

UNIVERSITA' DEGLI STUDI DI BRESCIA Dipartimento di Economia Aziendale e Dipartimento di Metodi Quantitativi



Early Warning Systems For Financial Crises

Martedì 8 Giugno alle ore 9:15

Facoltà di Economia

C.da S. Chiara, 50 - Brescia

EARLY WARNINGS AND FINANCIAL CRISES: SOME REFLECTIONS PAOLO MANASSE

Dipartimento di Economia, Università di Bologna, IGIER-Bocconi e RCEA

FITTING AND FORECASTING SOVEREIGN DEFAULTS USING MULTIPLE RISK SIGNALS

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MONEY GROWTH AND INFLATION: A REGIME SWITCHING APPROACH

GIANNI AMISANO Banca Centrale Europea e Università degli Studi di Brescia

> **GABRIEL FAGAN** Banca Centrale Europea

'REAL TIME' EARLY WARNING INDICATORS FOR COSTLY ASSET PRICE BOOM/BUST CYCLES: A ROLE FOR GLOBAL LIQUIDITY

LUCIA ALESSI

Banca Centrale Europea

CARSTEN DETKEN

Banca Centrale Europea

THE USE OF VARIABLE IMPORTANCE MEASURES IN EARLY WARNING SYSTEMS

PAOLA ZUCCOLOTTO

Dipartimento di Metodi Quantitativi, Università degli Studi di Brescia

MODALITÀ di PARTECIPAZIONE

La partecipazione è gratuita. Per motivi organizzativi è necessario comunicare la propria adesione inviando **entro il** 6 Giugno 2010 un messaggio all'indirizzo email vezzoli@eco.unibs.it indicando nome, cognome, ente di appartenenza, indirizzo, recapito telefonico. **Proff. Maurizio Carpita e Roberto Savona**

Abstracts

EARLY WARNING SYSTEMS AND FINANCIAL CRISES: SOME REFLECTIONS

PAOLO MANASSE

The author discusses issues relating to alternative approaches for developing Early Warning Systems for preventing financial crises in the light of the current European financial crises. What lessons can be drawn for European and advanced countries from the experience of Emerging Markets with currency, banking and sovereign default crises?

FITTING AND FORECASTING SOVEREIGN DEFAULTS USING MULTIPLE RISK SIGNALS

ROBERTO SAVONA E MARIKA VEZZOLI

The authors face the fitting versus forecasting paradox with the objective to realize a new early warning system to better describe and predict past and future sovereign defaults. Using data on 66 emerging markets over the period 1975-2002, they show that the new model provides accurate description of past data, although not the best description relative to existing competing models (Logit, stepwise Logit, Noise-to-Signal Ratio, Regression Trees), and produces the best forecasts. By modulating in- and out-of sample model accuracy, the methodology leads to unambiguous empirical results, since they find that illiquidity, insolvency and contagion risks act as the main determinants/predictors of past/future debt crises.

MONEY GROWTH AND INFLATION: A REGIME SWITCHING APPROACH

GIANNI AMISANO E GABRIEL FAGAN

The authors develop a time-varying transition probabilities Markov Switching model in which inflation is characterised by two regimes (high and low inflation). Using Bayesian techniques, they apply the model to the euro area, Germany, the US, the UK and Canada for data from the 1960s up to the present. The estimates suggest that a smoothed measure of broad money growth, corrected for real-time estimates of trend velocity and potential output growth, has important leading indicator properties for switches between inflation regimes. Thus money growth provides an important early warning indicator for risks to price stability.

'REAL TIME' EARLY WARNING INDICATORS FOR COSTLY ASSET PRICE BOOM/BUST CYCLES: A ROLE FOR GLOBAL LIQUIDITY

LUCIA ALESSI E CARSTEN DETKEN

The authors test the performance of a host of real and financial variables as early warning indicators for costly aggregate asset price boom/bust cycles, using data for 18 OECD countries. A 'real time' signalling approach is used to predict asset price booms that have serious real economy consequences. They use a loss function to rank the indicators given policy makers' relative preferences with respect to type I and II errors and suggest a new measure for assessing the usefulness of indicators. Global measures of liquidity, in particular a global private credit gap, are the best performing indicators and display forecasting records, which are informative for policy makers interested in timely reactions to growing financial imbalances.

THE USE OF VARIABLE IMPORTANCE MEASURES IN EARLY WARNING SYSTEMS

PAOLA ZUCCOLOTTO

Early Warning Systems (EWS) are typically complex and computationally intensive. In addition, many experts prefer to formulate their own subjective estimation of the probability of occurrence of the event rather than completely rely on a statistical prediction. As a result, EWSs are usually used with a less ambitious purpose than prediction, that is simply for interpretation With this aim, we can compute indicators of the importance of covariates in predicting the outcome (Variable Importance Measures) and use them to identify the risk factors of the analysed event. Experts can then use this information in taking their decisions.