A. Introduction

1. Motivation

One issue for currency areas such as the European Monetary Union (EMU) is that not necessarily one size fits all, i.e. the interest rate setting of the central bank cannot consider different states of the economy in different member countries. A country in recession would prefer low interest rates to stimulate the economy; whereas, for a country in boom, low interest rates might cause inflation.

As Mundell (1961) – in his fundamental work – puts it, an optimal currency area is an economic unit that is independent from national borders. Only if all countries taking part in the monetary union behave as an economic unit and react similar to asymmetric shocks can a common monetary policy react. Otherwise, contradictory signals for the interest setting might be a consequence and might raise costs for being a member of a monetary union. Most economists agree that, so far, the countries participating in the EMU do not have synchronised business cycles (see e.g. Artis, 2003; Gros and Hefeker, 2004). To reduce the costs of giving away power over monetary policy, a business cycle convergence of the participating countries would lead to less ambiguous indicators for monetary policy decisions.

But which factors contribute to business cycle convergence? Besides well known factors such as trade integration or factor mobility, one factor could be the synchronized consumption of private households in EMU member countries. Synchronized consumption can in turn be influenced by similar private (financial) investment strategies, leading to similar returns and consumption out of financial wealth. Financial wealth of private households has grown substantially in recent years. In Western Europe, financial wealth amounts for over 150 % of GDP, and the estimation of the annual growth rate of financial wealth is 4.2 % (2002-2006) (Uni Credit Group, 2007). Further growth is expected.

The growing importance of financial wealth implies that investment decisions have a growing influence on income, the standard of living – and therefore also on consumption. Investment strategies are usually assumed to be rational,

1 For a start I will assume rationality of investment decisions although it is known that investors do not necessarily behave rational.
meaning investors would reach similar investment decisions. A plausible “common” investment strategy could be the International Asset Pricing Model (IAPM), which is based on the Capital Asset Pricing Model (CAPM) by Sharpe (1964). According to this model, a portfolio should reflect the relative world market weights of all countries to achieve the best risk-return-ratio (De Santis and Gérard, 1997, p. 1881 et seqq.). This model has recently gained much attention in popular finance media which addressed the widely observed phenomenon of home bias. Basically, home bias means investing mainly in one’s home country instead of benefiting from international diversification, e.g. in Germany, about 83% of the Germans invest in German companies although financial literature has been recommending diversification over different countries, asset categories, etc. for years (Zydra, 2008). Interestingly at the same time, the Germans became more risk-averse and were selling their bonds and shares in the aftermath of the financial crisis (Schroers, 2008) – a contradiction to the ideas of the mentioned financial investment literature of diversification. This development can only lead to the conclusion that investment behaviour is not necessarily rational. Opposed to these trends, on a European basis, a declining home bias can be observed in recent years even after the crisis.

Home bias is a phenomenon not only discussed in the financial literature but also on a macroeconomic level, as well under the label of international risk sharing. International risk sharing means that individuals hold claims on the output of other countries to diversify their risks and achieve consumption smoothing. Consumption or income smoothing can either be achieved ex ante (by holding claims on the output of other countries over financial markets) or ex post (through either credit channels or a federal transfer system). Whereas, in the management literature, dealing with the International Asset Pricing Model (IAPM) and home bias, the personal advantage of individuals is stressed; the macroeconomic literature of international risk sharing concentrates on consumption smoothing. The link between these two directions is business cycle convergence: similar investments lead to similar consumption and therefore to a convergence of cycles. This link has only been simultaneously addressed in the literature in the sense of keeping the two topics apart (Sørensen, B.E., Wu, and Zhu, 2007; Lewis, 1999).

However, the positive link of the investor position and macroeconomic dimension of business cycle convergence has not been discussed in the literature yet. It is one of the tasks of the dissertation to highlight the theoretical link from personal advantages derived by rational investment strategies to business cycle convergence. The most important part is to investigate empirically if the theoretical link holds for the EMU countries. One may note that the rationality of investment decisions is not the important factor of business cycle convergence itself. This factor is the similarity of portfolios which result in similar income
effects – whether portfolio strategies follow the IAPM or not. Following the IAPM is the second step that does not only contribute to synchronisation of the cycles but also contributes to smaller amplitudes, i.e. consumption smoothing. Why is the IAPM still examined, if it is not the driving factor for similar income effects? The thought is that if all investors follow the same strategy, necessarily, the portfolios must reflect the similarity of investment and create similar income effects.

Summarizing the basic ideas analysed and investigated in the dissertation, it is as follows: The main task is to investigate the linkage between business cycle convergence and the impact of a declining home bias. The focus is on private investors due to the rising importance of private financial wealth. The main hypothesis is that similar portfolios contribute via a convergence of consumption cycles to a convergence of business cycles.

The pre-conditions for a positive judgement of the main hypothesis are numbered below in a chain of hypotheses. This chain needs to be analysed and proved empirically in the course of the dissertation until it finally leads to the conclusion that the main hypothesis can indeed be empirically verified.

1. The linkage between financial wealth and income effects exists, – or put in other words – “wealth influences consumption”. Otherwise, investment strategies would have no influence, and the investigation would not be appropriate.
2. The IAPM is a plausible investment strategy. It is likely that investors behave according to it; therefore, the optimal portfolio weights derived by the IAPM can act as a benchmark to measure home bias.
3. Portfolios in the sample became more similar.
4. A lower home bias is an influencing parameter for a higher similarity of portfolios. Otherwise, the similarity of the investment strategy, the IAPM, would not be important for the portfolio structure.
5. A higher similarity of portfolios results in more similar returns out of this investment. This linkage is necessary because I argue that the transmission channel runs via consumption and the most important influencing factor for consumption is income.
6. Similar investment contributes to consumption cycle convergence.
7. A convergence of consumption cycles contributes to business cycle convergence.

The following graph illustrates the transmission channel of the theses chain: It runs from similar portfolios over similar financial returns and over similar consumption to converged cycles.
The investigation includes several steps:

The theoretical links are highlighted. This includes important preconditions, such as influences on business cycle convergence or the consumption-wealth linkage. The main theoretical part is built by an account of portfolio theory, especially the IAPM (Part B). The major investigation is led in the empirical part. It consists of an analysis of the status quo of home bias in the EMU with a special focus on the similarity of private portfolios. The core part comprises the empirical investigation of the linkage between the similarity of private portfolios and consumption/business cycle convergence of EMU countries (Part C). The last part summarizes; gives an overview on possible political actions and concludes (Part D).

The main contributions of this dissertation, which are new to the research area, are:

- It sets the investigations on home bias on the basis of a longer, more recent time series as previous studies.
- It is the first time that a similarity index is applied on portfolios.
- The similarity of portfolios is brought in the context of consideration that the financial world has an impact on business cycles and contributes to business cycle convergence via consumption.

Graph 1: Transmission Channels from Similar Portfolios to Business Cycle Convergence

[Diagram showing the relationship between similar portfolios, similar return structures, consumption convergence, and business cycle convergence]