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# Financial Conditions Indexes for the United States and Euro Area

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## **Research Department**

## Financial Conditions Indexes for the United States and Euro Area

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### Abstract

Financial conditions indexes are developed for the United States and euro area using a wide range of financial indicators and a dynamic factor model. The financial conditions indexes are shown to be useful for forecasting economic activity and have good revision properties.

JEL Classification Numbers: E5, E17, E44

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<sup>&</sup>lt;sup>\*</sup> The author would like to acknowledge comments from Jörg Decressin, Vladimir Klyuev, Alasdair Scott, Krishna Srinivasan, and Emil Stavrev. The paper outlines the methodology behind financial conditions indexes that appear in the World Economic Outlook.

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#### I. INTRODUCTION

Financial conditions indexes (FCIs) have long been used to assess the current state of financial conditions. FCIs are typically constructed using either simple weighted averages or the first principal component of a range of financial indicators. This paper develops FCIs for the United states and the euro area using a wide range of financial indicators and a dynamic factor model (DFM).<sup>2</sup> A key advantage of this framework relative to other methodologies is that the FCIs can be estimated when values for some indicators are missing due to publication lags, which allows all available information to be used in a timely fashion.<sup>3</sup>

In a real-time forecasting experiment, it is found that simple closed economy VARs augmented with the estimated FCIs produce better forecasting performance than a range of other model specifications. It is also found that the revision properties of the FCIs are generally good over the sample period considered. The results suggest that the FCIs can not only provide useful summary measures of the state of financial conditions, but also useful information about the evolution of economic activity in real time.

#### II. METHODOLOGY

The DFM assumes that each standardized indicator of financial conditions,  $y_t$ , can be decomposed into a common component,  $\chi_t$ , and an idiosyncratic component,  $\varepsilon_t$ . The common component captures the bulk of the covariation between  $y_t$  and the other indicators in the data set, whereas the idiosyncratic component is assumed mainly to affect only  $y_t$ :

$$y_t = \chi_t + \varepsilon_t, \quad \varepsilon_t \sim N(0, \psi)$$
 (1)

where  $\chi_t = \Lambda F_t$  and  $\psi$  is assumed to be diagonal. The common component is thus simply a scaled common factor,  $F_t$ , which is estimated using the entire set of financial indicators. For each economy, the FCI is defined to be this common factor.

The dynamics of the FCI are captured by an autoregressive process:

$$F_{t} = \sum_{i=1}^{p} \beta_{i} F_{t-i} + \nu_{t}, \quad \nu_{t} \sim N(0, I_{q})$$
(2)

where the  $\beta$ s are coefficients and p is the lag length of the process. In this paper, the lag length, p, is selected using the Swartz-Bayesian information criteria (SBC). See Giannone, Reichlin, and Small (2008) for a more detailed description of how the procedure deals with

<sup>&</sup>lt;sup>2</sup>See, for example, Giannone, Reichlin and Small (2008) and Matheson (2010).

<sup>&</sup>lt;sup>3</sup>Hatzius, Hooper, Mishkin, Schoenholtz, and Watson (2010) use a similar methodology to construct an FCI for the United States, but do not take account of publication lags at the end of the sample in their forecasting experiment and the real-time revision properties of their FCI are not examined.

missing observations, and Doz, Giannone, and Reichlin (forthcoming) for details on estimation.

## **III. DATA DESCRIPTION AND RESULTS**

For each economy, selecting data from a broad set of financial indicators is a crucial step. Most series are measured at a monthly frequency, with the remainder measured at daily or quarterly frequencies. Before estimation, all series are converted to monthly frequency, transformed to be free from non-stationarity, if necessary, and standardized.<sup>4</sup> The remaining indicators are not transformed. The sample period for the FCIs used here begins in 1994. Indicators that are not available for the entire period, such as survey data for the euro area, are backdated using the DFM prior to estimation over the full sample.<sup>5</sup>

The indicators used in each economy's FCI and information about how the indicators are classified and transformed is listed in table 1. The table also includes the estimated factor loadings,  $\lambda$ , which reflect the weight of each indicator in the FCI. Each loading can take a positive or negative value, depending on whether a high or low value of the indicator in question implies a tightening or an easing in financial conditions. The Senior Loan Officer Survey (SLOS) data (for which a positive number indicates a tightening of financial conditions) generally have high positive factor loadings, such as the BAA/10-year government bond spread in the United States and the high-yield corporate/10-year government bond spread in the euro area. Negative loadings generally predominate in the "prices" categories, reflecting a tendency for prices to rise when financial conditions ease.

Figure 1 shows the estimated FCIs, along with contributions from each class of indicator. Both FCIs show an easing in financial conditions in the years preceding the global financial crisis. Just prior to the crisis, financial conditions began to tighten significantly in both the United States and the euro area, peaking around the beginning of 2009. According to the FCI, financial conditions only began to ease around the beginning of 2010, despite extremely accommodative monetary policy settings in both the United States and the euro area.

# **IV. FORECASTING PERFORMANCE**

To assess the usefulness of the FCIs, a baseline quarterly closed economy vector-autoregressive model (VAR), including the output gap, headline inflation, and a real

<sup>&</sup>lt;sup>4</sup>The quarterly series are linearly interpolated, whereas the daily series are converted to monthly averages. Quarterly log differences are taken of the non-stationary indicators. Note, the in-sample results are very similar if the FCIs are estimated using quarterly data, but using monthly data offers more timely estimates of financial conditions at the end of the sample in real time.

<sup>&</sup>lt;sup>5</sup>The assumption that  $\psi$  is diagonal is relaxed when backdating these indicators.

short-term interest rate is adopted.<sup>6</sup>

An out-of-sample forecast evaluation exercise is then conducted for the period from the first quarter of 2004. The VAR forecasts are constructed in two steps in each quarter of the out-of-sample period. First, the FCI is estimated using all data that would have been available at the beginning of the third month of each quarter.<sup>7</sup> Second, the FCI is added to the baseline VAR specification and used to forecast all variables beyond the period in which the most recent GDP data would have been available in real time. Using the latest available estimates of the output gap as the target for the forecasts, root mean squared errors (RMSEs) are then computed for forecasts two- and four-quarters ahead.

For comparison purposes, RMSEs are also computed for a variety of other forecasts: an autoregressive forecast (AR); a forecast from the baseline VAR, without the FCI; and forecasts from the baseline VAR augmented with each of the underlying indicators that were used to construct the FCI separately. In each quarter of the out-of-sample period, all models are re-estimated and all lag lengths are re-selected using the SBC. The RMSEs for each model relative to those of the AR are displayed in the right columns of the table 1: a number less than 1 indicates the forecast is more accurate than the AR forecast.

The results are striking. For both the United States and the euro area, the forecasting performance of the VAR augmented with the FCI is good relative to the other models. The FCI forecast outperforms the AR and all other VAR forecasts for the United States. For the euro area, the FCI forecast is at least as accurate as almost all other models, with the VAR augmented with the indicators from the SLOS the only exceptions.

# V. REAL-TIME PROPERTIES

Because the FCIs are estimated and can change with the arrival of more data, it is useful to gauge their revision properties over time. Figure 2 displays estimates of the FCIs based on data available up to March 2011 (in black), along with the monthly estimates of the FCI made each month of the out-of-sample period (in red).<sup>8</sup> The figure shows that revisions to the FCIs over time have generally been small relative to their overall variance. Moreover, over this sample, there are very few 'false signals', where an initial estimate of an easing or tightening in financial conditions is later revised away. The period around 2008 in the euro area is an exception, with the real-time estimates indicating an easing in financial conditions, which were later estimated to be a tightening in financial conditions.

<sup>&</sup>lt;sup>6</sup>The output gap and the real short-term interest rate are taken from a much larger, more sophisticated model – the Global Projection Model (GPM). See Carabenciov, Freedman, Garcia-Saltos, Laxton, Kamenik, and Manchev (forthcoming).

<sup>&</sup>lt;sup>7</sup>Due to a lack of available data, the data vintages the would have existed in real time are not used. Instead, the most recent vintage of data is used to simulate the data available each time a forecast is made. Real-time output gaps and short-term real interest rates are simply truncated from the most recent GPM estimates.

<sup>&</sup>lt;sup>8</sup>In each month, the end point for the FCI estimate matches that of the GDP data that would have been available at the time.

#### VI. CONCLUSION

This paper developed FCIs for the United States and the euro area, estimated using a wide range of financial indicators and a dynamic factor model. In a real-time forecasting experiment, it was found that simple baseline closed economy VARs augmented with the estimated FCIs produced better forecasting performance than a range of other model specifications. It was also found that the revision properties of the FCIs have generally been good over the sample period considered. The results suggest that FCIs can not only provide useful summary measures of the state of financial conditions, but also useful information about the evolution of economic activity in real time.

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Inductory or construction Models         Native Freq         Pirst Oss.         Category         Transform         A         2 (Dirs Acted)           United States         Baseline VAR         1.23         1.05           Baseline VAR         1.23         1.05           Boseline VAR         1.23         1.05           Personal Metric Varia         0.84         0.79           Particle Varia         0.84         0.79           Particle Varia         0.84         0.73           Particle Varia         0.84         0.73           Particle Varia         0.84         0.72           Particle Varia         0.84         0.72           Particle Varia         0.84         0.72           Particle Varia         0.84         0.78           Particle Varia         0.78         0.78         0.78           Particle Varia         Spreads         Level         0.72         1.20         1.33           Particle Varia         Spreads         Level         0.72         1.23         1.31           Particle Varia         Spread         Level         0.72         1.20         1.34           Particle Varia         Particle Varia         1.23         1.23         <							RMSEs Re	lative to AR	
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3-month LHBOR/OSIS Spread         (aii)         2003M09         Spreads         Level         0.13         1.14         1.30           Credit spread Carporate Financial Sector (Citi)         (aii)         1994M01         Spreads         Level         0.61         1.09         0.98           All Broad Trade Weighted Exchange Value of the USS         (aii)         1994M01         Spreads         Level         0.67         1.19         1.34           Month Commercial Pager / Fed Funds Spread         (aii)         1994M01         Spreads         Level         0.61         1.09         0.98           PB: Carde Perroke Index Weighted Exchange Value of the USS         monthly         1994M01         Prices         Growth         0.18         1.27         1.17           Wishing S00 Price Index (Fpuic Carbo         monthly         1994M01         Prices         Growth         0.32         1.24         1.15           CoreLogic National House Price Index         monthly         1994M01         Quantities         Growth         0.02         1.31         1.22           Maser Signer Pager Index         monthly         1994M01         Quantities         Growth         0.07         1.31         1.22           Maser Signer Pager Index         monthly         1994M01         Quanti	Jumbo Mortgage/30yr Conventional Spread	monthly	2005M04	Spreads	Level	0.72	1.20	1.19	
Bank ratio on new car loans, As months/2 Y (over Bonz Spread         monthly         1994M01         Spreads         Level         0.17         1.25         1.22           TED Spread         daily         1994M01         Spreads         Level         0.61         1.09         0.98           Honth Commercial Paper / Fed Funds Spread         daily         1994M01         Spreads         Level         0.61         1.09         0.98           Real Broad Trade-Weighted Exchange Value of the USS         monthly         1994M01         Spreads         Level         0.61         1.27         1.17           Real Broad Trade-Weighted Exchange Value of the USS         monthly         1994M01         Spreads         Level         0.51         1.27         1.17           PPI Crade ParcedExchange Value of Commercial Paper Stope         monthly         1994M01         Quartities         Growth         0.62         1.34         1.25           Cord Logic National House Price Index         monthly         1994M01         Quartities         Growth         0.60         1.31         1.22           Cord Logic National House Price Index         monthly         1994M01         Quartities         Growth         0.61         1.03         1.02           More Stock: MAUZ zero Maturity         monthly	3-month LIBOR/OIS Spread	daily	2003M09	Spreads	Level	0.83	1.14	1.30	
Creat special Carporatic Primarcial Sector (Ch1)         monthiny         1994a01         Spreads         Level         0.01         1.09         0.98           1 Month Commercial Paper / Fed Funds Spread         daily         1994A001         Spreads         Level         0.07         1.19         1.34           Math Commercial Paper / Fed Funds Spread         daily         1994A001         Spreads         Level         0.67         1.19         1.34           Math Commercial Paper / Fed Funds Spread         daily         1994A001         Spreads         Level         0.67         1.19         1.34           Month Synthesin Commercial Paper / Fed Funds         Math Math Prices         Growth         0.35         1.28         1.17         1.35           CoreLagic Nithoring A.10 Basers         monthly         1994A001         Quantities         Growth         0.62         1.14         1.06           Value of Issuers of Commercial Paper (20 Days         monthly         1994A001         Quantities         Growth         0.63         1.22         1.22           Value of Issuers of Commercial Paper (20 Days         monthly         1994A001         Quantities         Growth         0.43         1.24         1.23         1.20           Stock: Endering Shandraf for Commercial Paper (20 Days	Bank rate on new car loans, 48 months/2Yr Govt Bond Spread	monthly	1994M01	Spreads	Level	0.17	1.25	1.22	
IDD spread       unity       197-moil       Spreads       Level       0.01       1.12       1.13         Real Broad Trade-Weighted Exchange Value of the USS       monthly       1994A001       Spreads       Level       0.51       1.12       1.13         Real Broad Trade-Weighted Exchange Value of the USS       monthly       1994A001       Prices       Growth       0.18       1.27       1.17         Witshire 5000 Prices       Growth       0.22       1.24       1.15         Orect gict Nithere Index       monthly       1994A001       Prices       Growth       0.42       1.23       1.29         Orect gict Nithere Index       monthly       1994A001       Prices       Growth       0.40       1.21       1.15         Orect gict Nithere Index       monthly       1994A001       Quantities       Growth       0.40       1.21       1.22         Value of Steek All Savers       monthly       1994A01       Quantities       Growth       0.40       1.23       1.22         Value of Steek All Savers       monthly       1994M01       Quantities       Growth       0.45       1.24       1.22         Value of Steek All Zavers       Savers       Growth       0.45       1.24       1.25       1.2	TED Spread	monthly	1994M01 1004M01	Spreads	Level	0.61	1.09	0.98	
Real Brand Trade-Weighted Exchange Value of the USS       monthly       1994M01       Prices       Growth       0.18       1.27       1.17         Wilshine 5000 Price Indes (Full Cap)       monthly       1994M01       Prices       Growth       -0.52       1.08       1.00         PPI: Crude Pertoleum Domestic Production       monthly       1994M01       Prices       Growth       -0.62       1.14       1.06         Bank Credit: All Commercial Paper (200 Standing): All States       monthly       1994M01       Quantities       Growth       -0.62       1.31       1.22         Value of I Susters       monthly       1994M01       Quantities       Growth       -0.61       1.31       1.22         Value of I Susters       commonity       1994M01       Quantities       Growth       -0.45       1.24       1.22         Value of Susters       Commercial Paper (200 Standing): Table: Credit Klt Instruments       quarterity       1994M01       Quantities       Growth       -0.45       1.24       1.22         Uonesits Norfingi Standards for Commercial Paper (200 Standing): Table: Table: Credit Klt Instruments       quarterity       1994M01       Quantities       Level       0.80       1.13       1.00         SLOS: Banks Tablening Standards for Commereial Paper (200 Standing): Table: Tablenin	1 Month Commercial Paper / Fed Funds Spread	daily	1994M01	Spreads	Level	0.51	1.19	1.34	
Wilshingson         Open Carl des (Full Cap)         daily         1994M01         Prices         Growth         -0.35         1.08         1.00           PPI: Cruck Perkelum Domesite Production         monthly         1994M01         Prices         Growth         -0.62         1.14         1.06           Bank Crodit: All Commercial Banks         monthly         1994M01         Quantities         Growth         -0.62         1.13         1.22           Commercial Pager States         daily         2001M01         Quantities         Growth         -0.60         1.31         1.22           Value of Commercial Pager States         daily         2001M01         Quantities         Growth         -0.00         1.30         1.22           Value of Commercial Pager States         quartery         1994M01         Quantities         Growth         -0.32         1.24         1.23           StOS: Banks Willingness to Large Firms         quartery         1994M01         Quantities         Level         0.89         0.99         0.91           StOS: Banks Willingness to Large Firms         quartery         1994M01         Quantities         Level         0.82         1.02         1.12           StOS: Bank Striphening Lans to Large Firms         quartery         1994M01	Real Broad Trade-Weighted Exchange Value of the US\$	monthly	1994M01	Prices	Growth	0.18	1.27	1.17	
PPI: Crucke Petroleam Domestic Production       monthly       1994M01       Prices       Growth       -0.32       1.24       1.15         CoreLogic National House Price Index       monthly       1994M01       Quantities       Growth       -0.62       1.14       1.06         Bank Credit: All Commercial Paper Issues       monthly       1994M01       Quantities       Growth       -0.62       1.14       1.12         Value of Issuers of Commercial Paper; <i>i80</i> Days       monthly       1994M01       Quantities       Growth       -0.60       1.31       1.22         Money Stock: MZM Zero Maturity       monthly       1994M01       Quantities       Growth       -0.45       1.24       1.23         SLOS: Banks Tightening Loans to Large Firms       quarterly       1994M01       Quantities       Level       0.82       1.04       1.02         SLOS: Banks Tightening Loans to Large Firms       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         SLOS: Banks Tightening Loans to Large Firms       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         SLOS: Tightening Standards for Commercial Real Estate       quarterly       1994M01       Quantities       Level       0.82	Wilshire 5000 Price Index [Full Cap]	daily	1994M01	Prices	Growth	-0.55	1.08	1.00	
CoreLogic National House Price Index         monthly         1994M01         Prices         Growth         -0.62         1.14         1.06           Bank Credit: All Commercial Banks         monthly         1994M01         Quantities         Growth         -0.62         1.31         1.22           Commercial Paper Dustanding: All Issuers         monthly         1994M01         Quantities         Growth         -0.60         1.31         1.22           Value of Commercial Paper (Stopper)         Obays         monthly         2001M01         Quantities         Growth         -0.63         1.24         1.22           Damestic Nonfinancial Sectors: Liabs: Credit MkI Instruments         quarterly         1994M01         Quantities         Level         0.80         0.99         0.91           SLOS: Banks Tightening Loans to Small Firms         quarterly         1994M01         Quantities         Level         0.80         1.13         1.02           SLOS: Banks Tightening Loans to Small Firms         quarterly         1994M01         Quantities         Level         0.82         1.33         1.05           SLOS: Banks Tightening Loans to Small Firms         quarterly         1994M01         Quantities         Level         0.82         1.33         1.13           LOS: Tightening Stopand	PPI: Crude Petroleum Domestic Production	monthly	1994M01	Prices	Growth	-0.32	1.24	1.15	
Bank Credit: All Commercial Banks       monthly       1994M01       Quantities       Growth       -0.60       1.31       1.22         Value of Commercial Paper Issues       daily       2001M01       Quantities       Growth       -0.60       1.31       1.22         Value of Sueres of Commercial Paper Issues       daily       2001M01       Quantities       Growth       -0.60       1.31       1.22         Money Stock: MZM Zero Maturity       monthly       1994M01       Quantities       Growth       -0.45       1.24       1.23         SLOS: Banks Tightening Loans to Large Firms       quarterly       1994M01       Quantities       Level       0.89       0.99       0.91         SLOS: Banks Tightening Standards for Commercial Real Elstate       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         SLOS: Eghtening Standards for Commercial Real Elstate       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         CBOE Market Volatility Index, VIX       daily       1994M01       Quantities       Level       0.82       1.03       1.24         Baseline VAR        nonthly       1994M01       Prices       Level       0.50       1.4       1.24<	CoreLogic National House Price Index	monthly	1994M01	Prices	Growth	-0.62	1.14	1.06	
Commercial Paper Outstanding: All Issuers         monthly         1994M01         Quantities         Growth         -0.60         1.31         1.22           Value of Commercial Paper 1: 80 Days         daily         2001M01         Quantities         Growth         0.45         1.24         1.22           Domesy tock: NZM Zero Maturity         quarterly         1994M01         Quantities         Growth         0.45         1.24         1.22           Domesy tock: Numerical Paper 1: 80 Days         monthly         1994M01         Quantities         Growth         0.45         1.24         1.22           Domesy tock: Numerical Paper 1: 80 Days         monthly         1994M01         Quantities         Growth         0.45         1.24         1.22           Domessiti Nonfinancial Sectors: Labs: Credit Mkt Instruments         quarterly         1994M01         Quantities         Level         0.80         0.99         0.91           SLOS: Bank Krightening Standards for Commercial Real Estate         quarterly         1994M01         Quantities         Level         0.82         1.02         1.12           CBOE Market Volatility Index, VIX         daily         1994M01         Quanterly         1994M01         Quanterly         1.09         2.01           Euro Area         nonthly	Bank Credit: All Commercial Banks	monthly	1994M01	Quantities	Growth	-0.22	1.32	1.29	
Value of Lommercial rapper issues       daily       2001001       Quantities       Growth       -0.0       1.21       1.12         Money Stock: MZM Zero Maturity       monthly       20011W01       Quantities       Growth       0.00       1.30       1.22         Money Stock: MZM Zero Maturity       monthly       1994M01       Quantities       Growth       0.45       1.24       1.23         SLOS: Banks Tightening Loans to Large Firms       quarterly       1994M01       Quantities       Level       0.89       0.99       0.91         SLOS: Banks Tightening Standards for Commercial Real Elstate       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12       1.12         SLOS: Res Mortgages: Net Share, Banks Tightening       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         CBOE Market Volatility Index, VIX       daily       1994M01       Prices       Level       0.82       1.03       1.26         Stoff Telencore       1.07       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02       1.02	Commercial Paper Outstanding: All Issuers	monthly	1994M01	Quantities	Growth	-0.60	1.31	1.22	
Value of Instants With Commercial Fight, 1992 April 1994         Informity 2007/001         Quantities         Growth         0.05         1.24         1.22           Domes Stock With Commercial Rectarge Credit Mkt Instruments         quarterly         1994M01         Quantities         Growth         0.25         1.24         1.23           SLOS: Banks Tightening Loars to Large Firms         quarterly         1994M01         Quantities         Growth         0.28         0.99         0.91           SLOS: Banks Tightening Loars to Small Firms         quarterly         1994M01         Quantities         Level         0.92         0.96         0.93           SLOS: Banks Tightening Loars to Small Firms         quarterly         1994M01         Quantities         Level         0.82         1.02         1.06         1.02           SLOS: Res Mortgages: Net Share, Banks Tightening         quarterly         1994M01         Quantities         Level         0.82         1.02         1.12           CBOE Market Volatility Index, VIX         daily         1994M01         Prices         Level         0.82         1.02         1.02           Excore Area         1.07         1.02         Date         Strasset         1.07         1.02           Straset Not Rourement Benchmark Bond Yield         monthly <td>Value of Commercial Paper Issues</td> <td>dally</td> <td>2001M01</td> <td>Quantities</td> <td>Growth</td> <td>-0.37</td> <td>1.21</td> <td>1.12</td>	Value of Commercial Paper Issues	dally	2001M01	Quantities	Growth	-0.37	1.21	1.12	
Domestic Nonfinancial Sectors: Liabs: Credit Mkt Instruments         quarterly         1994M01         Quantities         Growth         -0.28         1.24         1.23           SLOS: Banks Tightening Loars to Large Firms         quarterly         1994M01         Quantities         Level         0.89         0.99         0.91           SLOS: Banks Tightening Loars to Small Firms         quarterly         1994M01         Quantities         Level         0.80         0.92         0.96         0.93           SLOS: Banks Willingness to Lend to Consumers         quarterly         1994M01         Quantities         Level         0.80         1.13         1.00           SLOS: Tightening Standards for Commercial Real Estate         quarterly         1994M01         Quantities         Level         0.82         1.02         1.12           GBOE Market Volatility Index, VIX         daily         1994M01         Quantities         Level         0.82         1.00         2.01           Encine Standards for Commercial Real Estate           PCI         1.07         1.02         1.09         2.01           Interview 1994M01         Spreads         Level         0.46         1.20         1.08         0.83           Overnight/S month Spread         monthly         19	Money Stock: MZM Zero Maturity	monthly	1994M01	Quantities	Growth	0.00	1.30	1.22	
SLOS: Banks Tightening Loans to Large Firms       quarteriy       1994M01       Quantities       Level       0.89       0.99       0.91         SLOS: Banks Tightening Loans to Small Firms       quarteriy       1994M01       Quantities       Level       0.92       0.96       0.93         SLOS: Banks Tightening Standards for Commercial Real Estate       SLOS: res. Mortgages: Net Share, Banks Tightening       quarteriy       1994M01       Quantities       Level       0.91       1.06       1.02         SLOS: Res. Mortgages: Net Share, Banks Tightening       quarteriy       1994M01       Quantities       Level       0.82       1.02       1.13       1.00         CBOE Market Volatility Index, VIX       AR(RMSE)       1.09       2.01         Euro Area       nonthly       1994M01       Spreads       Level       0.82       1.02       1.02         Baseline VAR       nonthly       1994M01       Spreads       Level       0.46       1.20       1.02         Overnight Spread       monthly       1994M01       Spreads       Level       0.46       1.20       1.08         Overnight Spread       monthly       1994M01       Spreads       Level       0.46       1.12       1.04         Overight/S moth Spread       monthly	Domestic Nonfinancial Sectors: Liabs: Credit Mkt Instruments	quarterly	1994M01	Ouantities	Growth	-0.28	1.24	1.23	
SLOS: Banks Tightening Loans to Smäll Firms       quarterly       1994M01       Quantities       Level       0.92       0.96       0.93         SLOS: Tightening Standards for Comsumers       quarterly       1994M01       Quantities       Level       0.80       1.13       1.00         SLOS: Tightening Standards for Commercial Real Estate       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         GBOE Market Volatility Index, VIX       daily       1994M01       Prices       Level       0.82       1.03       1.36         AR(RMSE)       Image: Standards for Commercial Real Estate       quarterly       1994M01       Prices       Level       0.82       1.03       1.36         Baseline VAR       Image: Standards for Commercial Real Estate       nonthity       1994M01       Spreads       Level       0.82       1.09       2.01         Baseline VAR       Image: Standards for Commercial Real Estate       monthity       1994M01       Spreads       Level       0.60       1.34       1.07       1.02         Baseline VAR       monthity       1994M01       Spreads       Level       0.06       1.13       1.01         10/ Year Government Benchmark Bond Yield       monthity       1994M01       Spread	SLOS: Banks Tightening Loans to Large Firms	quarterly	1994M01	Quantities	Level	0.89	0.99	0.91	
SLOS: Banks Willingness to Lend to Consumers       quarterly       1994M01       Quantities       Level       -0.80       1.13       1.00         SLOS: Tightening Standards for Commercial Real Estate       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         CBOE Market Volatility Index, VIX       daily       1994M01       Prices       Level       0.82       1.02       1.13       1.00         AR(RMSE)       Level       0.82       1.02       1.33       1.36         Baseline VAR       Image: Commercial State       Image: Commercial State <td< td=""><td>SLOS: Banks Tightening Loans to Small Firms</td><td>quarterly</td><td>1994M01</td><td>Quantities</td><td>Level</td><td>0.92</td><td>0.96</td><td>0.93</td></td<>	SLOS: Banks Tightening Loans to Small Firms	quarterly	1994M01	Quantities	Level	0.92	0.96	0.93	
SLOS: Tightening Standards for Commercial Real Estate       quarterly       1994M01       Quantities       Level       0.91       1.06       1.02         SLOS: Res Morragaes:: Net Share, Banks Tightening       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         CBOE Market Volatility Index, VIX       daily       1994M01       Prices       Level       0.82       1.03       1.36         AR(RMSE)       Image: Commercial Real Estate       Image: Commercial Real Estate       Image: Commercial Real Estate       1.09       2.01         Baseline VAR       Image: Commercial Real Estate	SLOS: Banks Willingness to Lend to Consumers	quarterly	1994M01	Quantities	Level	-0.80	1.13	1.00	
SLOS: Res Morragaes: Net Share, Banks Tightening       quarterly       1994M01       Quantities       Level       0.82       1.02       1.12         CBOE Market Volatility Index, VIX       daily       1994M01       Prices       Level       0.82       1.33       1.36         AR(RMSE)       Level       0.82       1.09       2.01         Euro Area       1.07       1.02         Baseline VAR       1.07       1.02         Baseline VAR augmented with:       FCI       0.89       0.85         FO'       0.97 greads       Level       0.46       1.20       1.08         Overnight7 month Spread       monthly       1994M01       Spreads       Level       0.66       1.15       1.01         10 Year Government Benchmark Bond Yield       monthly       1994M01       Spreads       Level       0.66       1.15       1.01         10 Year Governight Spread       monthly       1994M01       Spreads       Level       0.31       1.62       2.53         Secondary Market 10-year Governight Spread       monthly       1994M01       Spreads       Level       0.31       1.62       2.53         3 -month LIBOR/OIS Spread       monthly       1994M01       Spreads       Level <td< td=""><td>SLOS: Tightening Standards for Commercial Real Estate</td><td>quarterly</td><td>1994M01</td><td>Quantities</td><td>Level</td><td>0.91</td><td>1.06</td><td>1.02</td></td<>	SLOS: Tightening Standards for Commercial Real Estate	quarterly	1994M01	Quantities	Level	0.91	1.06	1.02	
AR(RMSE)       1.09       2.01         Euro Area       1.09       2.01         Bascline VAR       1.07       1.02         Bascline VAR       1.07       1.02         FCI       0.89       0.85         Overnight/3 month Spread       monthly       1994M01       Spreads       Level       0.46       1.20       1.08         2 Year Govt Bond/Overnight Spread       monthly       1994M01       Spreads       Level       0.66       1.15       1.01         10 Year Govt Bond/Overnight Spread       monthly       1994M01       Spreads       Level       0.46       1.20       1.08         Secondary Market 10-year Govt Bond /loyr Govt Bond Spread       monthly       1994M01       Spreads       Level       0.46       1.17       1.04         Secondary Market 10-year Govt Bond /loyr Govt Bond Spread       monthly       1994M01       Spreads       Level       0.68       1.25       1.20         19 Morgan Broad Real Effective Exchange Rate Index       monthly       1994M01       Spreads       Level       0.68       1.25       1.20         19 Morgan Broad Real Effective Exchange Rate Index       monthly       1997M12       Spreads       Level       0.61       1.17       1.02	SLOS: Res Mortgages: Net Share, Banks Tightening CBOE Market Volatility Index, VIX	quarterly daily	1994M01 1994M01	Quantities Prices	Level	0.82 0.82	1.02	1.12	
Euro AreaI.071.02Baseline VAR1.071.02Baseline VAR augmented with: FCI0.890.85Pore Government Benchmark Bond Yieldmonthly1994M01SpreadsLevel0.461.201.08Overnight/3 month Spreadmonthly1994M01SpreadsLevel0.061.151.0110 Year Govt Bond/Overnight Spreadmonthly1994M01SpreadsLevel0.061.151.0110 Year Govt Bond/Overnight Spreadmonthly1994M01SpreadsLevel0.431.171.04Secondary Market 10-year Govt Bond /10yr Govt Bond Spreadmonthly1994M01SpreadsLevel0.681.251.20High Yield Bond/Overnight Spreadmonthly1994M01SpreadsLevel0.681.251.20Jensor Broad Real Effective Exchange Rate Indexmonthly1994M01SpreadsLevel0.611.171.02Burgean Free Market Price: Brent Crude Oildaily1994M01PricesGrowth0.440.930.85Burgean Free Market Price: Brent Crude Oildaily1994M01PricesGrowth-0.621.110.94Nonfinancial Corporations: Outstanding Debtquarterly1997M02QuantitiesGrowth-0.621.110.94Money Supply: M3monthly1994M01QuantitiesGrowth-0.621.110.94Money Supply: M3monthly1997M02QuantitiesGrowth-0.621.11 <t< td=""><td>AR(RMSE)</td><td></td><td></td><td></td><td></td><td></td><td>1.09</td><td>2.01</td></t<>	AR(RMSE)						1.09	2.01	
Baseline VAR         1.07         1.02           Baseline VAR augmented with:         0.89         0.85           FCI         0.89         0.85           10-Year Government Benchmark Bond Yield         monthly         1994M01         Spreads         Level         0.46         1.20         1.08           Overnight/3 month Spread         monthly         1994M01         Spreads         Level         0.05         1.34         1.24           2 Year Govt Bond/Overnight Spread         monthly         1994M01         Spreads         Level         0.43         1.17         1.04           Secondary Market 10-year Govt Bond /10yr Govt Bond Spread         monthly         1994M01         Spreads         Level         0.43         1.17         1.04           Secondary Market 10-year Govt Bond /10yr Govt Bond Spread         monthly         1994M01         Spreads         Level         0.31         1.62         2.53           3-month LIBOR/OIS Spread         monthly         1994M01         Spreads         Level         0.68         1.25         1.20           PI Morgan Broad Real Effective Exchange Rate Index         monthly         1994M01         Prices         Growth         0.05         1.17         1.02           EURO STOXX 50 Price Index: Based in Euro	Euro Area								
Baseline VAR augmented with:         0.89         0.85           FCI         0.94         0.94         0.994         0.97         0.99         0.85           10-Year Government Benchmark Bond Yield         monthly         1994M01         Spreads         Level         0.46         1.20         1.08           Overnight/3 month Spread         monthly         1994M01         Spreads         Level         -0.50         1.34         1.24           2 Year Govt Bond/Overnight Spread         monthly         1994M01         Spreads         Level         0.06         1.15         1.01           10 Year Govt Bond/Overnight Spread         monthly         1994M01         Spreads         Level         0.43         1.17         1.04           Secondary Market 10-year Govt Bond /10yr Govt Bond Spread         monthly         1994M01         Spreads         Level         0.68         1.25         1.20           J Morgan Broad Real Effective Exchange Rate Index         monthly         1997M12         Spreads         Level         0.91         1.05         0.90           JP Morgan Broad Real Effective Exchange Rate Index         monthly         1994M01         Prices         Growth         -0.44         0.93         0.85           European Free Market Price: Brent Crude Oil <td>Baseline VAR</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.07</td> <td>1.02</td>	Baseline VAR						1.07	1.02	
FCI0.890.85 $10-Year Government Benchmark Bond Yieldmonthly1994M01SpreadsLevel0.461.201.080vernight/3 month Spreadmonthly1994M01SpreadsLevel-0.501.341.242 Year Govt Bond/Overnight Spreadmonthly1994M01SpreadsLevel0.061.151.0110 Year Govt Bond/Overnight Spreadmonthly1994M01SpreadsLevel0.431.171.04Secondary Market 10-year Govt Bond /10yr Govt Bond Spreadmonthly1994M01SpreadsLevel0.681.251.203-month LIBOR/OIS Spreadmonthly1994M01SpreadsLevel0.681.251.20High Yield Bond/Overnight Spreadmonthly1999M01SpreadsLevel0.681.251.20JP Morgan Broad Real Effective Exchange Rate Indexmonthly1994M01PricesGrowth0.051.171.02EURO STOXX 50 Price Index: Based in Eurodaily1994M01PricesGrowth-0.271.000.90Money Supply: Credit to EA Resmonthly1994M01PricesGrowth-0.621.110.94Money Supply: M3monthly1994M01QuantitiesGrowth-0.621.110.94Money Supply: M3monthly1994M01QuantitiesGrowth-0.621.110.99Money Supply: M3monthly1994M01QuantitiesGrowth-0.621.110.99SLOS:$	Baseline VAR augmented with:								
10-Year Government Benchmark Bond Yield       monthly       1994M01       Spreads       Level       0.46       1.20       1.08         Overnight/3 month Spread       monthly       1994M01       Spreads       Level       -0.50       1.34       1.24         2 Year Govt Bond/Overnight Spread       monthly       1994M01       Spreads       Level       0.06       1.15       1.01         10 Year Govt Bond/Overnight Spread       monthly       1994M01       Spreads       Level       0.43       1.17       1.04         Secondary Market 10-year Govt Bond /10yr Govt Bond Spread       monthly       1994M01       Spreads       Level       -0.31       1.62       2.53         3-month LIBOR/OIS Spread       monthly       1994M01       Spreads       Level       -0.31       1.62       2.53         3-month LIBOR/OIS Spread       monthly       1999M01       Spreads       Level       0.91       1.05       0.90         JP Morgan Broad Real Effective Exchange Rate Index       monthly       1994M01       Prices       Growth       0.05       1.17       1.02         EUROPan Free Market Price: Brent Crude Oil       daily       1994M01       Prices       Growth       -0.44       0.93       0.85         Mons Supply: Credit t	FCI						0.89	0.85	
Overnight/3 month Spread         monthly         1994M01         Spreads         Level         -0.50         1.34         1.24           2 Year Govt Bond/Overnight Spread         monthly         1994M01         Spreads         Level         0.06         1.15         1.01           10 Year Govt Bond/Overnight Spread         monthly         1994M01         Spreads         Level         0.43         1.17         1.04           Secondary Market 10-year Govt Bond /10yr Govt Bond Spread         monthly         1994M01         Spreads         Level         -0.31         1.62         2.53           3-month LIBOR/OIS Spread         daily         1999M01         Spreads         Level         0.68         1.25         1.20           JP Morgan Broad Real Effective Exchange Rate Index         monthly         1994M01         Prices         Growth         -0.44         0.93         0.85           European Free Market Price: Brent Crude Oil         daily         1994M01         Prices         Growth         -0.42         1.01         0.94           Nonfinancial Corporations: Outstanding Debt         quarterly         1999M01         Quantities         Growth         -0.42         1.07         0.91           Money Supply: Credit to EA Res         monthly         1994M01         Qu	10-Year Government Benchmark Bond Yield	monthly	1994M01	Spreads	Level	0.46	1.20	1.08	
2 Year Govt Bond/Overnight Spread       monthly       1994M01       Spreads       Level       0.06       1.15       1.01         10 Year Govt Bond/Overnight Spread       monthly       1994M01       Spreads       Level       0.43       1.17       1.04         Secondary Market 10-year Govt Bond /10yr Govt Bond Spread       monthly       1994M01       Spreads       Level       0.43       1.17       1.04         Secondary Market 10-year Govt Bond /10yr Govt Bond Spread       monthly       1994M01       Spreads       Level       0.68       1.25       1.20         High Yield Bond/Overnight Spread       monthly       1997M12       Spreads       Level       0.91       1.05       0.90         JP Morgan Broad Real Effective Exchange Rate Index       monthly       1994M01       Prices       Growth       0.05       1.17       1.02         EURO STOXX 50 Price Index: Based in Euro       daily       1994M01       Prices       Growth       -0.44       0.93       0.85         European Free Market Price: Brent Crude Oil       daily       1994M01       Prices       Growth       -0.62       1.11       0.94         Nonfinancial Corporations: Outstanding Debt       quarterly       1999M01       Quantities       Growth       -0.34       1.21	Overnight/3 month Spread	monthly	1994M01	Spreads	Level	-0.50	1.34	1.24	
10rear Govt Bond/Overnight Spreadinonthily1994M01SpreadsLevel0.431.171.04Secondary Market I0-year Govt Bond /10yr Govt Bond Spreadmonthily1994M01SpreadsLevel0.311.622.533-month LIBOR/OIS Spreaddaily1999M01SpreadsLevel0.681.251.20High Yield Bond/Overnight Spreadmonthily1994M01PricesGrowth0.051.171.02EURO STOXX 50 Price Index: Based in Eurodaily1994M01PricesGrowth-0.440.930.85European Free Market Price: Brent Crude Oildaily1994M01PricesGrowth-0.621.110.94Money Supply: Credit to EA Resmonthly1994M01QuantitiesGrowth-0.621.110.94Nonfinancial Corporations: Outstanding Debtquarterly1999M01QuantitiesGrowth-0.341.211.09Morey Supply: M3monthly1994M01QuantitiesGrowth-0.421.070.91Euro Area: Market Capitalizationmonthly2001M01QuantitiesGrowth-0.570.940.86SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesLevel0.790.920.84AR(RMSE)Loss Che and Stafe Cos Past 3Mquarterly2003M01QuantitiesLevel0.790.920.84	2 Year Govt Bond/Overnight Spread	monthly	1994M01	Spreads	Level	0.06	1.15	1.01	
Secondary Market DependenceInformity1994/M01SpreadsLevel-0.511.022.533-month LIBOR/OIS Spreaddaily1999/M01SpreadsLevel-0.511.022.53High Yield Bond/Overnight Spreadmonthly1997/M12SpreadsLevel0.681.251.20High Yield Bond/Overnight Spreadmonthly1997/M12SpreadsLevel0.911.050.90JP Morgan Broad Real Effective Exchange Rate Indexmonthly1994/M01PricesGrowth-0.440.930.85EURO STOXX 50 Price Index: Based in Eurodaily1994/M01PricesGrowth-0.271.000.90Money Supply: Credit to EA Resmonthly1997/M09QuantitiesGrowth-0.621.110.94Money Supply: Credit to EA Resmonthly1997/M07QuantitiesGrowth-0.621.110.94Money Supply: M3monthly1997/M07QuantitiesGrowth-0.341.211.09Money Supply: M3monthly2001/M07QuantitiesGrowth-0.421.070.91SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003/M01QuantitiesLevel0.720.920.84AR(RMSE)Level0.720.920.84Level0.720.930.84	10 Year Govt Bond/Overnight Spread	monthly	1994M01	Spreads	Level	0.43	1.17	1.04	
Sindian Endotro Opticaland y1973/R01SpreadsLevel0.051.050.90JP Morgan Broad Real Effective Exchange Rate Indexmonthly1997/M12SpreadsLevel0.911.050.90JP Morgan Broad Real Effective Exchange Rate Indexmonthly1994/M01PricesGrowth0.051.171.02EURO STOXX 50 Price Index: Based in Eurodaily1994/M01PricesGrowth-0.440.930.85European Free Market Price: Brent Crude Oildaily1994/M01PricesGrowth-0.271.000.90Money Supply: Credit to EA Resmonthly1997/M09QuantitiesGrowth-0.621.110.94Nonfinancial Corporations: Outstanding Debtquarterly1999/M01QuantitiesGrowth-0.341.211.09MFIs ex ES: Debt Securities Issued: Euro Sharequarterly1997/M07QuantitiesGrowth-0.421.070.91Euro Area: Market Capitalizationmonthly1994/M01QuantitiesGrowth-0.570.940.86SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesLevel0.720.930.84AR(RMSE)Level0.720.790.920.841.192.141.192.14	3-month LIBOR/OIS Spread	daily	1994M01	Spreads	Level	-0.51	1.02	2.55	
Ingle Index DistrigationIndex Infy197 MireDifferenceDiff	High Yield Bond/Overnight Spread	monthly	1997M12	Spreads	Level	0.03	1.25	0.90	
EURO STOXX 50 Price Index: Based in Eurodaily1994M01PricesGrowth-0.440.930.85European Free Market Price: Brent Crude Oildaily1994M01PricesGrowth-0.271.000.90Money Supply: Credit to EA Resmonthly1997M09QuantitiesGrowth-0.621.110.94Nonfinancial Corporations: Outstanding Debtquarterly1999M01QuantitiesGrowth-0.621.110.99MFIs ex ES: Debt Securities Issued: Euro Sharequarterly1997M07QuantitiesGrowth-0.421.070.91Buro Area: Market Capitalizationmonthly1994M01QuantitiesGrowth-0.421.070.91SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesLevel0.790.920.84AR(RMSE)Level0.720.790.920.841.192.14	JP Morgan Broad Real Effective Exchange Rate Index	monthly	1994M01	Prices	Growth	0.05	1.17	1.02	
European Free Market Price: Brent Crude Oildaily1994M01PricesGrowth $-0.27$ $1.00$ $0.90$ Money Supply: Credit to EA Resmonthly1997M09QuantitiesGrowth $-0.62$ $1.11$ $0.94$ Nonfinancial Corporations: Outstanding Debtquarterly1999M01QuantitiesGrowth $-0.62$ $1.11$ $0.94$ MFIs ex ES: Debt Securities Issued: Euro Sharequarterly1999M01QuantitiesGrowth $-0.34$ $1.21$ $1.09$ Money Supply: M3monthly1994M01QuantitiesGrowth $-0.42$ $1.07$ $0.91$ Euro Area: Market Capitalizationmonthly2001M01QuantitiesGrowth $-0.57$ $0.94$ $0.86$ SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesLevel $0.72$ $0.93$ $0.84$ AR(RMSE)	EURO STOXX 50 Price Index: Based in Euro	daily	1994M01	Prices	Growth	-0.44	0.93	0.85	
Money Supply: Credit to EA Resmonthly1997M09QuantitiesGrowth-0.621.110.94Nonfinancial Corporations: Outstanding Debtquarterly1999M01QuantitiesGrowth-0.341.211.09MFIs ex ES: Debt Securities Issued: Euro Sharequarterly1997M07QuantitiesLevel0.410.990.88Money Supply: M3monthly1994M01QuantitiesGrowth-0.421.070.91Euro Area: Market Capitalizationmonthly2001M01QuantitiesGrowth-0.570.940.86SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesLevel0.790.920.84AR(RMSE)	European Free Market Price: Brent Crude Oil	daily	1994M01	Prices	Growth	-0.27	1.00	0.90	
Nonfinancial Corporations: Outstanding Debtquarterly1999M01QuantitiesGrowth-0.341.211.09MFIs ex ES: Debt Securities Issued: Euro Sharequarterly1997M07QuantitiesLevel0.410.990.88Money Supply: M3monthly1994M01QuantitiesGrowth-0.421.070.91Euro Area: Market Capitalizationmonthly2001M01QuantitiesGrowth-0.421.070.94SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesLevel0.790.920.84Quarterly2003M01QuantitiesLevel0.720.930.84AR(RMSE)1.192.14	Money Supply: Credit to EA Res	monthly	1997M09	Quantities	Growth	-0.62	1.11	0.94	
MPTS ex ES: Debt Securities Issued: Euro Snarequarterly199/M0/QuantitiesLevel0.410.590.88Money Supply: M3monthly199/M0/QuantitiesGrowth-0.421.070.91Euro Area: Market Capitalizationmonthly2001M01QuantitiesGrowth-0.421.070.91SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesEvel0.790.920.84SLOS: Chg in Credit Stds for Bus Lns to Large Cos Past 3Mquarterly2003M01QuantitiesLevel0.720.930.84AR(RMSE) <td between="" column="" sec<="" second="" td="" the=""><td>Nontinancial Corporations: Outstanding Debt</td><td>quarterly</td><td>1999M01</td><td>Quantities</td><td>Growth</td><td>-0.34</td><td>1.21</td><td>1.09</td></td>	<td>Nontinancial Corporations: Outstanding Debt</td> <td>quarterly</td> <td>1999M01</td> <td>Quantities</td> <td>Growth</td> <td>-0.34</td> <td>1.21</td> <td>1.09</td>	Nontinancial Corporations: Outstanding Debt	quarterly	1999M01	Quantities	Growth	-0.34	1.21	1.09
Infolutity1994/W01QuantitiesGrowth-0.421.070.91Euro Area: Market Capitalizationmonthly2001M01QuantitiesGrowth-0.570.940.86SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos, Past 3Mquarterly2003M01QuantitiesLevel0.790.920.84SLOS: Chg in Credit Stds for Bus Lns to Large Cos Past 3Mquarterly2003M01QuantitiesLevel0.720.930.84AR(RMSE)1.192.14	MFIS ex ES: Debt Securities Issued: Euro Share	quarterly	1997/M07 1004M01	Quantities	Level	0.41	0.99	0.88	
Loss InderControlQuantitiesControl<	Furo Area: Market Capitalization	monthly	2001M01	Quantities	Growth	-0.42	0.94	0.91	
SLOS: Chg in Credit Stds for Bus Lns to Large Cos Past 3M     quarterly     2003M01     Quantities     Level     0.72     0.93     0.84       AR(RMSE)     1.19     2.14	SLOS: Chg in Credit Stds for Bus Lns to Med/Sm Cos. Past 3M	quarterly	2003M01	Ouantities	Level	0.79	0.92	0.84	
AR(RMSE) 1.19 2.14	SLOS: Chg in Credit Stds for Bus Lns to Large Cos Past 3M	quarterly	2003M01	Quantities	Level	0.72	0.93	0.84	
	AR(RMSE)						1.19	2.14	

# Table 1. Data Description and Forecasting Performance

All raw data were sourced from Haver Analytics.



Figure 1. FCIs and Contributions by Class of Indicator (positive = tightening)





Figure 2. FCIs in Real Time

