |
| Percent rural | | | | -0.087 (0.52) | |
| GDP per capita | | | | | 0 (0.93) |
| Constant | -15.903 (0.62) | -1.793 (0.96) | -12.732 (0.72) | 9.372 (0.81) | -1.397 (0.97) |
| Observations | 41 | 38 | 40 | 40 | 41 |
| R-squared | 0.48 | 0.43 | 0.46 | 0.44 | 0.43 |

Notes: p-values in parentheses; * significant at 10%; ** significant at 5%; *** significant at 1%.

homicide for their level of economic freedom,⁶ but overall a clear relationship between the two variables exists. To test for robustness, we also look at other variables, including a country's legal origin, measures of ethnic fractionalization, and gross national income per capita.⁷

6 For example, US homicide rates are higher than Italian homicide rates even though levels of economic freedom in the United States are slightly higher than levels of economic freedom in Italy. But that says little about the overall relationship among all nations. In addition, when other things are not equal, it should not be surprising to find a country with an abnormally high or low homicide rate for its level of economic freedom. We thank an anonymous referee for suggesting that we highlight this point.

7 Additional variables were analyzed, but since none of them considerably changed the basic results, they are not reported here.

Table 6.4 shows that the baseline results are robust, with economic freedom remaining significant in all regressions, even if a few other potentially important variables are added. Regression 3 adds the ethnic fractionalization index created by Alesina et al., which measures the probability that "two randomly selected individuals from a population [belong] to different groups" (2003: 158–59). Adding ethnic fractionalization to the regression yields weakly significant results for that variable, but economic freedom is still significant at the 1% level. Without reporting the results here, Alesina et al.'s (2003) indices of religious and linguistic fractionalization were also added separately and they did not significantly alter the results. This indicates that a country could have more ethnic, religious, or linguistic fractionalization without it affecting homicide rates.

Regression 4 looks at whether the origin of a country's legal system is correlated with homicide rates. In this regression, the variable for British legal origin is not significant but *economic freedom* remains significant, now at the 5% level. We ran this regression a few ways, including all but one of the legal-origin dummies, and none of them came up as significant. Regression 5 adds the average *unemployment rate* from 1996 to 2000. This additional variable is not correlated with *homicide rates* and *economic freedom* is still significant. Regression 6 adds a variable that measures the percentage of people living in rural areas (*percent rural*) and, here too, this additional variable is not significant, while *economic freedom* remains significant. Finally, Regression 7 helps us consider the possibility that *economic freedom* might lead to lower *homicide rates* solely because places with more economic freedom tend to have higher income per capita. In other words, the link between *economic freedom* and *homicide rates* might be indirect. By holding income constant, we can isolate the effect of *economic freedom*. Once again, this extra variable is neither significant nor does it take away from the significance of *economic freedom*.⁸ In every regression, economic freedom rates are significantly and negatively correlated with homicide rates.

4 Case studies

Ideally one could use multiyear panel data to see how changes in economic freedom within countries lead to changes in homicide rates over time. Even though no reliable international panel datasets for homicide exist, one can look at changes within countries where multiyear data on homicide rates is available. We looked at countries that had experienced large changes in homicide rates or economic freedom.⁹ For each of these countries,

8 One might wonder whether rates of change in economic freedom matter more than levels of economic freedom. We thank a referee for bringing up this question. To investigate this separate hypothesis, we re-ran the regressions from table 6.4, but included "trend in freedom" as a covariate rather than the level of economic freedom. Results, available on request, indicate that the rate of change in economic freedom has no statistical relationship with homicide rates. In other words, we find that, as far as homicide rates are concerned, it does not matter whether people are becoming more free, but whether they are free.

9 Countries with stable rates of homicide and economic freedom are not the most interesting to examine over time, although data where neither variable changes is also consistent with the hypothesis that the two variables are correlated.

we created a time-series of its homicide rate so we can see how it relates to economic freedom over time. In quite a few countries, a very clear pattern is apparent.

As figure 6.3 shows, countries such as Colombia, Latvia, Lithuania, and South Africa immediately illustrate the negative relationship between economic freedom and homicide rates. These instances lend support to the statistical relationship found in the cross-sectional regressions: increases in economic freedom are associated with decreases in homicide.

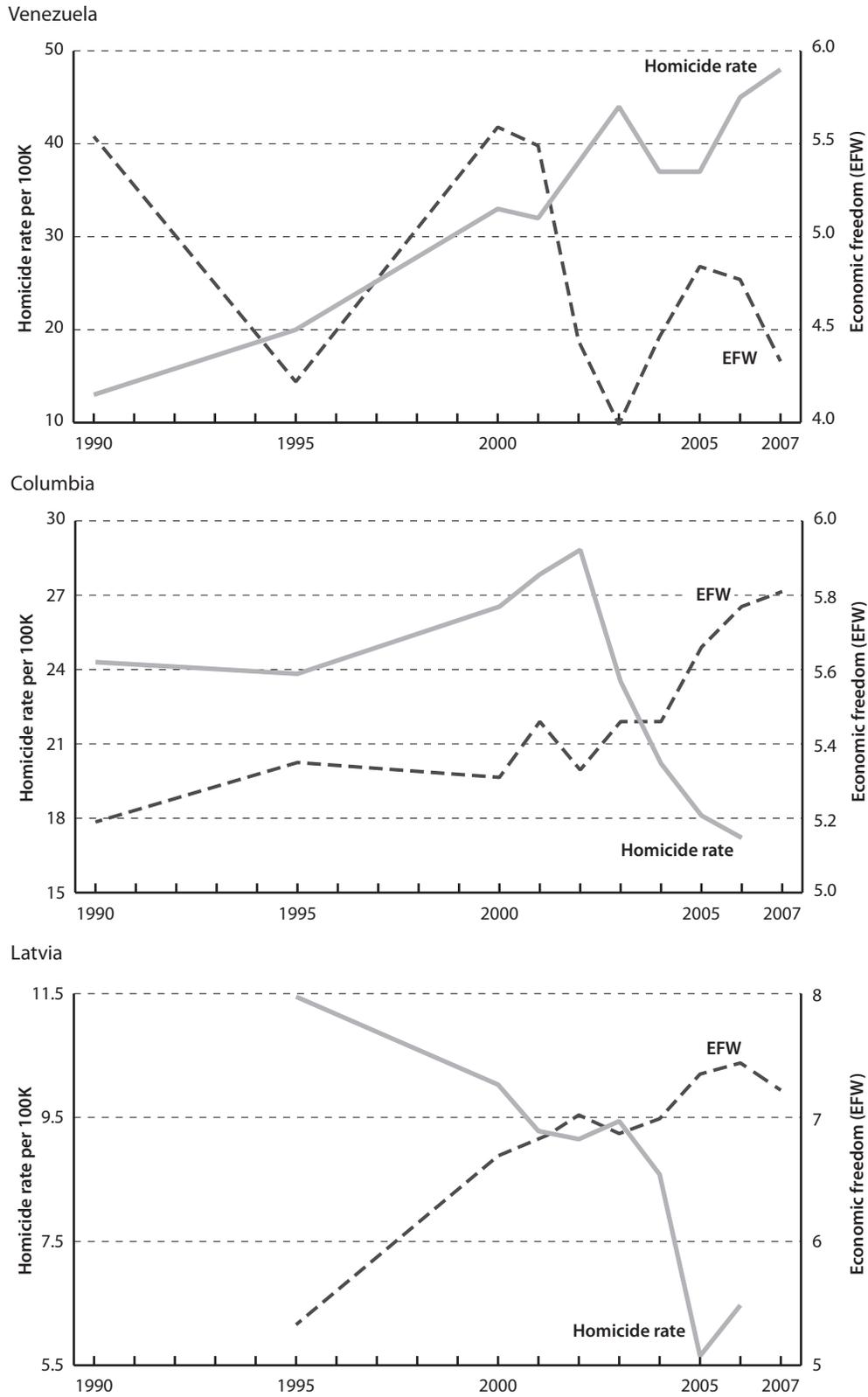
Economic freedom and homicide in Venezuela

Few countries illustrate the possibility of a relationship between economic freedom and homicide as colorfully as Venezuela, so we shall spend some time discussing it in detail. The US Department of State (2010) reports that currently Venezuela has one of the highest homicide rates in the world. Over the last two decades, Venezuela has seen an erratic but downward trend in economic freedom and an increase in homicides. In 1990, Venezuela had an economic freedom score of 5.56. Shortly after, in 1992, Hugo Chavez attempted a coup that was unsuccessful at the time. In 1994/1995, President Rafael Caldera tried to increase the role of the government, leading to further economic collapse (O'Grady, 1998, December 4). With a fall in economic freedom of 1.6 points, Venezuela's economy was in decline. After some prompting, Caldera's government began a process of liberalization. Social security was to be downsized and partially privatized.

This process was underway when, in 1998, Chavez was elected as president. The high negative correlation between murder rates and economic freedom in Venezuela becomes very apparent around this time. The year after Chavez was elected unemployment rates rose to 15.6%, the highest level in 30 years. Venezuela's economy is dominated by the price of oil,¹⁰ yet Venezuela's GDP was tumbling even though oil prices were rising. This was the first time in five business cycles that Venezuela had a recession when oil prices were high (Rowan, 1999, November 26). During 1999/2000, Chavez pushed through a new constitution, replaced the attorney general, the comptroller, most of the Supreme Court, and gave his government the right to nationalize any company it deemed "in the national interest" (Vogel, 1999, December 30). By 2000, trading volumes in the Caracas Stock Exchange were down 30% from their level three years previous (Druckerman, 2000, July 26). Despite these

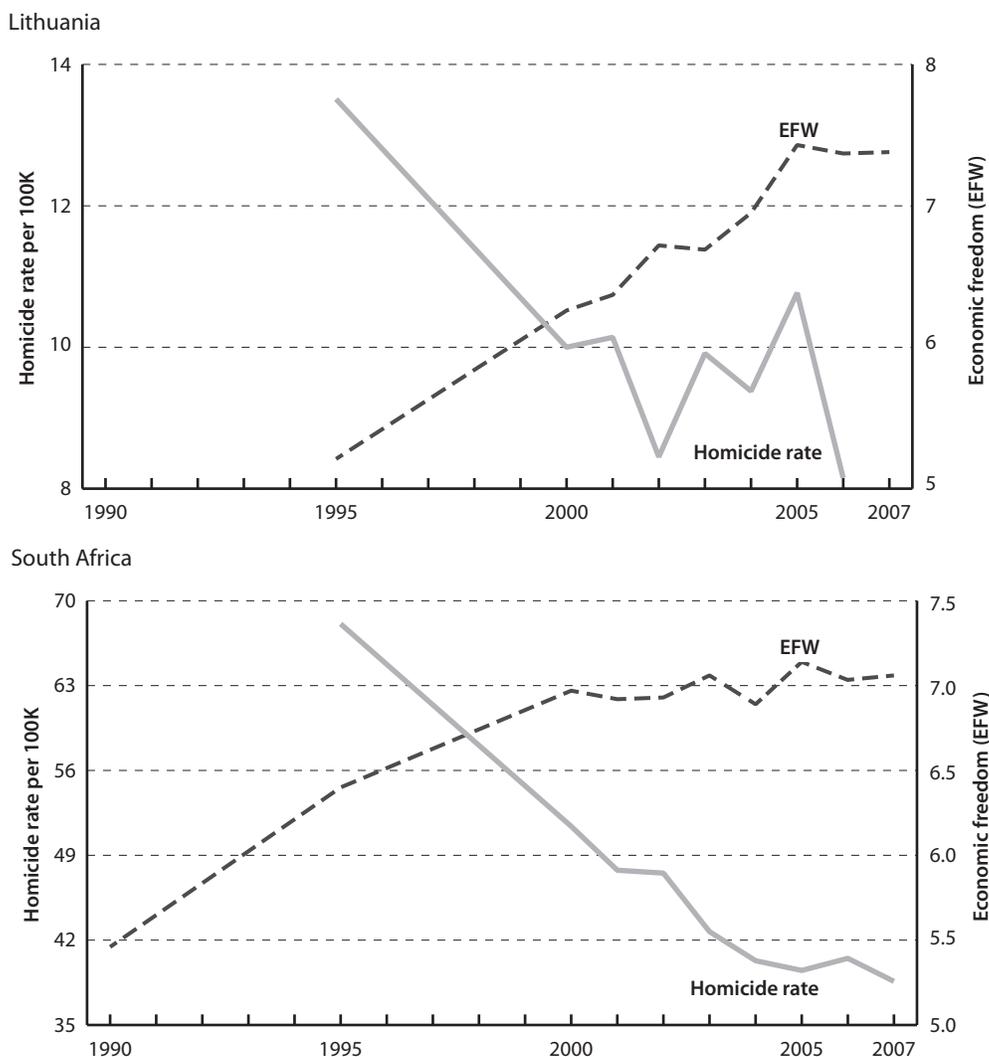
10 Venezuela is the world's fifth-largest producer and competes with Saudi Arabia as the largest supplier to the United States.

Figure 6.3: Examples of the relationship between economic freedom and homicide rates



Sources: see "Appendix: Sources for time series in figure 6.3" (p. ____).

Figure 6.3 continued: Examples of the relationship between economic freedom and homicide rates



Sources: see "Appendix: Sources for time series in figure 6.3" (p. ____).

declines, Venezuela had some significant improvements at this time. A large reduction in inflation and more freedom to trade internationally let to Venezuela's economic freedom numbers being substantially higher.

In 2001, however, governmental control over the economy became more pronounced. The government imposed a new tax on oil and hydrocarbons, required that all new foreign petroleum ventures be governmentally controlled, and declared that they could seize any farm deemed as not being put to its best use (whatever that means) (Lifsher, 2001, December 6; Bahree and Lisher, 2002, April 18). After surviving a coup in 2002, Chavez forcibly took control of Caracas' police force from the mayor, whom he viewed as a political opponent (O'Grady, 2002, November 29). Venezuela's economic freedom

score dropped over a full point, from 5.5 to 4.4, with most of the declines coming from a reduced access to sound money and diminished freedom to trade internationally.

One of the worst years for economic freedom in Venezuela was 2003, when there were drops across most sub-components of economic freedom. In 2003, Chavez' government imposed exchange-rate controls, the third time this drastic measure was imposed in Venezuela in 20 years (Cordoba and Barrionuevo, 2003, January 23). "Not one more dollar for the putschists; the bolivars belong to the people,' Mr. Chavez proclaimed ... while handing out land to urban squatters" reported Marc Lifsher (2003, February 5: A14) of the *Wall Street Journal*. GDP. declined almost 20% in the first half of 2003 alone. The government continued to seize various plants, including a Coca-Cola

bottler; Microsoft closed two offices and Conoco-Phillips withdrew all “non-essential expatriate staff” (O’Grady, 2003, January 24). That year, Venezuela’s EFW score for Area 2: Legal Structure and Security of Property Rights, was at its lowest level since 1990.

The years 2001 to 2003 witnessed a massive drop of 38% in economic freedom (from 5.49 to 3.99) and a simultaneous 38% increase in murder rates (from 32 to 44 per 100,000 residents). Fears of mass chaos were widespread. According to the *Wall Street Journal*:

Locked for the past year in an intense conflict, the citizens of Caracas ... are now teetering on the edge of a world of competing police forces and roving armed thugs, reminiscent of the postapocalyptic “Mad Max” movies ... Caraquenos in penthouses and slums alike fear the worst: an even more violent version of the 1989 social earthquake known as the *Caracaso*, in which thousands of slum-dwellers swarmed down from the hills, looted and pillaged the city after the government decreed a steep increase in the price of public transport. Army troops ruthlessly restored order two days later. The government admitted to some 600 fatalities, but many believe the real death toll was in the thousands ... So far the political strife has taken about 130 lives and wounded 300 people. Venezuela, says political analyst Alberto Garrido, is “like a disturbed, angry ant hill.” (Cordoba and Lifsher, 2003, February 11: A13)

Economic and social stability in Venezuela was clearly tenuous at this time. Inflation was 27% in 2003 and 19.2% in 2004; over 2003/2004, Venezuela earned the dubious honor of having the world’s second largest rate of inflation (Chelminski, 2005, February 25). Yet matters improved in certain areas in 2004. With global oil prices at historically high levels, oil companies dared to re-engage with Venezuela (Luhnow, 2004, August 24), and GDP increased by a reported 17.3% (Chelminski, 2005, February 25), offsetting the declines of the previous two years.

Among factors that lowered economic freedom at the margin was a 50%-increase in governmental spending (funded in large part by the increase in oil revenues) (Lyons, 2004, November 16). In 2005, the process of expropriation of businesses continued, with, among others, the seizure and nationalization of a Heinz tomato-processing plant, a gold mine owned by Crystallex, and grain silos owned by Venezuela’s largest food company (Cordoba and Heinzl, 2005, September 23). As economic freedom dropped again from 2005 to 2007, murder rates rose from 37 to 48 per 100,000.

By 2006, Venezuela had become the world’s most violent country. According to one resident of Caracas, the price for murder for hire was as low as \$50. With resources allocated along political lines, there is open discussion of class warfare (Reel, 2006, May 10). By 2010, Hugo Chavez can boast that the murder rate had quadrupled during his “11 years in power, with two people murdered every hour” (Reuters, 2010, March 11). The homicide rate now stands at 54 per 100,000. The movements of economic freedom and homicide in Venezuela is consistent with the data in the cross-sectional regressions.

4 Conclusion

Economic freedom and homicide rates are negatively correlated. This result was significant in nearly every regression run. The classical liberal hypothesis that markets promote social cooperation and that government intervention creates conflict is supported by the data. These findings may be important for a few reasons. From a positive point of view, they indicate that classical liberals are not “reactionary” or “naïve” as many assume (Wenger and Bonomo, 1993: 420). Not only do classical liberals have well-thought-out theories of why markets increase cooperation, but their theories are consistent with the facts. From a normative point of view, the findings indicate a previously unconsidered influence on homicide and a possible way to decrease it. If the relationship holds, one of the best ways to decrease homicide rates would be to move towards *laissez-faire*.

Appendix: Sources for time series in figure 6.3

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