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Copper Burglary and Copper Prices in Rochester, NY

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Introduction

In recent months the theft of some metals, especially objects made of copper, has received considerable attention in the media. Recently CPSI staff learned of a steep decline in “copper burglaries” in the City of Rochester over the past couple of months. That information prompted to following brief analysis. We are grateful for the assistance of staff from the Monroe County Analysis Center and the Rochester Police Department on this project.

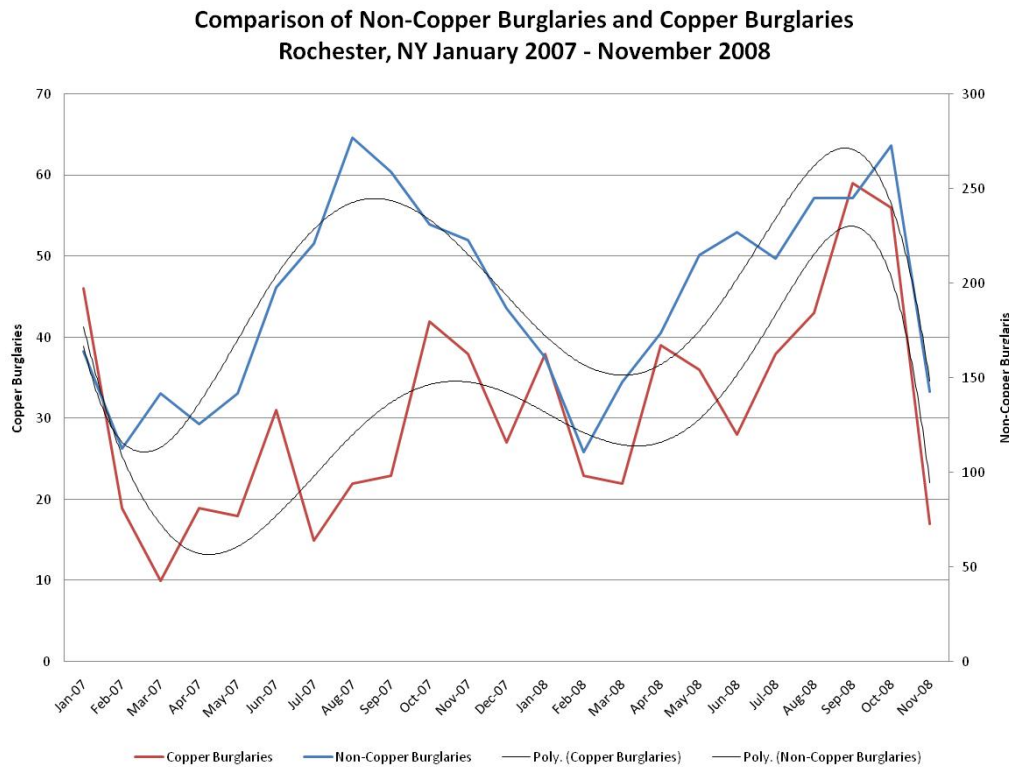
Trends

Copper Burglaries most often involve the removal of copper wire and/or pipe from residential property or the theft of such material from construction sites. Vacant or abandoned properties are especially vulnerable. Nearly eighty percent of Rochester’s copper burglaries have occurred in vacant property and nearly 80% occurred during renovations of that property. Costly damages often result from this offense including flooded basements, gas leaks and walls damaged to gain access to pipes. As the owner of many unoccupied properties, this offense is especially costly to the City of Rochester.

In Rochester Copper burglaries showed a generally increasing trend over the past two years. They averaged 30 per month in Rochester and peaked at 59 in September of this year before falling dramatically. There were 17 reported copper burglaries in November, 2008.

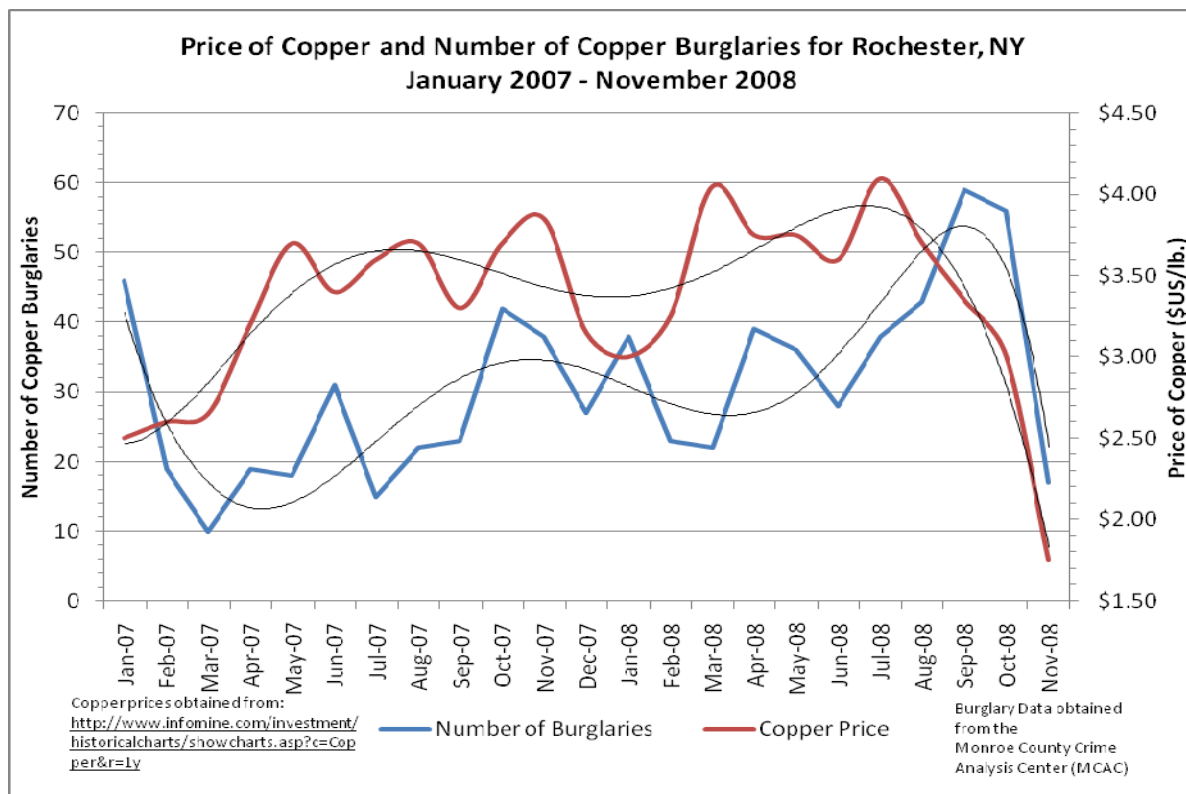
Copper and Non-Copper Burglaries

We began analysis by considering the similarities and differences in the trends in copper and non-copper burglaries. That comparison is charted below. The graph shows that both copper and non-copper burglaries show a distinct pattern associated with seasonality. Burglaries, including copper burglaries rise in spring and summer and decline for the fall and winter seasons. The black lines simply show the general trend in the data.



The Price of Copper

Beyond seasonality we also examined the relationship between the number of copper burglaries and the price of raw copper internationally. The chart below shows that relationship. For the months covered copper price varied between \$1.75 and \$4.05 per pound. The trendlines indicate a moderately strong relationship between the two factors. In fact that analysis shows that the trend is for the number of copper burglaries to lag behind the price of copper. The relationship is strongest with a 2 month lag ($r=.64$). In fact, regression analysis shows that the price of copper, lagged by 2 months, is a stronger predictor of the number of copper burglaries than the overall burglary trend.



The Criminology of Copper Burglaries

The relationship between the price of copper and the number of copper burglaries raises a variety of interesting criminological issues. The instrumental nature of the offenses raises questions about whether copper burglars increase the number of burglaries they commit as copper prices rise or whether rising prices draw in new offenders or offenders from other crime categories. Likewise, are copper burglars themselves specialists or generalists who commit a wide variety of offences? Another question raised by this analysis deals with structure of copper burglary. For example, are the burglars' direct outlets for scrap metal legitimate businesses or are there middle men who move material into the legitimate scrap metal market?

Intervention

This analysis is very limited but does suggest some general themes for intervention; the most obvious deals with the need to educate potential victims. Owners of unoccupied properties should be aware of the risks of copper burglary particularly when copper prices are high and

when the numbers of this crime rises. Along those lines contemporary criminological theories suggest the potential value of guardianship which prevents motivated offenders from easy access to vulnerable targets. Finally, the analysis suggests there may be some value in deterrence policies which raise the perceived potential costs of this offense through well publicized arrests and penalties. This may also apply to potential middlemen or those who engage in corrupt business practices related to copper theft. The link between the illicit economy of copper thefts and the legitimate economy of the copper commodity trade

There is good reason to consider intervention issues at the present time when copper prices are down and there has been a drop in the number of copper burglaries. The price of raw copper has been associated with patterns of world-wide economic development. China, in particular, has been a voracious consumer of copper. When the world economy recovers from its current recession the pace of economic development in China and elsewhere will resume or quicken. Increases in the price of copper are inevitable, as are increases in copper thefts in Rochester and elsewhere. Furthermore prolonged periods of high copper prices and thefts will begin to exhaust the supply of easy targets for thieves-vacant houses. Evidence from elsewhere indicates that thieves may move on to even more costly and dangerous targets such as public utilities, including the functioning electrical infrastructure. Reducing that potential is an important matter of public policy.