Social-economic change and its impact on violence: Homicide history of Qing China[☆],[☆☆]

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ARTICLE INFO

ABSTRACT

This paper constructs a quantitative history of the homicide rate in Qing China and investigates its social and economic drivers. Estimates based on historical archives indicate that this annual rate ranged between 0.35 and 1.47 per 100,000 inhabitants during the 1661–1898 period, a low level unmatched by Western Europe until the late 19th century. China's homicide rate rose steadily from 1661 to 1821 but declined gradually thereafter until the turn of the century. Although extreme, homicide represents a random sampling of the entire distribution of interpersonal violence; hence the homicide rate serves as a proxy for overall violence, and its rise implies a decline in personal security. We use national and cross-provincial panel data to show that population density, state capacity, local self-governance, interregional grain market integration, and grain price level (which captures crop failure and other survival distress) are all statistically significant drivers of the homicide rate in 18th- and 19th-century China.

1. Introduction

Historians often divide China's Qing Dynasty (1644–1911) into an early period of prosperity and a late period of stagnation or decline (Rowe, 2011). Starting from the Kangxi reign in 1661 and ending after the Qianlong reign (about 1813), the prosperous period was distinguished by high income growth and social tranquility (hence this period is often referred to as the "Kangxi–Qianlong Prosperity"); in contrast, the rest of the 19th century was marked by economic stagnation, or decline, and war.[1] This conventional view about the Qing is supported by standard economic measures such as GDP (Maddison, 2007), living standards (Allen et al., 2011), and population gain. According to Maddison, China's population grew from 138 million in 1700 to 381 million in 1820 and to 437 million by 1913—a cumulative growth of 176% from 1700 to 1820 but only 15% for the century that followed. Thus, economic growth was far greater in the 18th than in the 19th century. China also experienced major humiliating wars in the latter

period: the First Opium War (1839–1842), the Second Opium War (1856–1860), the Sino-Japanese Naval War (1894–1895), and the war against the Eight-Nation Alliance (1900).

Yet standard economic measures are only partial indicators of a society's development progress and cannot reflect the full picture. In this paper, we construct China's homicide rate history and investigate the socio-economic drivers of changes in violence during the period from 1661 to 1898. Our goals are to shed new light on Qing China's economic history and to improve our understanding of the interacting dynamics between economic growth and social change. In particular, we focus on ordinary interpersonal violence by excluding war and other organized intergroup violent acts. Because the lack of suitable data makes it difficult to estimate general "ordinary" violence, we rely instead on the homicide rate as a proxy. In so doing, we assume that ordinary violence and the homicide rate are highly correlated. Although the homicide rate is not a performance measure in the vein of income growth, population change, or other economic measures, it does capture an important dimension of ordinary people's well-being and living standards. A society in which the homicide rate rises is one characterized by reduced well-being of its members and increasingly insecure property rights. According to North et al. (2009), the use of violence is restrained by political and economic institutions that give individuals control over resources, which in turn shapes the incentives faced by those in a position to commit violent acts. It follows that the level of interpersonal violence is a good indicator of progress in institutional and economic development. The "civilizing process" theory of Elias (2000) holds that, at the individual level, humans have developed a higher level of self-control by way of literacy, education, and cultural consumption (e.g., reading and group learning). Because the homicide rate is driven by social, economic, and institutional factors, it is also an intertemporally and internationally consistent measure of interpersonal violence and associated insecurity (Baten et al., 2014). For these reasons, we seek to assess the different periods of Qing China by using the homicide rate's level and trajectory.

Using sources kept at the First National Historical Archives of China, we offer the first estimate of interpersonal homicide rates for the period 1661–1898. Our main finding is that the national homicide rate ranged between 0.35 and 1.47 homicides per 100,000 population annually, which was much lower than in Western Europe at the time.[2] More specifically, China's homicide rate rose steadily from about 0.6 (per 100,000 population) in 1661 to about 1.47 in 1821—an increase of 145% over the 140-year period! Thus, underlying this increasing homicide rate was a significant increase in ordinary interpersonal violence during the Kangxi–Qianlong Prosperity. The opposite occurred from 1821 onward, when the national homicide rate was in decline.[3]

In order to explain the intertemporal variation in China's homicide rate, we propose—and use cross-provincial panel data to test—several hypotheses. Our *population pressure* hypothesis states that significant population growth and large-scale migration put considerable stress on society and cause more conflicts to occur until new norms are firmly established. This hypothesis is consistent with Buoye's (2000) finding that, when large numbers of migrants enter a region, the effect of ambiguous property rights on disputes may be exacerbated until new norms emerge. Our *survival distress* hypothesis assumes that, when grain prices rise (because of crop failures or other risk events), the ability of ordinary people to survive is challenged and forces some individuals to seek violence. The link between crop failure and violence is well established in the literature (e.g., Anderson et al., 2013; Bai and Kung, 2011; Jia, 2013).

According to Elias (2000) and Eisner (2003), state formation represents both a civilizing and a pacifying process because social order is likely to improve once the state monopolizes the legal use of violence, imposes rules, and enforces them. Miller (2013a, 2013b) and Wakeman (1998) document that state power was on the rise – and civilian self-governance was in decline – during the Kangxi–Qianlong era, although these trends reversed starting early in the 19th century. We hypothesize that the level of state power must have effects on violence, though the net impact may be difficult to determine. There are at least three channels through which state power affects the level of violence.

First, state power might make government agencies more efficient and improve the overall society's law and order, leading to lower violence rates. We refer to this as the *state capacity* channel, which in our empirical implementation is captured by a region's "*Chong*" rating (applied to key administrative zones) by the Qing government; when a region was rated *Chong*, the government would likely send a more capable official to govern that region and in that way increase state capacity there (or at least signal such an increase). Second, the rise of state power might weaken local self-governance institutions and thus reduce the role of the gentry (Miller, 2013a, 2013b; Wakeman, 1998), leading to greater social disorder and more violence at the local level; we refer to this as the *gentry* channel. Third, newly gained state power might be directed at setting up regional border barriers to prevent grains and other goods from flowing between provinces or other administrative zones. Thus, for example, grain markets actually became less integrated across regions from the early 18th century to the early 19th century; as a consequence, ordinary people became less able to cope with crop failure (and other income shocks), which in turn led to more violence. We refer to this as the *market integration* channel.

Our empirical exercise uses Chinese cross-provincial homicide data to show that, during the 18th and 19th centuries, provinces with higher population density and higher grain prices (reflecting both population pressure and food supply conditions) experienced higher homicide rates—especially if these conditions were accompanied by less integration of grain markets, lower state capacity (as proxied by a sub-*Chong* rating at the provincial level), and fewer gentry in the province. These findings are largely consistent with

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[2] According to Eisner (2003), Western European communities during the 17th–19th centuries had a homicide rate that ranged between 0.6 and 12. The European rates did not approach the low levels in China until the 19th century. Why did China have much less violence among ordinary people than did its Western counterparts? One could follow North et al. (2009) and develop a complete explanation of the contrast in homicide rates between China and the West, but that undertaking is beyond the scope of this paper.

[3] The death rate due to war was probably falling (and lower) during the Kangxi–Qianlong period than during the post-1820 Qing period, which saw such deadly conflicts as the Taiping Rebellion. We follow Eisner (2003) and Elias (2000) in focusing on ordinary interpersonal violence.