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Does gold offer a better protection against losses in sovereign debt bonds than other metals?

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ABSTRACT

It is a commonly held view that gold protects investors' wealth in the event of negative economic conditions. In this study, we test whether other metals offer similar or better investment opportunities in periods of market turmoil. Using a sample of 13 sovereign bonds, we show that other precious metals, palladium in particular, offer investors greater compensation for their bond market losses than gold. We also find that industrial metals, especially copper, tend to outperform gold and other precious metals as hedging vehicles and safe haven assets against losses in sovereign bonds. However, the outcome of the hedge and safe haven properties is not always consistent across the different bonds. Finally, our analysis suggests that copper is the best performing metal in the period immediately after negative bond price shocks.

1. Introduction

The financial media normally regard gold as a safe haven asset. Its characteristics as a financial asset have also been widely explored in the academic literature. Gold has been a traditional investment vehicle since it serves as a hedge against inflation and a safe haven in periods of market crises (see Cai et al., 2001; Baur and McDermott, 2010; Daskalaki and Skiadopoulos, 2011; Batten et al., 2013). It has also been widely documented that gold protects investors' wealth against fluctuations in the foreign exchange value of the US dollar (Capie et al., 2005; Pukthuanthong and Roll, 2011; Reboredo, 2013; Ciner et al., 2013). The observed increase in the value of gold during the recent financial crisis has motivated other researchers to test explicitly its viability as a safe haven from losses in other financial markets. Baur and McDermott (2010) show that gold protects investors against stock market shocks in major European countries and the US, but does not serve as a safe haven for Australia, Canada, Japan and emerging stock markets. Similarly, Baur and Lucey (2010) find that gold is a safe haven for stocks, but not for bonds, in the US, the UK and Germany.

The main objective of this study is to investigate whether gold is a special investment vehicle or if it has become relegated in status to the same standing as other metals, which are primarily for industrial purposes and traded as commodities. There is no sound theoretical model to explain why gold may act as a safe haven, but a major explanation often put forward is that gold was among the first forms of money and has traditionally acted as an inflation hedge (Baur and Lucey, 2010). However, since the collapse of Bretton Woods system and the move to floating exchange rate regimes, the market for gold and silver have changed dramatically (Hillier et al., 2006). The monetary element of these precious metals has gradually been replaced and their industrial use has been extended. Furthermore, the extensive use of gold as a hedging vehicle has also sparked the utilization of other precious metals as risk management tools and diversifying commodity portfolios (see, e.g., Marshall et al., 2008; Belousova and Dorfleitner, 2012). Since gold has more characteristics in common with other metals, particularly precious ones, than it does with any other commodities, investors may treat metals as a separate asset class (Belousova and Dorfleitner, 2012). This, in turn, would cause gold prices to comove more

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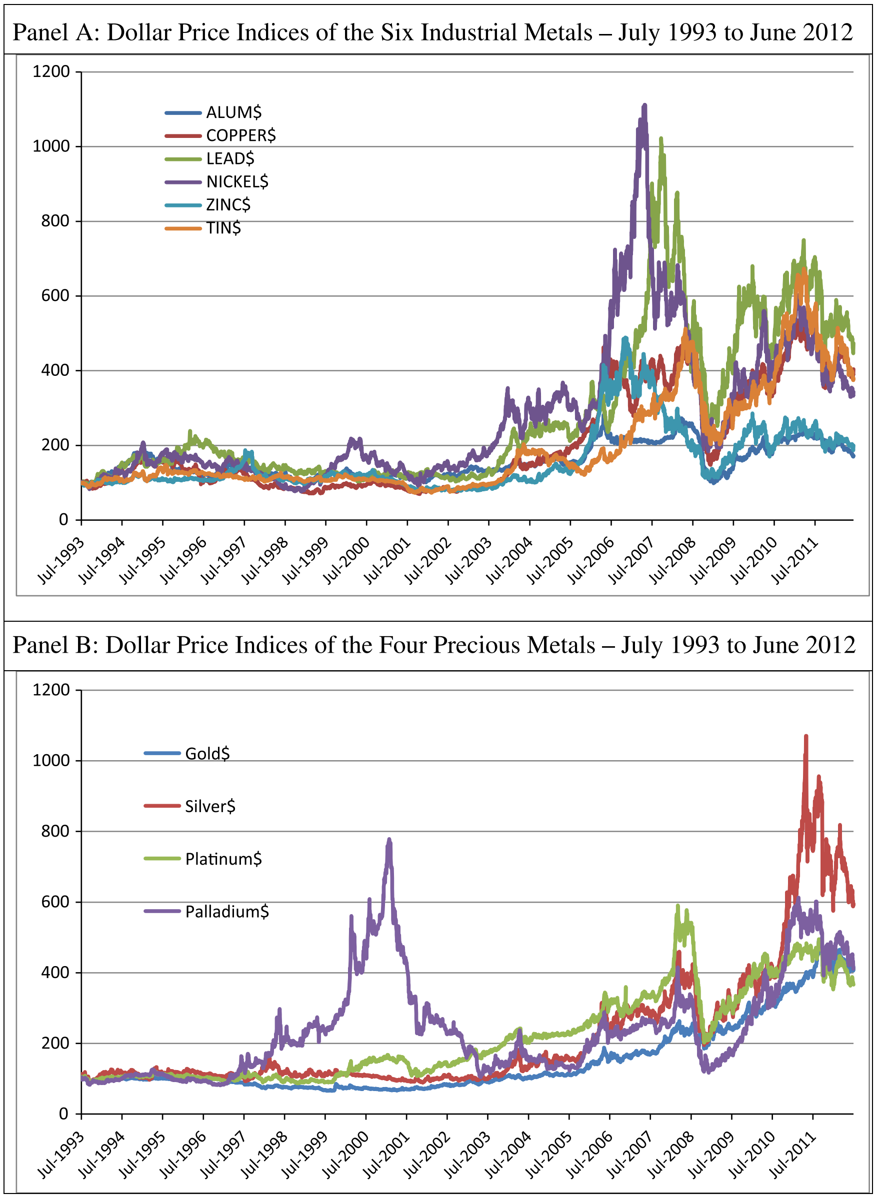

Fig. 1. Dollar price indices of industrial and precious metals – July 1993 to June 2012 (July 1993 = 100).

with metals than other commodities (see Pindyck and Rotember, 1990; Pierdzioch et al., 2013 among others).[1,2]

Consistent with the comovement evidence, Daskalaki and Skiadopoulos (2011) show that the returns on major precious metals, including gold, silver, platinum and palladium, exhibit low correlations with stock returns. Morales and Andreosso-O'Callaghan (2011) find that the precious metals markets are less affected by the recent global financial crisis than other major financial markets around the world. Erb and Harvey (2006) and Roache and Rossi (2010) also find that gold and silver prices are counter-cyclical, implying that precious metals other than gold may also protect investors' wealth in the events of negative stock market conditions. Furthermore, observed marked data (see Fig. 1 and Panel B of Table 2 below) suggests that industrial metals also comove with precious metals. Thus, industrial metals may also serve as a place of safety in the events of negative economic conditions and this leads to the following important questions: (i) to what extent does gold protect investors' wealth against sovereign-debt crisis? (ii) does gold offer a better protection against sovereign-debt crisis than other metals? and (iii) is the protection, if any, offered by gold and other metals against sovereign credit deteriorations short- or long-lived?

While the hedge and safe haven properties of gold have explicitly been examined in the context of both stock and bond markets (Baur and McDermott, 2010; Baur and Lucey, 2010), the role of other precious and industrial metals as hedging vehicles and safe haven assets has not yet been explicitly explored. This study

[1] Gold and precious metals can be reused or recycled for new fabrication, which provide an additional source of supply. This is in stark contrast to energy, agricultural and livestock commodities which are spent, consumed, or transformed but are rarely recoverable. Metals also tend to have longer shelf lives and are less susceptible to adverse storage conditions than agricultural commodities. They can also be transported without the need for specialised infrastructure such as in the case of oil or natural resources.

[2] Indeed, our correlation analysis (see Table 2 below) indicates that metals tend to co-move and the comovement is, in some cases, stronger during periods of crisis.