Abstract

Global economic problems have impacted national statistics in a variety of ways. In particular, the continuing crisis in the Eurozone economies and the European Union’s reaction have both increased underground economic activity and spurred legislative action intended to make economic activity more transparent. Proposed and enacted laws have focused on limiting cash transactions and reducing tax evasion through tax havens. This paper will discuss how these changes coupled with technological advances that allow for the collection and manipulation of large amounts of data may alter economic indicators.

Eurozone economy

The economic downturn in Europe has altered economic activity, particularly in the southern members of the Eurozone. Due to the economic crisis, many citizens of affected EU member states have reportedly turned both to underground employment and underground economic transactions. While relatively common before the crisis, this activity has allegedly increased in recent years in southern Europe (Smith 2013; Cala 2012). This underground activity generally relies heavily on cash, barter, or an alternative currency such as Bitcoin or one of the other currencies that have been developed in various localities.

Another economic feature that is unique to the Eurozone is the potential for a Member State to exit the euro, which can affect the behavior of individuals in the Eurozone. Eurozone members have less control over the euro than they did over their national currencies. Due to the strength of some members’ economies, most notably Germany, relative to southern Europe, the euro is more valuable than would be the national currencies of southern Europe. A Member State exiting the Eurozone would cause the euros in its banks to be converted to a national currency, which would be worth less than the euros. Therefore, citizens of crisis stricken nations have an incentive to either keep euros in cash form or transfer their euros to banks in Germany or another nation not facing a possible exit.

Other potential consequences of the financial crises have also increased the incentive for citizens to withdraw cash from banks. In 2013, in talks with the EU and IMF, Cyprus agreed to use bank depositors’ accounts worth more than 100,000 euros to recapitalize Cypriot banks. Additionally, the Dutch Finance Minister and head of the Eurogroup of Eurozone finance ministers Jeroen Dijsselbloem noted that this policy of requiring bank depositors to “bail-in” could be applied elsewhere in the Eurozone, causing concern among citizens in other EU countries.

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1 “Underground” in this context means economic activity not reported to the government. The economic activity itself may not be criminal, though the lack of reporting to the government for tax purposes is.
These events have increased the incentive to avoid the banking systems of crisis plagued nations. However, while individuals’ interests may be best served by holding cash or using alternative currencies, national governments and banking systems face reduced tax revenue and capital.\(^2\)

**EU and national legislation**

As a result of the economic crisis, the EU and various Eurozone members have proposed and passed legislation, largely to combat tax evasion. For example, Member States such as Italy, Spain, and Greece, have banned cash transactions over designated amounts.

EU level efforts has includes both negotiations with non-EU nations to reduce tax havens and the EU Savings Directive, which requires EU members to report taxable income of EU citizens to their home nations. Other recommendations from the EU include the use of pre-filled tax forms, which are currently used at least partially by ten EU members and the use of third-party reporting of income to governmental tax authorities (Jensen and Woehlbier 2012).

**Impact on economic indicators**

The economic crisis and the resulting underground economic activity can impact the validity of economic indicators. The underground economy is difficult to measure.\(^3\) Activities such as barter, cash transactions, and the use of alternative currencies are often not reported and are not directly included in GDP. If these activities occur more in some segments of the economy, such as the service industry, or in some regions of a country, or among some segments of the population, estimates can be biased. Similarly, for structural reasons small companies may be more likely to hire “off the books” and therefore the administrative data used in official statistics may exaggerate the difference in hiring and recovery between small and medium to large companies.

These activities can also affect household budget surveys, which measure consumer expenditure activity in the EU. Respondents may not think to report these activities or may not be able to place a value on them, which can lead to underreporting of consumer spending.

The EU legislation may mitigate these impacts on economic indicators. By banning large cash transactions, reported economic activity will increase, particularly in those nations that had a large number of such transactions.\(^4\) Relatedly, the potential for increased use of electronic transactions that might be used in both administrative data collections and to produce better recall in consumer surveys. Studies on both the U.S. Consumer Expenditure Survey and European Household Budget Surveys have found that electronic records can produce better recall when respondents are willing to use this information to complete the survey and that administrative data produce by electronic records can be used to obtain partial data.\(^5\)

**References**


\(^2\) One example is the reported increased use of Bitcoin in reaction to the Cyprus crisis, and the Central Bank of Cyprus’ reaction (Stevis 2014)

\(^3\) [http://ec.europa.eu/europe2020/pdf/themes/07_shadow_economy.pdf](http://ec.europa.eu/europe2020/pdf/themes/07_shadow_economy.pdf)

\(^4\) Short of banning cash completely, large cash transactions can still occur. However, if they are illegal, both a buyer and seller must knowingly violate the law to complete such a transaction, whereas previously only the seller knew whether he was reporting the transaction to tax authorities.

\(^5\) In addition, the expansion of electronic systems allows for the implementation of programs such as that recommended by Norwegian statisticians at Eurostat’s task force in March 2010 to use e-cards specifically designed for expenditure surveys.
