

Jens Thomsen: European bond markets before and after the euro

Speech by Mr Jens Thomsen, Member of the Board of Governors of the National Bank of Denmark and Chairman of the EFC-subcommittee on EU Government Bonds and Bills Markets, at the European Government Bond Summit, Brussels, 25 October 2006.

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My remarks will focus on reflections related to the integration process that the European bond markets has experienced in the post-EMU era. In particular, I will highlight the successful evolution of European government bond markets following the introduction of the common currency.

The establishment of the European Monetary Union on January 1, 1999, paved the way for a more integrated European bond market. In the pre-EMU era, different euro area countries' government bond yields differed substantially. As an example, yield spreads against Germany in the 10-year government bond segment ranged up to 700 bp in the 1990's (see slide 1). Yield spreads were however expected to decline along with the introduction of the euro primarily due to the elimination of exchange rate risk.

Prior to 1999, attempts were made to anticipate the magnitude of the post-1999 yield spreads between EMU member states. Sparsely evidence from other currency areas provided some insight in relation to such anticipations. The provincial bond market in Canada was one such candidate area to use for comparison as the Canadian provinces had some similar characteristics to the forthcoming EMU countries, including no explicit rules for mutual or federal bail out. The spreads between bonds issued by different Canadian provinces and Canadian government bonds were much lower than euro area spreads prior to the euro ranging "only" up to 60 bp. Notwithstanding declining spreads, the Canadian evidence indicated that the euro area spreads would not completely disappear (see slide 2).¹

Considering the post-1999 era in retrospect, the euro area spreads have indeed declined significantly since the introduction of the euro (see slide 3). In fact, euro area spreads are small today and actually lower than the ones observed between Canadian provinces. This may be due to a higher level of liquidity in the EMU countries' issues as well as somewhat better credit ratings among EMU countries. Regarding the credit ratings, they may be influenced by the generally larger tax bases of central governments in addition to lower labour mobility in Europe which causes tax bases to be more secure.

The convergences of yields among euro area countries have not yet been observed as markedly for the 10 new EU member states even though ERM2 members clearly have experienced lower spreads (see slide 4, Lithuania and Slovakia are ERM2 members).

The large decline in the euro area yield spreads reflects the increasing integration of European fixed income market that has taken place since 1999. The market integration process can be viewed from four dimensions.

Firstly, the fact that the European government bond market consists of many issuers contrary to the corresponding US market implies that the European market is more divided per se. However, the development of a comprehensive network of electronic trading platforms has mitigated this issue, i.e. the predominant part of the EMU issuers is today connected by the same system (see slide 5).

Secondly, the establishment of primary dealer networks in all EMU countries has, among other things (e.g. securing liquidity), enhanced the integration of the bond market. A quick glance at various EMU countries' lists of official primary dealers, shows that a large part of primary dealers are present in almost every government bond market, indicating a high level of market integration across countries (see slide 6).

Thirdly, a harmonization of market conventions as well as national tax treatments has occurred since the introduction of the euro. E.g. conventions in government bonds and T-bills markets concerning settlement date, definition of business days and day count basis, coupon frequency and coupon calculation methods are almost completely harmonized across euro area countries today (see slide 7

¹ See "Yield Differentials in the Future EMU", *Monetary Review*, May 1997, *Danmarks Nationalbank*, for a pre-1999 analysis of expected EMU spreads based on evidence from Canadian provinces.

and 8). This has made the European fixed income market more transparent and accessible for international investors.

Fourthly, product development has also contributed to the market integration process. For example the euro-denominated interest rate swap (IRS) market has grown to become the largest in the world in absolute terms. In relative terms, the euro-denominated IRS market is today about twice the size of the USD-denominated IRS market (see slide 9). As a result of the very liquid IRS market, fixed income instruments across the euro area are today typically priced using the standardized euro swap curve in combination with yield curves stemming from heterogeneous government bonds. Consequently, the euro-denominated IRS market has obtained a similar benchmark role as the one held by US treasuries in the USD-denominated market, with respect to the pricing of fixed income instruments. The emergence of a liquid swap curve has thereby served to further alleviate the issue of fragmentation in the European fixed income.

The small yield spreads that still exist today between EMU member states are primarily attributable to differences in liquidity and credit risk between issuers. Consequently, the EMU era has drawn more attention to these two factors. Regarding credit risk, increased focus may have served to increase the disciplinary effect of the financial markets on policy makers. An inspection of the relationship between the development of national debt-to-GDP ratios and sovereign yield spreads relative to Germany 1999 – 2006, indicates that the improved creditworthiness of the EMU member states since 1999 can explain some of the decline in the spreads (see slide 10). However, credit risk is only one of the factors that determine the size of the spreads and should therefore not be viewed in isolation.

In order to examine the role of respectively credit risk and liquidity embedded in the current yield spreads across EMU countries, one may use prices on credit default swaps (CDS) to split up the yield spread between credit risk and liquidity. The fact that the price of a CDS approximately equals the credit risk premium of the underlying bond makes this possible.

Under the assumption that the yield spread between the EMU-members purely can be explained by differences in credit risk and liquidity, the liquidity risk premium may be defined as the residual of the yield spread after deducting the credit risk premium (see slide 11). The calculation shows that the yield spreads today only are affected noticeably by credit risk for Greece, Italy and Portugal, whereas liquidity primarily plays a role for the smaller issuers.

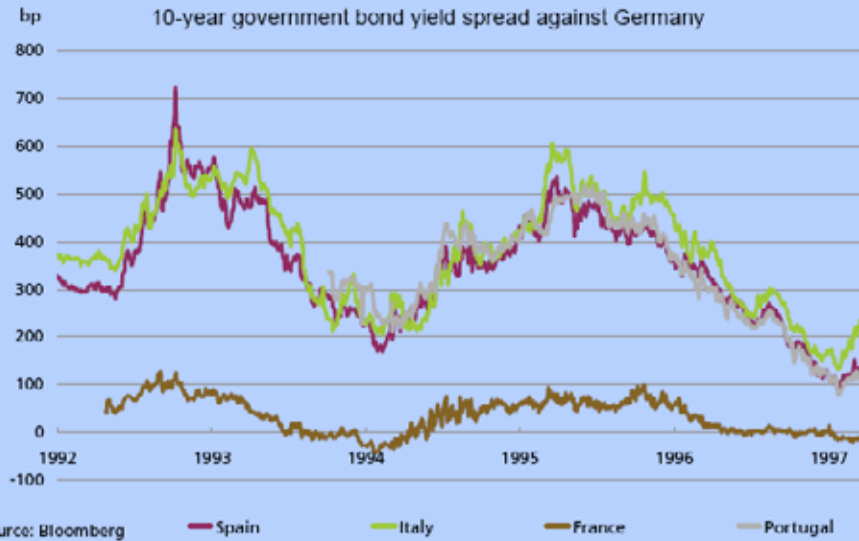
In addition to the government bond market, the introduction of the euro also formed expectations concerning a development of the euro-denominated corporate bond market. Though this market has increased fairly much in terms of total outstanding in the post-1999 period, the corporate bond market continues to account for a small fraction of the euro-zone debt market (see slide 12). Corporate finance traditions in Europe favouring the banking model may be one explanation for this. It should be recognised that well developed mortgage markets make a strong contribution to debt security markets in a number of European countries.

Nevertheless, an increasing number of entities outside the euro-zone issue bonds denominated in euro. Indeed, the role of the euro in the international debt security markets has increased substantially since 1999. For broadly defined international debt securities (i.e. securities either issued outside the respective currency area or issued within the currency area and targeted at the international financial markets), the euro account for a global share of 47 percent compared with a share of 37 percent for the US dollar. The euro's share has risen by 18 percentage points since January 1999. The high share of the international market compared to the size of the national segment reflects the high relative importance of the international financial markets for the euro (see slide 13).

The establishment of well functioning European government bond markets is an important contribution to the European single market supporting an efficient allocation of resources and economic growth. The contribution from the government bond market in the euro area should therefore not be underestimated.

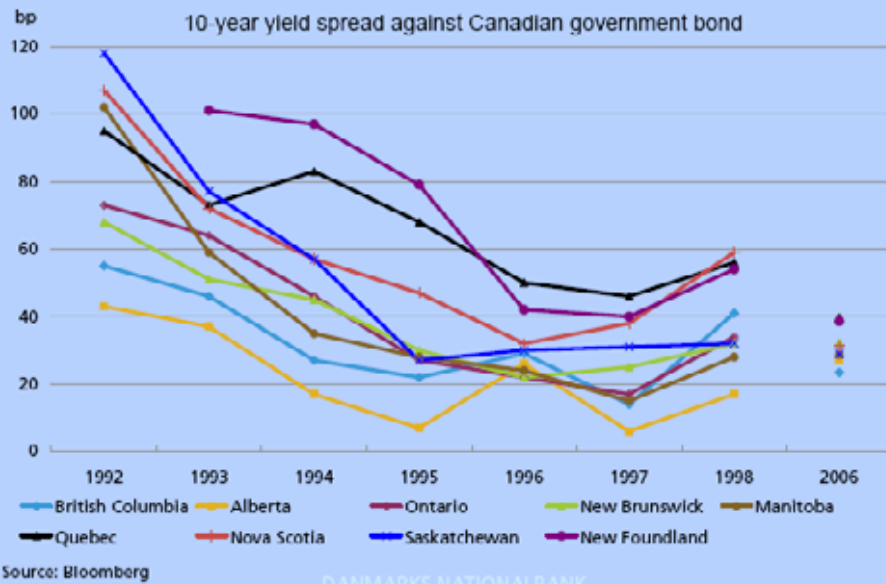
YIELD SPREADS IN EUROPE BEFORE INTRODUCTION OF THE EURO

1



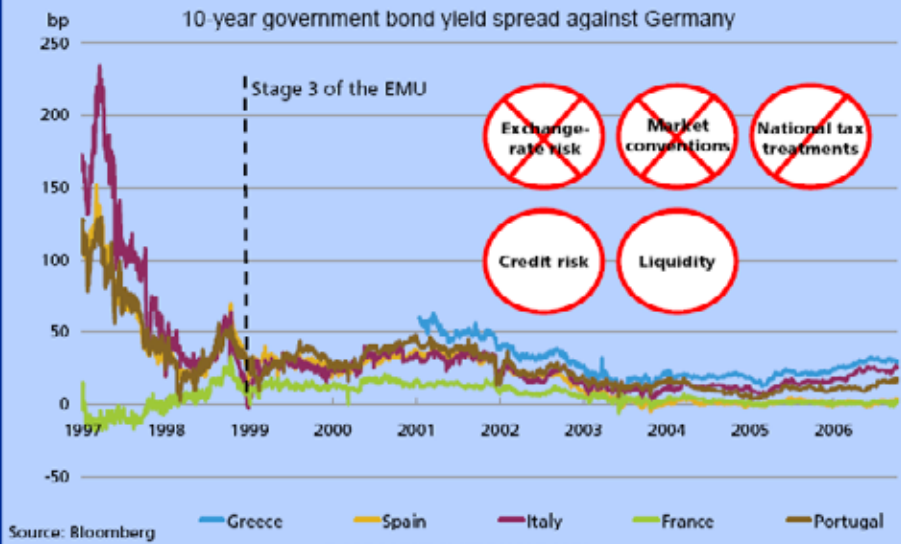
YIELD SPREADS IN CANADA - A COMPARISON

2

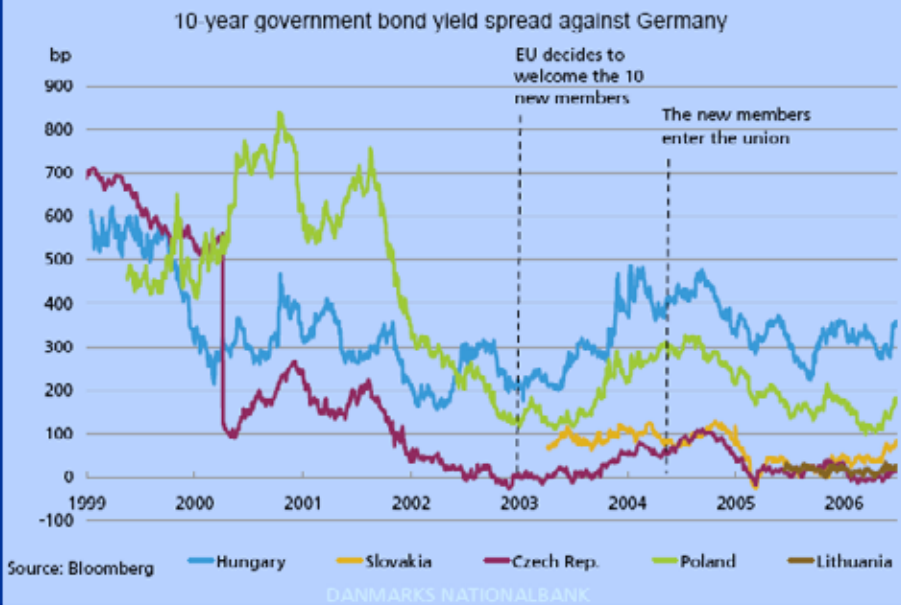




YIELD SPREADS - TIGHTENING SINCE THE INTRODUCTION OF THE EURO 3

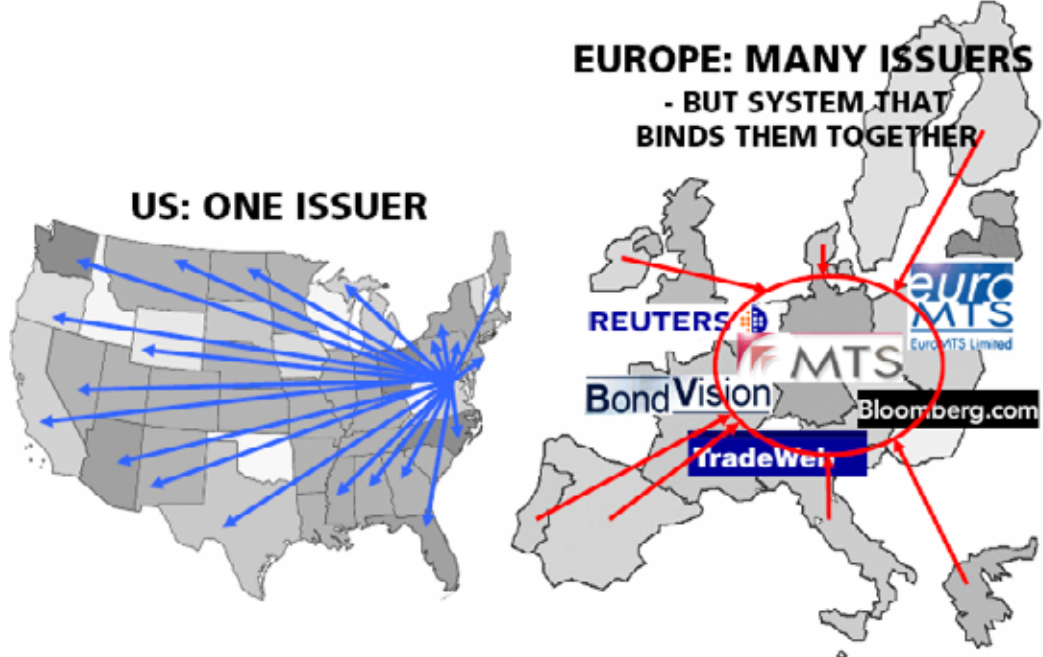


YIELD SPREADS – FOR NEW EU-MEMBERS 4



MARKET INTEGRATION

5



MARKET INTEGRATION - FOCUS ON MARKET PARTICIPATION

6

Selected financial institutions with primary dealer status

Financial Institution	AUS	BEL	DEN	FIN	FRA	GER*	GRE	IRE	ITA	NL	POR	SPA
ABN AMRO												
Barclays Bank												
BNP Paribas												
Calyon												
Citigroup												
Credit Suisse Securities												
Deutsche Bank AG												
Dresdner Bank AG												
Goldman Sachs												
HSBC												
JP Morgan												
Morgan Stanley												
Société Générale												

■ = primary dealer status

*Market participants, no official Primary Dealers.

Source: MTS

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MARKET INTEGRATION - CONVENTIONS (BONDS) 7

Issuer	Settlement Date		Day count basis		Coupon frequency	
	1999	2006	1999	2006	1999	2006
Austria	T+3	T+3	30/360	Act/Act	Annual	Annual
Belgium	T+3	T+3	30/360	Act/Act	Annual	Annual
Denmark	T+3	T+3	30/360	Act/Act	Mostly Annual	Annual
Finland	T+3	T+3	30/360	Act/Act	Annual	Annual
France	T+3	T+3	Act/Act	Act/Act	Annual	Annual
Germany	T+2	T+3	30/360	Act/Act	Annual	Annual
Greece	T+2	T+3	Act/365 and 30/360	Act/Act	Annual	Annual
Ireland	T+1	T+3	Act/365, 30/360 and Act/Act	Act/Act	Mostly Annual	Annual
Italy	T+3	T+3	30/360	Act/Act	Semi-annual	Semi-annual
Netherlands	T+3	T+3	30/360	Act/Act	Annual	Annual
Portugal	T+3	T+3	Act/Act and 30/360	Act/Act	Annual and semi-annual	Annual
Spain	T+3	T+3	Act/365	Act/Act	Annual	Annual

Source: MTS + European Commission

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MARKET INTEGRATION – CONVENTIONS (T-BILLS) 8

Issuer	Settlement Date		Day count basis	
	1999	2006	1999	2006
Austria	T+2	T+2	Act/360	Act/360
Belgium	T+2	T+2	Act/365	Act/360
Denmark	T+2	T+2	Act/360	Act/360
Finland	T+2	T+2	Act/365	Act/360
France	T+1	T+1	Act/360	Act/360
Germany	T+2	T+2	Act/360	Act/360
Greece	T+2	T+3	30/360	Act/360
Ireland	T+0 or T+1	T+2	Act/365	Act/360
Italy	T+2	T+2	Act/365	Act/360
Netherlands	usually T+2	T+2	Act/360	Act/360
Portugal	T+2	T+2	Act/365	Act/360
Spain	T+1	T+2	Act/360	Act/360

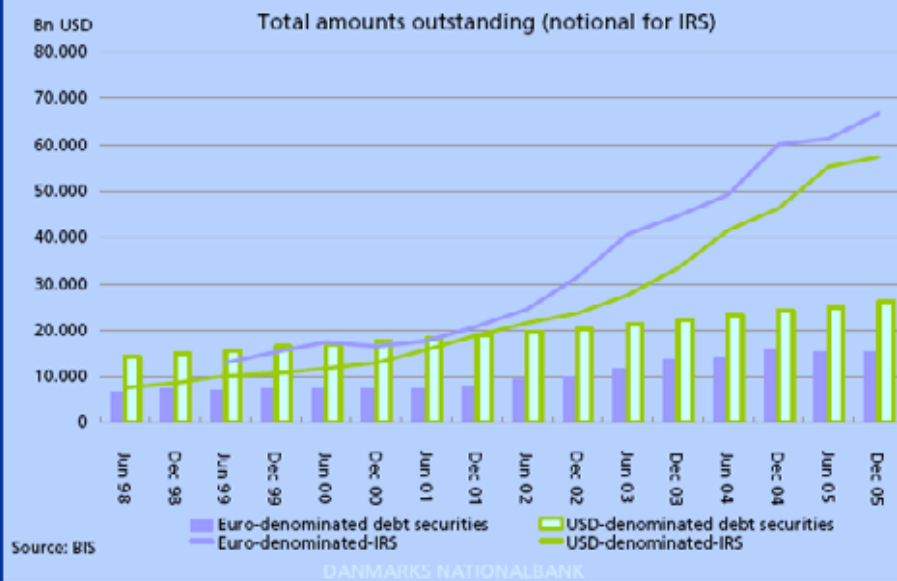
Source: MTS + European Commission

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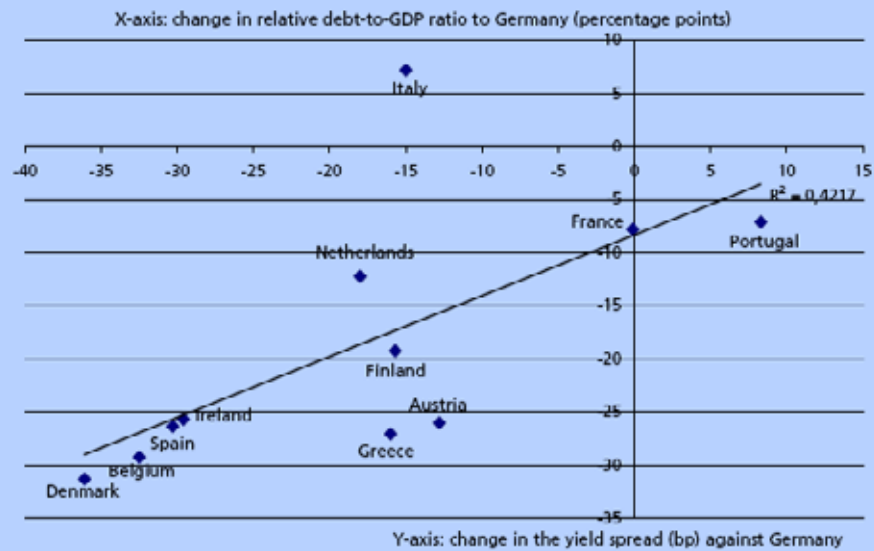
MARKET INTEGRATION - PRODUCT DEVELOPMENT

9



YIELD SPREADS / CREDIT RISK, 1999-2006

10



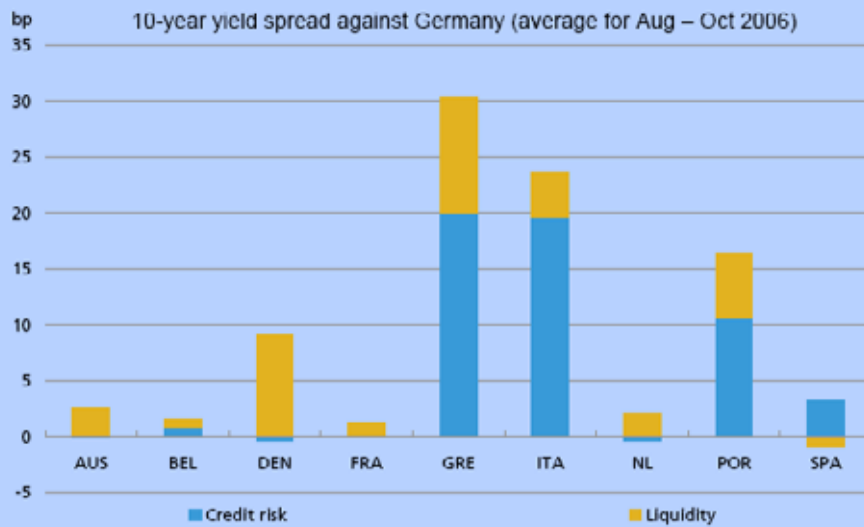
Note: X-axis: Difference between the change in the debt-to-GDP ratio and the change in Germany's debt-to-GDP ratio between 1999 and 2006 (figures for 2006 refer to the European Commission's spring 2006 economic forecast). Y-axis: Change in the yield spread against German 10-year government bond between Jan. 1999 and Sep. 2006 (monthly averages). Source: Bloomberg + European Commission

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YIELD SPREADS - CREDIT RISK AND LIQUIDITY

11



Note: The maturity of the respective CDS is approximately equal to that of the underlying government bond. Finland and Ireland not available.
Source: Bloomberg

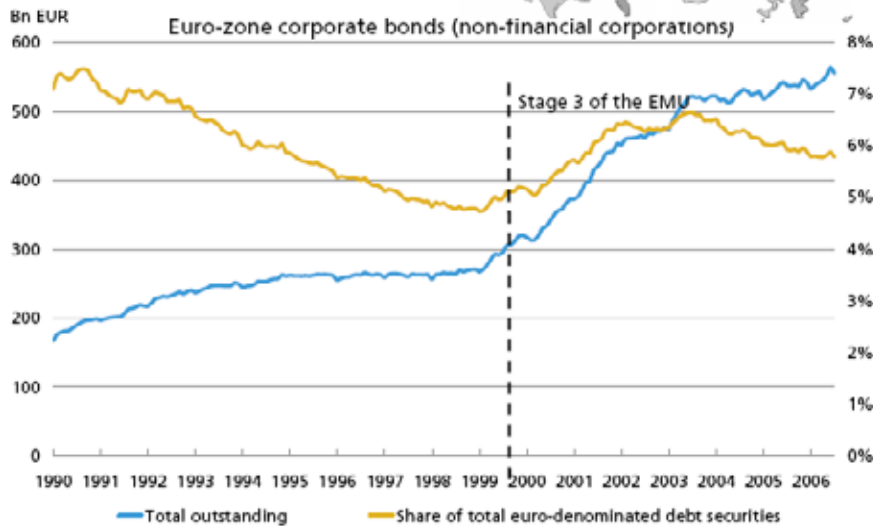
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CORPORATE BONDS



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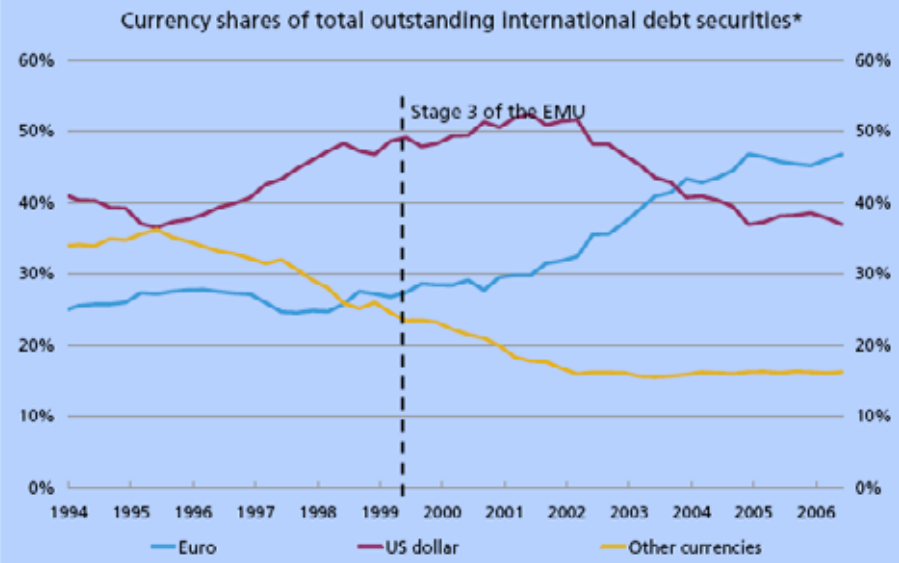


Note: The share of corporate bonds in the US market equals 20 % (source: The Federal Reserve Board).
Source: ECB

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THE INTERNATIONAL ROLE OF THE EURO 13



*Defined as debt securities (bonds and notes) issued by non-residents plus domestic issues targeting international markets
Source: BIS

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