Capital flows to emerging markets: Institutional investors and the post-crisis environment

Bruno Bonizzi*

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Abstract

After the global financial crisis in 2008-2009, emerging markets have (re)started to be an significant target of global capital flows. This paper looks at this issue through a theoretical framework based on Post-Keynesian monetary theory, and in particular on Hyman Minsky's Wall Street paradigm and concept of Money-manager capitalism and Jan Toporowski's theory of capital market inflation. The key aspects of such an approach are, firstly, that in a monetary analysis capital flows need to be understood as "flows of funds", as opposed to the traditional understanding of capital flows based on "real" decision, such as saving and investment. A consequence of this is the need of focusing on gross rather than net capital flows. Secondly, it is important to understand the specific forms that capital flows take: analyses based on traditional balance of payments and international portfolio positions classifications seem to overlook the fact that flows are the result of decisions by specific institutional sectors. In today's world, pension funds and other institutional investors – alongside banks – are key players in the financial markets, and their role in shaping gross capital flows to emerging markets must be explicitly recognised. Thirdly, along the lines of Minsky and Toporowski, portfolio choice by institutional investors need to be assessed in relation to their balance sheet structure, beside risk/return tradeoffs and general state of risk aversion.

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1 Introduction

The integration of emerging markets into the global financial system has been characterised by cyclical periods of capital inflows, interrupted by sudden capital outflows and financial crises. Probably the most renowned boom-and-bust cycle was the surge of private capital flows to emerging markets during the 90's that ended with a succession of crises, starting with Mexico in 1995 and then touching East Asian countries in 1997-1998, Russia in 1998, Brazil in 1999, Argentina and Turkey in 2001. The following boom to emerging markets during the 2000's was again interrupted by a sudden reversal of capital flows during the global financial crisis following the Lehmann Brothers collapse in 2008. Since 2009 capital flows to emerging markets are again at historical heights.

This highly cyclical nature of capital flows and the increased frequency of financial crashes have cast questions about the process of financial globalisation - i.e. the dramatic expansion of international financial transactions over the past twenty-thirty years - and holdings itself. The global financial crisis was a major strike in the consensus about the beneficial effects of freely moving capital. As famous columnist Martin Wolf states "if global finance does little more than bring catastrophe in its wake, it becomes almost impossible to defend existing, let alone increased, levels of financial integration" (Wolf, 2010, p. 1). Prominent economists have in fact argued, after the crisis, that financial globalisation benefits, whose evidence is at best modest, are far outweighed by risks and costs and stressed the need to change the global financial architecture (Rodrik and Subramanian, 2009; Obstfeld, 2009; Lane, 2012). Even the IMF (2012), formerly one of the most important supporter of international capital market liberalization, is now adopting an "institutional approach to capital flows", which recognises the risks of financial globalisation and that "there is no presumption that full liberalization is an appropriate goal for all countries at all times", opening at the same the possibility for capital flows management - i.e. capital controls - on a case-by-case basis.

Financial globalisation is therefore at the core of current academic and policy discussions. Studying its determinants may give us the opportunity to understand its evolution and better judge its consequences, and perhaps contribute to prevent it from leading to such catastrophic consequences.

This paper aims to contribute to this task. It will assess the driving forces behind the surge of capital flows to emerging markets after the 2008 crisis. It will try to understand what reasons lie behind the decisions of investors to increase their exposure to emerging markets.

It will do so by focusing on one particular set of investors: institutional investors from the United Kingdom. This focus, as it will be shown, is due to the central importance of institutional investors in modern economies, on the basis of empirical and theoretical reasons. The country choice follows from the importance and size financial markets and financial institutions for the UK economy. In particular the size of UK institutional investors is the third biggest in the world, after the US and Japan. The importance of the UK financial sector the country is moreover reflected by the country position within the global financial system, with the great importance of the City of London as a financial centre.

This paper is divided in eigth sections. The second section outlines some of the limitation of the conventional theories of capital flows. The third section will outline a different approach to capital flows, based on a "monetary analysis" of the economy, rooted in post-Keyensian monetary theory and in particular Minsky's Wall Street Paradigm, The fourth section draws the implication of the third to the analysis of capital flows. The fifth section assesses the literature highligthning the rise of institutional investors. The sixth section syntehsises the previous ones to construct a different approach to capital flows. The seventh section presents some empirical results. The eighth section concludes.

2 The drivers of capital flows: limitation of conventional analysis

The conventional points of reference for the analysis of capital flows to developing and emerging countries are two. The first is an equilibrium analysis of an international loanable funds market. According to standard neoclassical theory, capital flows are driven by return differentials among countries. If there are no restrictions, capital will flow where returns are higher, that is where

capital is relatively scarcer, i.e. to developing countries[1]. This situation allows countries to improve their pattern of inter-temporal consumption, by either lending money to finance more lucrative projects abroad, or borrowing money more cheaply than what could be borrowed domestically to finance more investment.

Essential to this theory is the identity, derived from national accounting, that equals the current account to the difference between saving and investment: $CA = X - M = S - I$. Since the capital account is by definition equal to the current account, this idendity is understood to imply that savings and investment decision are the key variables of analysis of capital flows. In the words of several prominent macroeconomists:

> "Capital flows are traditionally viewed as the financial counterpart to savings and investment decisions, in line with the narrative of capital flowing "downhill" from capital-rich countries with lower rates of return to capital-poor countries with higher returns. From this perspective, the focus is typically on net capital flows, since that is what counts for funding a country's borrowing requirements."(Brunnermeier *et al.*, 2012)

Most of the important capital-flows related controversies in international macroeconomics have been more or less explicitly analysed on these bases. These include, for example, the Feldstein-Horioka puzzle (Feldstein and Horioka, 1980), the Lucas' paradox (Lucas, 1990) and the recent debate on global imbalances and the "global savings glut" (Bernanke, 2005; Blanchard and Milesi-Ferretti, 2009; Obstfeld and Rogoff, 2009).

The second key theory is an international application of the Capital Asset Pricing Model. Since securities from different countries show low levels of correlations between each other, investing in foreign assets improves the efficiency of a portfolio, by reducing its overall variance. An implication of the CAPM is that if all investors followed such a strategy, all portfolios in the world should be expected to converge to a standard perfectly diversified world portfolio of international assets. The world market portfolio, which includes all assets with weights proportional to their presence within

[1]The argument being that diminishing marginal productivity implies a decreasing marginal rate of return as capital accumulates.

the world market, is thus the most efficient portfolio.

The predictions of such models were rarely met in practice. On the macroeconomic front the mentioned global imbalances clearly show how capital in net terms flows from developing to developed countries. Moreover the process of "financial globalisation" has induced a dramatic increase of international asset-holdings, including in emerging countries (Lane and Milesi-Ferretti, 2007). Private capital flows have kept flowing to emerging countries, but outflows have grown more, particularly in the form of foreign exchang reserves. All these phenomena are hard to rationalise by focusing purely on current accounts. This limitation has in fact been acknowledged by international macroeconomists, as shown by the discussions on "valuation effects" (Gourinchas and Rey, 2005b; Devereux and Sutherland, 2010; Tille, 2008). Recent works of Obstfeld (2012a,b) frame these discussions into a broader theoretical picture that recognises the importance of gross capital flows and financial positions, alongside that of current accounts, in the transmission of international shocks and adjustments.

On the finance front, several empirical facts do not conform to the standard model. As already shown by the early "push-pull" factors literature (Calvo *et al.*, 1993; Taylor and Sarno, 1997; Fernández-Arias and Montiel, 1996), capital flows seem to overreact to changes in global factors, rather than domestic economic fundamentals. In general international capital markets are found to be severely affected by informational asymmetries, which lead to a series of "puzzling" phenomena - e.g. home bias, positive-feedback trading, herding, contagion - that characterise financial investment in emerging markets. One of the most theoretically informed paper (Mody and Taylor, 2013) considers the issue in terms international capital rationing in a supply and demand environment: in presence of informational asymmetries, capital flows to some countries may be permanently rationed, but also subject to procyclical and sometimes quite sharp changes (especially during a crisis), as perceived credit-worthiness changes over-time. Similar analyses come out of the "international macro-finance" literature (Pavlova and Rigobon, 2010). Technical developments have allowed scholars to create DSGE models with imperfect financial markets and multiple assets (Devereux and Sutherland, 2007, 2011; Tille and van Wincoop, 2010; Pavlova and Rigobon, 2011; Evans and

Hnatkovska, 2012). These models allow the authors to explain in a general equilibrium framework most the "puzzles" by introducing several "complications" to the benchmark modles - such as transaction costs and dispersed information.

In such a framework fundamentals are still the main driver of capital flows. Even when they are the result common external "push" factors, such as an increase in advanced countries interest rates, capital flows are responding to change in fundamentals - the smaller return gap between domestic and foreign assets (Kumar and Persaud, 2002; Ahmed and Zlate, 2013). Asymmetric information prevent the market from always accurately reflecting fundamental values, but changes in underlying and/or future fundamentals still drive investor decisions. The only potential source of fundamentals-unrelated decision is investors "risk appetite", which has however received little attention, but is found to have a very important impact on capital flows (e.g. Brana and Lahet, 2010).

While the improvements in the literature are able to account empirically and theoretically for the existing patterns of capital flows, there remain some limitations which must be overcome to fully understand them.

Firstly, the literature tends to over-aggregate and misspecify different kinds of investors. In a world where private agents make many decisions of international investments it is paramount to understand which sector in the economy is driving capital flows. Moreover it is key to understand the precise nature of the investor driving such flows (e.g. banks, pension fund, sovereign-wealth funds). While there exist some micro-literature assessing the role of mutual funds (see Gelos, 2011, for a survey), the macro-literature focus on foreign exposures of countries as a whole. The literature is any case a-historical and does not recognise the evolution of "investors" through historical time and space.

Secondly and directly stemming from the previous point, the process of portfolio choice is confined within the standard boundaries of a return/risk optimisation. While undoubtedly the risk/return tradeoff plays a major role, different kind of investors may have additional goals and constraint driving their portfolio choice. For example, the role of risk-appetite that some authors

have emphsized is one of such motives.

Thirdly, from a methodological point of view the literature suffers from a "teleology" of the market. The models introduce various kinds of imperfections to account for discrepancies between the basic models and the actual observation. By so doing, the literature essentially believes that those models prediction are valid *a priori* and imperfections are in the world rather than in the model. As stated, fundamentals are still driving most of the underlying processes, it is simply an additional layer of frictions that prevent such processes to fully result in the basic models predictions.

Finally, this literature still suffers from a fundamental theoretical weakness: it is based on a loanable funds theory. Interest rates are essentially the same thing as real returns from productive investment and are determined by the equilibrium between saving and investment. The dynamics of capital flows are thus determined by what are ultimately real economic decisions. In general equilibrium models, as in all new classical intertemporal choice models, the most important determinant is the consumption choice of economic agents, who determine aggregate saving, and consequently the dynamics of current accounts and capital flows. Similarly, in the empirical literature, the supply and demand model of capital flows is nothing but a model of international loanable funds market with imperfections that lead to credit rationing. This view echoes Schumpeter's notion of a "monetary theory of credit" (Schumpeter, 1954, pp. 686-687): banks and financial intermediaries extend credit by channeling funds internationally, and build multiple claims on them, but ultimately this pyramid has to come from the supply of loanable funds, and must be thus settled in "real" money.

Obstfeld (2012b) seems to go beyond this view by stating that "at any point in time, the size of the current account imbalance is limited by output sizes and the sizes of predetermined international assets and liabilities – but there is no limit to the number of times funds can be recycled in different forms between Home and Foreign". In other words, there is a preset stock of "funds" that can be exchanged internationally several times, thus making gross flows several times higher than their net difference. However he does not bring the analysis its extreme consequences: in Schumpeter's (1954) terms this means taking the extra step to analyse the economy on a *monetary* - that is by considering the fundamentally monetary nature of modern capitalism - rather *real basis.* Only by

doing so one can go beyond the limitation of conventional theories of capital flows.

3 Post-Keynesian monetary analysis: a synthesis

Assessing capital flows on the basis of a loanable funds theory can be considered a *real* analysis. A different perspective should start from the point of view that modern economies are fundamentally *monetary*. A monetary analysis, in Schumpeter (1954)'s words:

> "introduces the element of money on the very ground floor of our analytic structure and abandons the idea that all essential features of economic life can be represented by a barter-economy model ... it has to be recognized that essential features of the capitalist process may depend upon the 'veil' and that the 'face behind it' is incomplete without it".

Monetary analyses recognise the importance of money as an essential component of a capitalist economy. It rejects the idea that money is neutral, that is the idea that what matters for economic decisions are not nominal - i.e. monetary - values but "real" values, which are generally defined as nominal values divided by the price level. In the words of Keynes, quoted in Bertocco (2005, p. 493):

> "The distinction which is normally made between a barter economy and a monetary economy depends upon the employment of money as a convenient means of effecting exchange. It is regarded as a mere link between cloth and wheat, ... It is not supposed to affect the essential nature of the transaction from being, in the minds of those making it, one between real things, or to modify the motives and decisions of the parties to it. ... That, however, is not the distinction which I have in mind when I say that we lack a monetary theory of production. An economy, which uses money but uses it merely as a neutral link between transactions in real things and real assets and does not allow it to enter into motives or decisions, might be called. . .. a real exchange economy"

On the contrary, monetary analysis considers all the fundamentals characteristics of a capitalist economy - production, employment, consumption - are essentially monetary, in line with the famous statement by Robert Clower that "money buys goods and goods buy money; but goods do not buy goods". Money is, in the spirit of Marx, is also the end the capitalist production process, and thus the underlying drivers of capitalist dynamics: "the purpose of production is to accumulate money - not to barter the produced commodities for other commodities ... money is the object of production - it is not merely the way we measure the value of output" Wray (2010, p. 4). Moreover, since goods do not buy goods, it follows that money is also needed as a starting point for any economic activity. In short, as Keynes - quoted in Fontana (2000, p. 40) - stated: "The theory which I desiderate would deal ... with an economy in which money plays a part of its own and affects motives and decisions and is, in short, one of the operative factors in the situations of that the course of events cannot be predicted either in the long period or in the short, without a knowledge of the behavior of money between the first state and the last".

To summarise, there are two main lines of thoughts in the post-Keynesian literature, about the nature of a monetary economy. The first, which originates in the liquidity preference theory contained in the GT, focuses on the role of uncertainty in creating a demand for money stocks, and liquid assets more broadly defined. In this sense therefore, liquidity preference can be interpreted as theory of asset choice, and considers the money as a store of wealth (Tily, 2012). The second line of thought focuses on the endogenous money creation through bank credit. Endogenous money theory and "circuitism" focus more on the circular flow of money, therefore highlighting the importance of money as "purchasing power" (Fontana, 2000; Sawyer, 2003). However it is hardly contestable that in a modern capitalist economy money plays both roles. The debates in post-Keynesian monetary theory seems to originate in a difficulty to provide a consistent theory of money that reconcile its two fundamental roles (Fontana, 2002). As Chick (1999, p. 126) puts it, "while Keynes broke the classical dichotomy between the monetary and real aspects of the economy, this device simultaneously created a new dichotomy between flows (the analysis of income) and stocks (portfolio analysis)".

Analysing some recent developments in the post-Keynesian literature, it seems that a synthesis between the various approaches can be found. While post-Keynesian scholars acknowledge that decisions behind a "finance" demand for credit money are quite independent from the "portfolio" demand for money as an asset, in practice the two are usually merged together into a single "demand for money" function. This not only represents a theoretical shortcoming but also creates, as Sawyer (2001, 2003) has convincingly argued, an empirical problem: credit-money as purchasing power corresponds to what is today defined as M, whereas money as a store of wealth corresponds to M3 or M4 (other than M1), a distinction, that Kalecki had already pointed out. As Bertocco (2005, 2006, 2007) has explicitly argued, what is needed is a framework that specifies the distinction between a credit and a money market. He refers to Tobin's contributions that distinguished between an income account and a capital account: the former tracks income flows, where income decisions such as investments are made, the latter tracks supply and demand of different assets, tracking the change of stocks over-time. Clearly credit-creation, being the outcome of firms' investment decisions, is related to the income account, while the money-market, being associated with portfolio allocations by wealth holders, is part of the capital account.

Viewpoints similar to Bertocco's have been expressed by several others scholars over the past decade. Brown (2003) argues that the main interpretation of liquidity preference is flawed, conflating a transaction/finance demand for credit money with the portfolio decisions of wealth holders, and therefore should be re-interpreted in the spirit of the *Treatise on Money*'s concept of "bearishness", i,e, the desire to hold assets with stable values, even if low yield. If there is a rise in liquidity preference, the "bears" prevail, and there is a shift towards broadly defined money, increasing the yield and decreasing the prices of long-term securities:

> "It is the ever-present potential for convulsive shifts in the structure of relative prices among securities, brought about by the interplay of psychological and institutional factors, that is, or more accurately, ought to be, the quintessence of LP." (p. 331)

This view of liquidity preference actually has several important precedents (Townshend, 1937; Boulding, 1944; Robinson, 1979; Mott, 1985). In today's world, where secondary markets for

securities are deep and well developed, liquidity preference is relevant for all assets that pertain to what Keynes called "financial circulation" (Erturk, 2005, 2006).

There is no incompatibility between this view of liquidity preference and the endogenous money theory: "under the assumptions of extreme horizontalism, this analysis [liquidity preference] does not apply to the overnight rate, to loan and deposit rates, and to government bond rates ... still, this leaves a great range of assets whose prices are in part determined by liquidity preference" (Wray, 2006, p. 9). Lavoie (1996, 1999, 2006) - one of the most prominent horizontalists monetary endogeneity - has also repeatedly claimed that horizontalists have never questioned the importance of liquidity preference - and other reasons - in influencing interest rates, but simply argued that there is no compelling case for an upward sloping money supply curve. While still claiming that horizontalism is the best approximation, he acknowledges the fact that liquidity preference has a role to play in banks' credit creation including credit rationing, households portfolio allocation and firm's financing decisions.

Although less directly related to the theory of liquidity preference, the theory of the monetary circuit is also fully compatible with the idea that money can be held as a stock. This is well explained by Realfonzo (2006):

> "monetary circuit theory distinguishes between the demand for money to finance production (which Keynes called 'finance motive') and the demand for cash reserves (dependent on the famous transactions, precautionary and speculative motives). The finance motive explains the creation of money and its injection into the economy ... The demand for cash reserves leads to the formation of money stocks which are present at the closure of the circuit." (p. 110-11).

Thus, in the monetary circuit there is a clear distinction between the credit market[2], where banks and firms bargain over loans, and the financial market, where households can decide to use part of their savings in security purchases. The interest rates forming in the two markets are different,

[2]Unfortunately Realfonzo (2006) calls the credit market "money market", thus potentially sparking confusion in terminology.

the second being directly related to liquidity preference. Clearly, in a financially sophisticated economy, the magnitude of the stock of existing securities is such that the interest rates originating in secondary markets effectively affect the ones originating in credit markets, thus giving liquidity preference an even greater importance on interest rates.

There seems therefore to be a line thought pointing to the importance of analysing together the flows of income and the capital account transactions of the various sectors, in a wider macroeconomic framework. A very useful theoretical framework in these respects, can be found in theory of Minsky, and especially his "Wall street paradigm", which he firstly exposed in his book *John Maynard Keynes* (Dymski and Pollin, 1992; Dymski, 1997; Minsky, 2008; Bellofiore *et al.*, 2010). In chapter 4, Minksy depicts a modern monetary economy, essentially in terms of balance sheets and cash flows:

> "In a capitalist economy, one way every economic unit can be characterized is by its portfolio: the set of tangible and financial assets it owns, and the financial liabilities on which it owes ... Each economic units makes portfolio decisions ... what assets are to be held, controlled, or acquired ... [and] the position in these assets ... is to be financed. Both assets and liabilities ... set up cash receipts or expenditures over some fixed or variable future time period" (p. 70).

To analyse the dynamics of a Wall Street economy, it is therefore central to assess the balance sheet structure and the cash flows dynamics of the various units that compose it. This leads to a re-interpretation of Keynes' theory of the "own rate of interest" as a theory of asset prices: an asset is valued on the basis of its quasi-rents, its carrying costs and the liquidity premium. In the context of the Wall Street paradigm this acquire a particular interpretation related to the balance sheet structures, where the quasi-rents from are cash inflows from assets, the costs of holding such assets are the cash commitments from the liabilities, and the liquidity premium is the the implicit yield that liquid assets owe to their ease of disposal - that is it can quickly generate an actual cash flow if sold. In deciding the composition of their balance sheets, economic units speculate that their liability cash commitments can be met by cash receipts originating from its assets. Liquidity preference essentially affects the shift of balance sheets, not only as an asset shuffling between money

and bonds, as in the original Keyensian formulation, but between capital/non liquid financial assets and liquid assets on the asset side, and in the leverage choice on the liability side.

Minsky also acknowledged the importance of an elastic supply of money (p. 123), and the difference between credit creation and the portfolio choice of units: "the finance for both additional capital-asset production and the increased debt-financing of positions has to come from some place. Two sources of such financing may be identified: the creation of money and portfolio diversification of wealth owners." (p. 121). Finally, Minsky believed that the evolution of the economy as a macro-monetary system could be based on the distinction between different three types of cash flows, income flows, balance sheet flows and portfolio flows, "which he proposed to integrate into what we would now call the "flow of funds" accounts, showing the evolution of money in circulation and portfolio balances" (Toporowski, 2012a, p. 6).

It would thus seems that Minsky's Wall street paradigm provides a useful theoretical framework upon which to develop the view of a monetary economy that is characterised by balance sheets that evolve through time through the dynamic interaction of cash flows. It also enriches the traditional Keyensian view of decisions under uncertainty, by highlighting the importance of the liability structure in determining portfolio choice. The burgeoning literature on stock-flow consistent models[3] seems to provide a formalisation of this view:

> "SFC macroeconomic models are, by definition, ones in which the balance sheet dynamics of all assumed institutional sectors (given by sectoral saving flows, portfolio shifts, and capital gains) are explicitly and rigorously modeled .. this definition implies (as exemplified in the next section) that SFC models are necessarily based on social accounting frameworks that consistently 'integrate' conventional product and income accounts with 'flow of funds' accounts and a full set of balance sheets" (Dos Santos, 2006, pp. 542-543).

Unsurprisingly, Minsky is mentioned by Lavoie and Godley (2012) as a main linkage between the stock-flow consistent approach and post-Keynesian economics.

[3]See (Dos Santos, 2006; Lavoie and Godley, 2012; Caverzasi and Godin, 2013) for an overview.

4 Gross capital flows in a monetary economy

Given such a framework of analysis, we can reassess the nature of capital flows. First of all it is necessary to locate international capital flows within the framework of the income and the capital account. The simple fact that capital flows are statistically registered in the capital account of the balance of payment already hints that they fall in the latter. Capital flows are part of the capital account - they pertain to the domain of portfolio allocation and decisions. A monetary analysis needs to consider capital flows as "flows of funds", rather than transfers of "real" resources.

This view is clearly at odds with any assessment of capital flows on the basis of current accounts. Current accounts are the outcome of decisions pertaining to the income account: saving and investment or imports and exports. In a monetary economy these have a financial transaction counterpart in the capital account, which can be divided, in line with Minsky's definitions, in income flows (the trade in goods and services) and balance sheet flows (net factor income). However a great deal of transactions are excluded from them. These "portfolio transactions", that is transactions resulting from the purchase and selling of existing and newly-created assets, are logically distinguished from the current account, and can be - and are in practice - several orders of magnitude higher than income and balance sheet flows. To capture the dynamics of such transactions one needs to focus on gross flows rather than flows.

A recent paper by Borio and Disyatat (2011) vividly expressed this view. They argue that the focus on net flows arises out a confusion between "saving" and "financing", a view that clearly echoes the traditional Keynesian criticism of the loanable funds theory. Their paper makes several important points in line with the views expressed so far. Firstly, gross capital flows bears little relationship to current account because most financial transactions result in zero-net flows. An example can clarify this point: suppose a US private resident purchases a UK security, denominated in british pounds sterling. This represents an increase in US claims to the UK and thus a gross outflow. However, to purchase the security, the US resident must pay for it in pound sterlings, which leads him to either run down some reserves in that currency he might have, or exchange his dollars for british pounds in either a US or a UK bank (at least indirectly). This results in either a

reduction of gross outflows or an increase in gross inflows thereby offsetting the initial transaction.

Secondly, by implication, this means that the current account does not tell much about how investment in a country is financed. "Even if, say, a country's current account is in balance, or no imports and exports take place at all, the whole of its investment expenditures may be financed from abroad" (p. 9). Thirdly, it is wrong to link any specific type of gross flows to the current account. Specifically this points related to the widely held view that current accounts are needed to accumulate reserves. Reserve accumulation is however a financial transaction that generates offsetting flows, and for it to occur, there only needs to be a gross inflow of foreign currency, which may not necessarily be related to the current account. Finally, clearly this is even more valid in the presence of multilateral capital flows: "in terms of national income accounting, deficit countries are compensating for the non-consumption of surplus countries. In this sense, current account deficits are matched by saving in other regions. But the underlying consumption and investment expenditures that generate such imbalances may be financed in a myriad of ways, both domestically and externally." (p. 10).

This view is alternative to general equilibrium and loanable funds theories of capital flows, but also goes beyond analyses based on post-Keynesians approaches. Many authors have in fact sought to explain the the boom-and-busts cycles in emerging markets within the framework of Minsky's financial instability hypothesis (Kregel, 1998; Arestis and Glickman, 2002; Schroeder, 2002; Onaran, 2007; Frenkel and Rapetti, 2009)[4]. In this line of inquiry, capital flows add to the traditional build-up of financial fragility in emerging markets. In particular, financial liberalisation - both domestic and capital account - kicks off the boom phase of the cycle: high interest rates and good growth prospects attract foreign capital flow, which in turn ease off the financing conditions in the economy, increasing liquidity of financial markets and institutions. The economy will then experience a credit boom, with rising asset prices. At the same time, the real exchange rate appreciate, following nominal exchange rate appreciation and/or increasing prices of non-tradable as a result of the boom in aggregate demand, generating a current account deficit. As the boom

[4]A full exposition of the financial instability hypothesis is beyond the scope of this paper. See Minsky (1992b) and Kregel (2012).

proceeds, more economic units will present an increasingly fragile financial structure, by borrowing short-term and often in foreign currency - as the cost of borrowing abroad is lower, given the interest rate spread and the real exchange rate appreciation of the domestic currency. At some point however, the fragility of the economy would be such that either some endogenously generated problems occur in the domestic economy (e.g. a bank failure), or international investors start to doubt the soundness of the economy and start to decrease their exposure to it or even speculate against its currency. Either way financial fragility will quickly turn into a financial crash, with dramatic fall of the exchange rate and higher interest rates, which will create extremely serious situations for economic units.

While these theories depict accurately the dynamics of the emerging markets crises in the late 90's, recent events cast doubts about their validity as a general theory of open economy boom-bust cycles. The pre-2008 cycle of capital flows to emerging markets present some substantial different from the story outlined above (see section 4.1). First of all, most emerging markets had solid "fundamentals", such as government fiscal soundness or contained firms' and banks' leverage; secondly, they received massive capital inflows despite their current account surpluses, which in some Asian countries were remarkable; thirdly, the highly destructive phenomena of currency and maturity mismatches were largely not present; fourthly, they accumulated unprecedented levels of foreign exchange reserves, as a shield against both the likelihood and the consequences of a financial crisis. This did not prevent, in late 2008, massive capital outflows from emerging markets, with asset deflations and exchange rate falls, and a generalised, albeit less severe than in the past, economic crisis.

Booms and busts cycles of capital flows therefore may be largely detached from domestic financial conditions. Theories that ultimately link financial crashes to financially unstable domestic financial systems, and where capital flows simply amplify or trigger phases of the cycle, are not well equipped to analyse the recent trends of financial globalisation. The limitations of these theories can be also traced back to the their insufficiently clear distinction between gross and net capital flows. Just as the standard financial instability hypothesis cannot be considered a general theory of the business

cycle (Passarella, 2012; Bellofiore *et al.*, 2010), the open-economy Minskyan theories cannot be considered an always valid characterisation of capital flows cycles [5].

Capital flows must therefore be understood in relations to the conditions of the international monetary structure. Some post-Keyensian authors have characterised this with the notion of "currency hierarchy", according to which different currencies have different liquidity premia, based on their ability to store value (Andrade and Prates, 2013; Terzi, 2005). Kaltenbrunner (2011) expands this view by arguing that liquidity premia are determined by their ability to be used to meet outstanding obligations, that is to use assets denominated in that currency to cover liabilities funded in the reserve currencies. Since this ability is low for emerging markets, their currencies have lower liquidity premia making them subject of unstable patterns of capital flows and exchange rate, as investors will quickly turn to more liquid assets when their liquidity preference increases, i.e. during a crisis. These patterns, as Biancareli (2009, 2011) considers, can be characterised by the notion of "liquidity cycles": capital flows to emerging markets are always "a consequence of a reduction in liquidity preference in the international level" (p. 9). This is because in addition to the inherent instability of contemporary capital flows, emerging markets face further problems, coming from the asymmetric nature of the global financial systems: due to smaller and less liquid financial markets and less liquid nature of their currency of denomination, not always fully convertible in the reserve currency - i.e. the dollar -, emerging markets assets are always considered a risky non-core part of investors portfolio, subject to sudden losses of confidence and thus likely to be liquidated quickly in times of turmoil. "Hence, the power of domestic "fundamentals" – which can, of course, reinforce a trend already in progress or compensate its effects – are clearly subordinated to more important forces".

Such views are consistent with the "monetary analysis" of capital flows. The notion of "liquidity cycles" itself, as Biancareli (2009, p. 5) argues, is preferred to capital flows because of the latter's association to the idea of a foreign savings/current account analysis, whereas the focus is on private

[5] This does not mean that such characterisations are not useful anymore. For example, emerging eastern european economies in the 2002-2007 period have experienced a boom and bust cycle of capital flows that is perfectly consistent with those theories.

financial capital, which "seems to move without any close relation with the current account result". For this reason it is best to consider saving as an *ex-post* phenomenon, which follows "the cross borders search for yield movement by huge amounts of private capital". Additionally, these analyses understand capital flows as the result of international investors liquidity preference, thus linking flows to shifts in (stocks of) assets.

In sum, a monetary analysis of capital flows must consist in four elements: firstly, the acknowledgment that capital flows are flows of funds, coming from and going to money stocks, and therefore pertain to the analysis of capital account changes; secondly, as a result, the focus should be on gross rather than net flows, as the latter simply reflect the financial transaction related to income flows, whereas international flows can be several times higher than their net result; thirdly, in today's world, most of these flows of funds are portfolio transactions (in the Minskyan sense) by economic units; fourthly in the case of emerging markets these flows are tighly linked to the asymmetric nature of the global financial system, and the currency hierarchy in particular.

These four elements are therefore key to a proper understanding on the patterns of capital flows and address most the criticisms raised about the conventional views. However they do not fully address the issue of the nature of investors and portfolio choice. In line with Minsky's Wall Street view, there is a need to understand which units within countries are "taking positions" in foreign assets and how they are financing it. To paraphrase Kalecki, countries do not invest as a whole and it therefore makes little sense to say that capital gains on the net foreign assets of a country can offset a current account deficits (Gourinchas and Rey, 2005a,b; Gourinchas, 2006), as deficits and capital gains and negative income-expenditure gaps may originate in very different sectors within a country. For instance, it is hard to maintain that capital gains accrued on banks' international balance sheet can be used to offset a foreign deficit of the government sector. This is valid for the receiving side, but also for the foreign investors side. Kaltenbrunner (2011) does in fact acknowledge the importance to distinguish between different types of investors, as the behavior and motives of different institutions may differ considerably.

There is therefore a need to understand the role of the different sectors in shaping the dynamics

of gross financial flows. To do so it is important to have an analysis of institutional characteristics of the financial system in contemporary capitalism. This will be the task of the next section.

5 The rise of institutional investors: Money-Managers and the Theory of Capital Market Inflation

Understanding gross capital flows, according to the ideas put forward in the previous section, needs going beyond an analysis based on immutable system - or as Davidson (1996) puts it an "ergodic system". Innovation, following Marx and Schumpeter, is a key characteristic of of a capitalist economic system. Understanding capitalism as a monetary economy thus requires an historical analysis of the evolution of the financial system. It is important to understand what are the key financial innovations at the core of the process of financial globalisation.

Innovations in the financial sector have been at the forefront of the evolution of late 20th century capitalism. As the literature on "financialization" shows[6], the role of financial institutions and practices has experienced considerable changes over the past three decades, considerably affecting households, non-financial firms, banks and economic policies. Specific stylised facts include: the push for "shareholder value" creation by non-financial firms, the rise of household debt, innovations in the financial markets (e.g. the creation of new asset classes such as derivatives), the change in banking practices towards fee-generating business and the creation of "shadow banking" system, the dominance of market-based over bank-based financial systems, the liberalisation of international capital accounts. All these facts are in turn correlated with the slow-down of productive investment and the resulting sluggish growth, as well as the rise in inequalities and wage-repression. Most theories have in fact described financialization as a either a result of stagnation (e.g. Foster and Magdoff, 2009), a cause of it (e.g. Stockhammer, 2004) or rather some structural change in modern capitalism (Lapavitsas, 2011). The diversity of the views and facts raised by different authors

[6]The literature is extremely vast. See Epstein (2005); Krippner (2005); Stockhammer (2004); Palley (2007); Lapavitsas (2011) for some of the most wide-ranging and vastly quoted works in the literature, and Stockhammer (2012) for a more recent updated review. See also Toporowski (2012b) for a critical overview.

suggest the richness and the importance of the "financialization" debate. On the other hand they highlight the difficulty in finding a common framework of analysis, as the extremely broad definition which is generally used for financialization suggests: "financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies" Epstein (2005, p. 3). It is hard to disagree that this definition is clearly relevant for the analysis of modern capitalism. However it is similarly hard, as Toporowski (2012b) argues, to formulate a coherent theory it that goes beyond such a definition and the observation of some sketchy, albeit important, empirical facts.

One of the most important aspects among the financial developments of the past thirty years is the rise of institutional investors as key actors in the financial markets and in the economy more in general. This was the result of the increasing institutionalisation of households savings, especially through the inauguration of funded pension schemes, that characterised (especially) Anglo-Saxon countries in the mid '70s. The importance of institutional investors for contemporary capitalism is also highlighted by the fact that some scholars, quite independently from each other, have addressed it as the most important development in the modern economies, as to dub contemporary capitalism as "pension fund capitalism" or "money-manager capitalism"[7].

Within the economics discipline, Hyman Minsky was one of the first scholar who recognised the relevance of the the rise of "money-managers" for the structure of american - and global - capitalism. While Minsky is mostly known for his "Keynes-inspired" theories of the business cycle, which gave rise to the Wall-Street paradigm and the Financial Instability Hypothesis, in the late stages of his career he focused on long-term trends of capitalism development. His work starts from a reappraisal of Schumpeter[8] who, along Marx and Keynes, "define the problem that economic theory must explain as the path of development of an accumulating capitalist economy through

[7]Another definition is "real subsumption of labour to finance" (Bellofiore and Halevi, 2010). This definition is however broader, as it includes also other aspects of "financialization" such as household indebtedness and casualisation of employment.

[8]While praising Schumpeter's views on credit and capitalist development, Minsky was also highly critical of the inconsistency in Schumpeter's works. He especially blamed his ambiguous relations with Walrasian general equilibrium theories, which he found inconsistent with his early views as expressed in "The theory of economic development" Minsky (1983b, 1992a).

historical time", which "do not lead to smooth progress but rather to 'explosions' and breakdowns ... crises are the normal result of the capitalist process" (Minsky, 1983a, p. 2). This gives rise to a view of "economies as evolving systems, systems that exist in history and change in response to endogenous factors ... history doesn't lead to an end of history" (Minsky, 1992a, p. 104). Hence, there is a need to formulate historically grounded theories: "He [Minsky] firmly believed that general theories are either plainly wrong, or are simply too general to be of any use ... institutions must be brought into the analysis at the beginning; useful theory is institution-specific" (Papadimitriou and Wray, 1998, p. 201).

Charles Whalen (2001, 2012), who worked with Minsky in the development of his theory of capitalist development (Minsky and Whalen, 1996), has summarised four key features of such a view. Firstly, there is the focus, as in Schumpeter, on the role of credit and the financial structure in driving capitalist dynamics: a credit system, i.e. "a set of institutions that were not dependent on prior savings in order to finance investment" (Minsky, 1983a, p. 15), is a necessary component of a capitalist economy. Borrowing Schumpeter's expressions, Minsky argues that the banker is the *ephor* of market economies, thus effectively being the "overseer" of the economy and deciding, by (not) providing credit, what "enter the realm of the possible" (Minsky, 1992a, p. 106). Secondly, Minsky highlights the importance of profits as key determinants of capitalist dynamics:

> "among the players in financial markets are entrepreneurial profit-seekers who innovate. As a result these markets evolve in response to profit opportunities which emerge as the productive apparatus changes. The evolutionary properties of market economies are evident in the changing structure of financial institutions as well as in the productive structure"(Minsky, 1992a, p. 106).

Thirdly, in a sense combining the previous two points, innovations in the financial sector are also key drivers of development. The financial sector, being driven by profits like any other sector, is constantly evolving through time so that "the *ephor* is itself endogenously determined" *(Minsky, 1992a, p. 106).* Finally, Minsky recognises the role of policy as driver of change. The banker is the only *ephor* if there is no central authority supervision over the economy, but, once it recognised

that economic changes endogenously generate instability, the importance of the government and the central bank "as the ephor of the ephor of the financial structure" (Minsky, 1988a, p. 10) becomes central.

With this theoretical framework Minsky analysed the evolution of US capitalism. He divides that into four stages: commercial, finance, managerial and money manager capitalism[9]. Money manager capitalism emerges out of the relative stable phase of managerial capitalism, with the institutionalisation of funded pension schemes which integrated and/or replaced social security system based pensions. This led to vast accumulation of savings stocks that were entrusted to external fund managers, who became the new key actors in the economy. The behavior of these managers led to remarkable changes in the economy. Firstly, with the the rise of managed-money funds most companies shares were actively traded by money-managers, whose sole interest is to maximise the financial return of their managed portfolios, resulting in major emphasis by corporate managers on short-term profits and companies' valuation. Secondly, since fund managers do not generally value control and long-term holding of securities, they tend of accept "offers" that improve their portfolio, hence facilitating security exchange for the purpose of highly speculative merger and acquisitions activities such as and leveraged buy-outs. Finally, money-manager capitalism increases the scope for international diversification, as money managers are always striving to find ways to improve their returns.

Another useful theoretical framework to analyse the increasing role of pension funds the theory of capital market inflation, which was theorised by Toporowski (2002) and subsequently developed in later works (Toporowski, 2000, 2010). The theory provides a disequilibrium - alternative to traditional finance theory inspired by various versions of the efficient market hypothesis - theory of the financial markets mechanism. It argues that the inflows of funds into the capital markets is what effectively determines the general level of security prices: whenever the supply of equity capital is higher than demand by firms, a net excess inflow of funds enters capital markets. This net excess inflows is traded within the market by financial intermediaries and inflates the price of

[9]We focus here only on the last stage. See (Minsky, 1988a, 1992a; Whalen, 2001, 2012; Wray, 2009) for a complete overview of the first three.

securities. This process lasts "until effective prices reach a level that elicits the issue of sufficient new stock to take up the positive net inflow, or until the positive inflow ceases" (p. 34). Once the supply of equity capital becomes smaller than its demand and the cumulated excess inflows dry up, the rising illiquidity leads to deflation. The historical process, according to (Toporowski, 2002) originated the process of capital market inflation was the creation of funded pension schemes in the late 70's. The introduction of pension funds created a huge and sudden inflow of funds into the equity markets that pushed up securities price. At the same time the decline of funded pension schemes poses an ultimate constraint on the process of capital market inflation: as pension funds reach "maturity", i.e. the situation by which the pensions expenses exceed the contributions, the decline of their investment will lead to more "bearish" markets and eventually to deflation. Thus in the the long-run capital market inflation is unsustainable, creating potential issues for both pensioners security and financial stability more in general.

There are clearly points in common with the theory of capital market inflation and the economics of Minsky's. Indeed Toporowski (2002, p. 6) considers Minsky as "the writer whose work is most immediately developed in this book", and in a later paper (Toporowski, 2000, p. 4-6) he specifies the links between his theory and Minsky, suggesting two main points of connection. The first is Minsky's concept of "layering", the "pile" of claims that units have on each in the financial system, which in the case of a large scale inability to meet such claims in a sub-sector of the economy, could bring about generalised collapse for the system. Toporowski argues that this is in fact the situation with pension funds: in a situation of sufficiently large scale maturity, the need to sell assets in order to meet pension commitments liabilities would make the security prices collapse thus generating widespread insolvency in the pension fund sector. Secondly, Toporowski refers to Minsky's famous taxonomy of financing structure and argues that the current structure of the capital market is essentially a big Ponzi scheme, where units seeks capital gains that depend on a continued inflows of funds into the market. Interestingly, Toporowski never mentions Minsky's concept money-manager capitalism, despite the fact that it deals with very similar issues to the theory of capital market inflation.

To sum up, the examination of different theories seems to point out that one of the most important development over the past thirty years is the rise of institutional investors, as a result of funded pension schemes inauguration. The theories of "pension fund capitalism" and Minsky's concept of "money manager capitalism, along with the broader themes of "financialization", all suggest that the historical development of western capitalism has given much prominence to the role of fund managers and their decision. In Minsky's terminology, fund managers are among the most important "position makers" in today's capitalism, and therefore their analysis is crucial to understand the patterns of financial claims, balance sheets and transactions. The view taken here therefore claims the need to link the insights put forward by the theories of economic development about the changing role of finance through the rise of institutional investors, with a theoretical framework grounded in the Minskyan "Wall Street paradigm" of balance sheets and cash flows commitments. In this sense Toporowski's theory of capital market inflation, which adopts a similar approach, represents the most important and direct inspiration for such a work.

6 Institutional investors decisions and capital flows to emerging markets

The considerations made in the previous subsection can be used to inform the analysis of gross capital flows.

The removal of restrictions to capital flows has in fact made it possible for institutional investors to invest in foreign assets rather easily. Indeed, it could be argued that international portfolio investment is essentially a characteristic of modern capitalism, as institutional investors seek to improve the efficiency of their portfolio by diversifying it internationally and get higher returns from foreign assets when domestic returns are low. Minsky (1988b, p. 35) suggested that as managed funds grow, international portfolio diversification is likely to be an increasingly common phenomenon. He also pointed out (Minsky, 1988a, p. 10) that "the international dimension of the movements from institutions to markets for financing is that the exports and import of capital

increasingly takes the form of the purchase of managed and international portfolio diversification by managers of money". Specifically considering flows to emerging markets, Nissanke and Stein (2003) argue that the rise of gross capital flows over net capital flows shows that capital flows are driven "diversification finance" needs by investors. The view that financial globalisation and the institutionalisation of savings are closely linked is expressed by Braasch (2010, p. 2):

> "The institutionalisation of savings is one of the main drivers of financial globalisation. Given the rapid increase in inflows to such large, cross-border institutional investors, the search for yield and - even more so - for ways of diversifying risk has forced portfolio managers, working in a highly competitive environment, to channel more funds into hitherto relatively peripheral markets, which are less correlated with one another"

Moreover this is linked to the understanding of international financial fragility at the macroeconomic level (p. 3):

> "If the behavior of key global market players is not understood, it will be impossible to understand the process of financial globalisation or to achieve significant progress in analysing the causes and implications of financial crises ... This is not about gaining an insight into individual investors' strategies, but about obtaining better data at the aggregate level, in other words for the main investor groups, in order to assess market dynamics, to achieve better and more timely monitoring."

This is the key link between the analysis of portfolio choice, and the international macroeconomic analysis of financial globalisation. Portfolio shifts by institutional investors are one of the key mechanism that originates gross capital flows in today's world. It is clearly not the only one: international bank credit and short term highly speculative carry-trade operations by hedge funds or other financial institutions or long-term productive foreign direct investments clearly represent important components of gross capital flows. Nevertheless, given the importance and the size of institutional investors in the modern economy, they are likely to be one of the most important

source of capital flows to emerging markets. Capital flows are thus here analysed as gross flows of funds, resulting from decisions of institutional investors, which have implications for their own balance sheet and cash flows structure and for the wider macro-financial structure of stocks and flows.

The analysis capital flows in a dynamic sense must be based on the understanding of what leads institutional investors to change their position with respect to international assets. In line with all the theoretical reviews made so far, this may be understood to work through four channels, that link economic circumstances to institutional investors' portfolio choice (Figure 1).

The first channel is the standard asset allocation decision that evaluates risk against expected returns. This is the channel described above in Minsky's and Braasch's quotes: institutional investors seek to expand their international asset holdings as a way to diversify their risk and/or obtain higher yields. If international assets are seen as a chance to decrease portfolio volatility or enhance its returns, for example as a consequence of low yielding domestic assets, investors will adjust their allocation accordingly, thereby generating capital flows. This kind of mechanism works for all types of investors and may work even when the portfolio choice strategy moves away from the standard mean-variance framework to other strategies based on risk factors (see next section). Most of the considerations made about "push" and "pull" factors, as well as standard theories of portfolio choice fall essentially into this first channel.

The second channel follows from the views expressed in the previous subsection, particularly from the review of Minsky's Wall Street paradigm. What matters when analysing economic units' positions, is not only their investment behavior *per se*, but its relevance within the consideration of balance sheets and cash flows commitments. The asset structure of a unit - or a macro-sector - needs to be assessed in relation to the associated liabilities, which are therefore an essential component of investment "decisions". Institutional investors liabilities however are of a peculiar nature since they are contractual long-term obligations, such as future pension incomes to be paid and technical provisions for insurance policies, rather than debt commitments. Institutional investors have thus small margins of choice in the determination of their liability structure and the

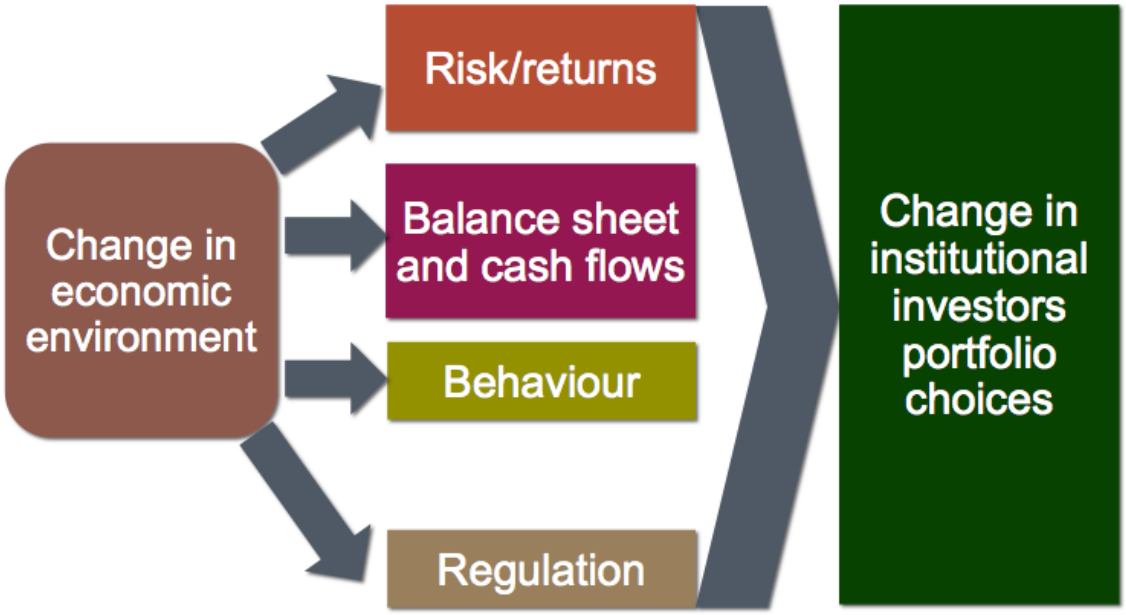
cash flow commitments resulting from them. They can change the offer of their products, which is indeed going on for example with the shift from defined benefits to defined contribution pension schemes, but they clearly lack the flexibility of banks and investors that manage their short-term liquidity almost on a daily basis, or even firms. Since the liability structure is relatively rigid, the asset allocation is the institutional investors' main level of decision, which implies an even greater importance of balance sheets on their investment choice. Thereby, the key point for this discussion is understanding if and how pension and insurance liabilities and cash commitments affect their decisions to take positions in international assets.

The third is the impact on behavior "independently" from the balance sheet evolution. This is the channel explored by with Keynesian theories of liquidity preference, due to uncertainty about expectations or a state of general "bearishness", such as Biancareli's theory of "liquidity cycles", according to which "the movement of private capital flows to developing countries ... is always a consequence of a reduction in liquidity preference in the international level" (p. 9). The risk-appetite channel emphasized by a minor part of the mainstream literature fits in this category. Additionally, economic circumstances may induce structural changes in decision mechanisms by institutional investors, such as the decision to adopt different asset allocation mechanisms. In this channel are included also the considerations of benchmark-following and herding made in section 3. All these factors affect their fund managers' attitude towards different all types of assets, including international assets.

Finally, regulation may also affect institutional investor decisions. These may for instance changes in macroeconomic regulations at the international level, such as capital controls or financial transaction taxes, which may promote or disincentivise cross-border investments. On the other hand, there may be domestic regulations and accounting rules that could have a significant effect on institutional investors portfolio choice.

To provide a realistic picture of the current trend of capital flows, it is important to analyse what cyclical and structural factors are - or will be - pushing, through these channels, fund managers to increase their portfolio shares towards emerging markets assets.

Figure 1: Institutional investors channels



7 Preliminary empirical findings

This section will present some preliminary empirical findings. The first subsection outlines some the characteristics of financial globalisation and the evolution of capital flows to emerging markets[10] over time. The second subsection deals with the growing internationalisation of UK investors' portfolio, in particular their exposure to emerging markets. The third section sketches some of the key characteristics that could lead, through the channels explored in the previous section, to changes in portfolio choice. The final section concludes.

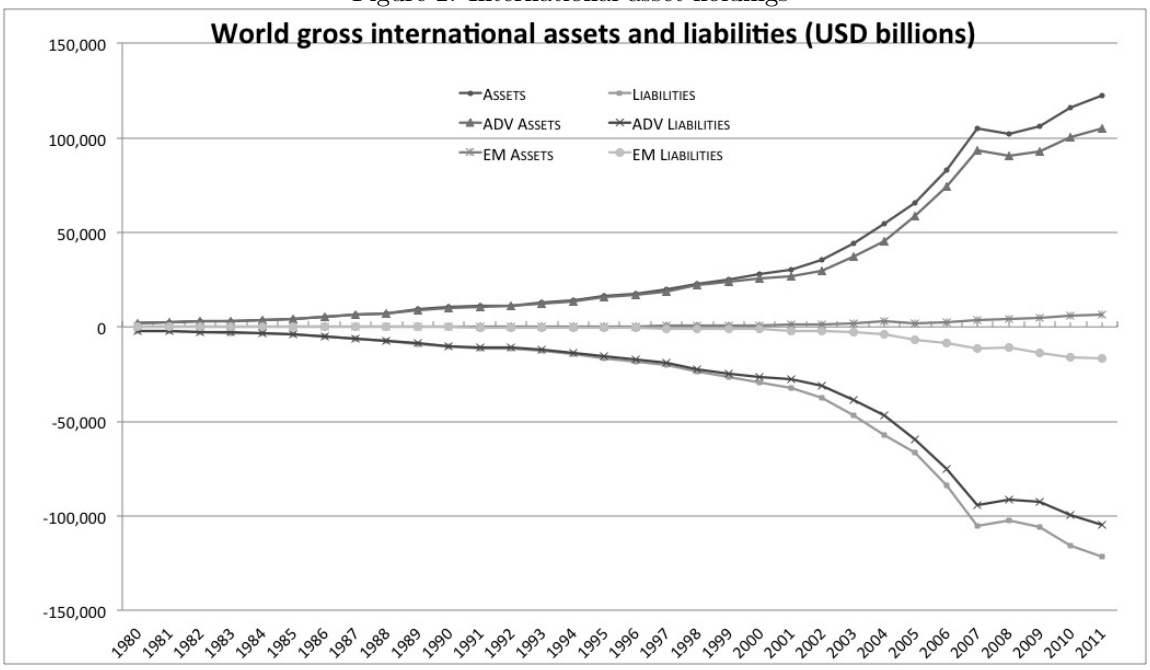
[10]Emerging markets are: Argentina, Brazil, Chile, China (People's Rep. of), China (Hong Kong), Colombia, Czech Republic, India, Indonesia, Korea (Rep. of), Malaysia, Mexico, Peru, Philippines, Poland, Russian Federation, South Africa, Taiwan, Thailand, Turkey.

Hong Kong is included since its financial markets are closely linked to mainland China's economy.

7.1 Financial globalisation and capital flows to emerging markets

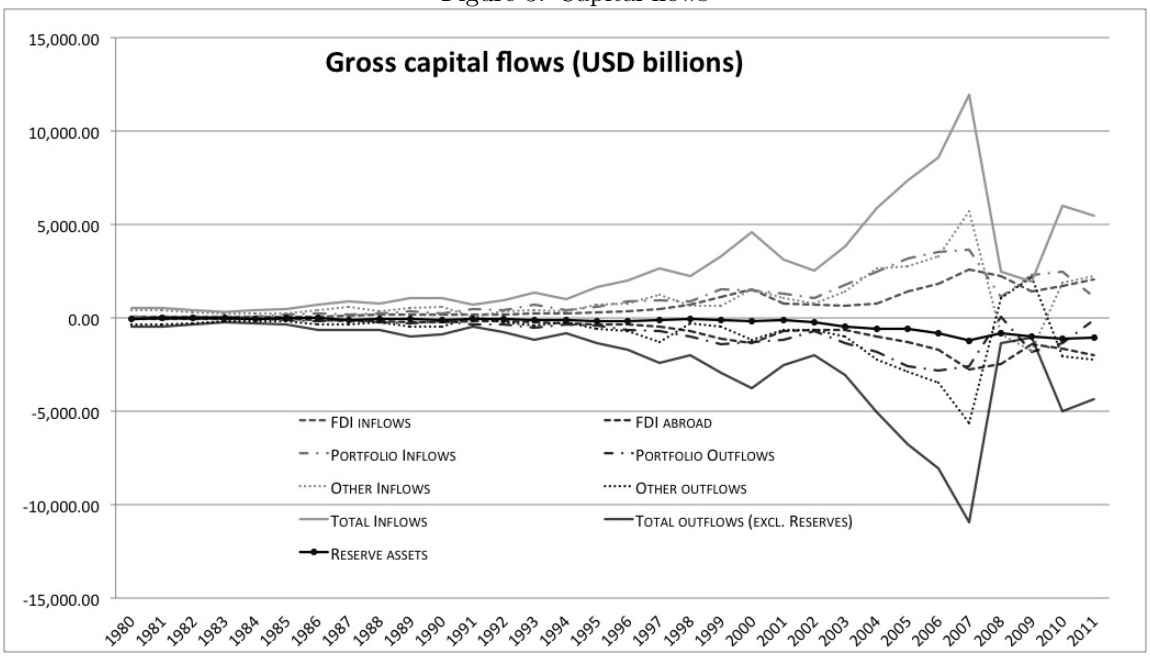
The following figures give an overview of the process of financial globalisation in general and in the context of emerging markets.

Figure 2: International asset holdings



Source: IMF Balance of Payments Statistics (BOPS)

Figure 3: Capital flows



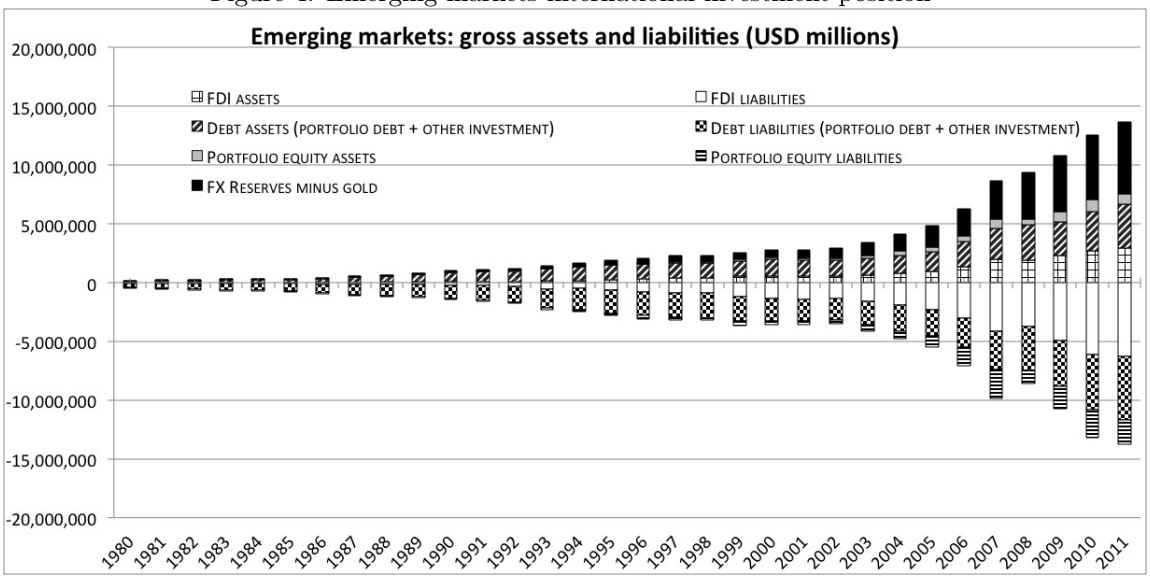
Source: IMF Balance of payments statistics (BOPS)

Figure 2 shows the steady expansion of international balance sheet positions. The process started in the 80's but really took off in the 2000's, and despite a slowdown in 2008, restarted increasing. The process has been clearly driven by advanced economies, but emerging markets started to have a sizable presence from 2002. Importantly their integration appears to be mostly through the liability side, suggesting that they have been more targets of international investments than investors themselves. Flows data, as shown in Figure 5, present a similar picture, but highlights the highly volatile nature of capital flows: capital flows seem to rise in fall in a cyclical fashion. The last cycle (2002-2008) was particularly extreme, with capital flows rising to over 10 thousands USD billions, and dramatically falling in 2008. Additionally, it is clear from the figure that capital flows have not yet recovered to their pre-crisis level.

In terms of composition, unsurprisingly FDI seems to be relatively stable. What drives the cyclical tendencies are mostly portfolio flows and other (i.e. banking) flows. The volatility of the

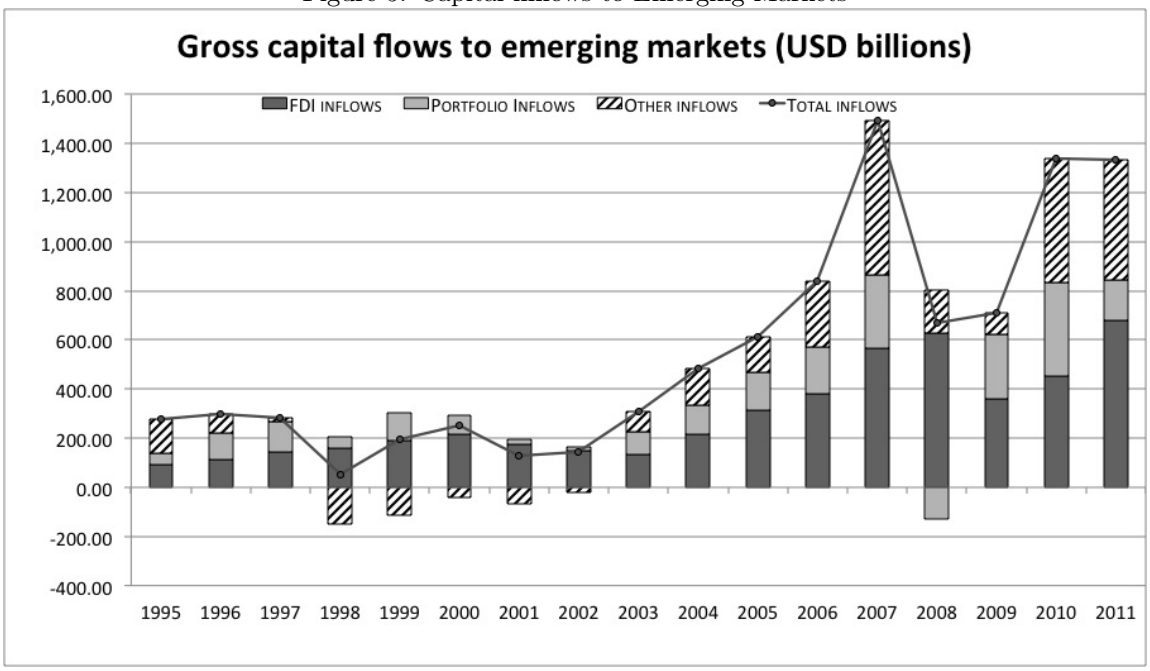
latter is especially noticeable during the last cycle, as flows reached a peak of roughly 5 thousands USD billions in 2007 and then became negative in 2008, suggesting that banks may have actively recalled some of their asset positions abroad. Another novelty of the last cycle, as it will be further shown, is the rise in importance of reserve asset accumulation. These figures thus picture financial globalisation as a steadily increasing but extremely unstable phenomenon.

Figure 4: Emerging markets international investment position



Source: Updated and extended version of dataset constructed by Lane and Milesi-Ferretti (2007) and IMF BOPS.
IMF data are preferred, when complete figures are available.

Figure 5: Capital inflows to Emerging Markets



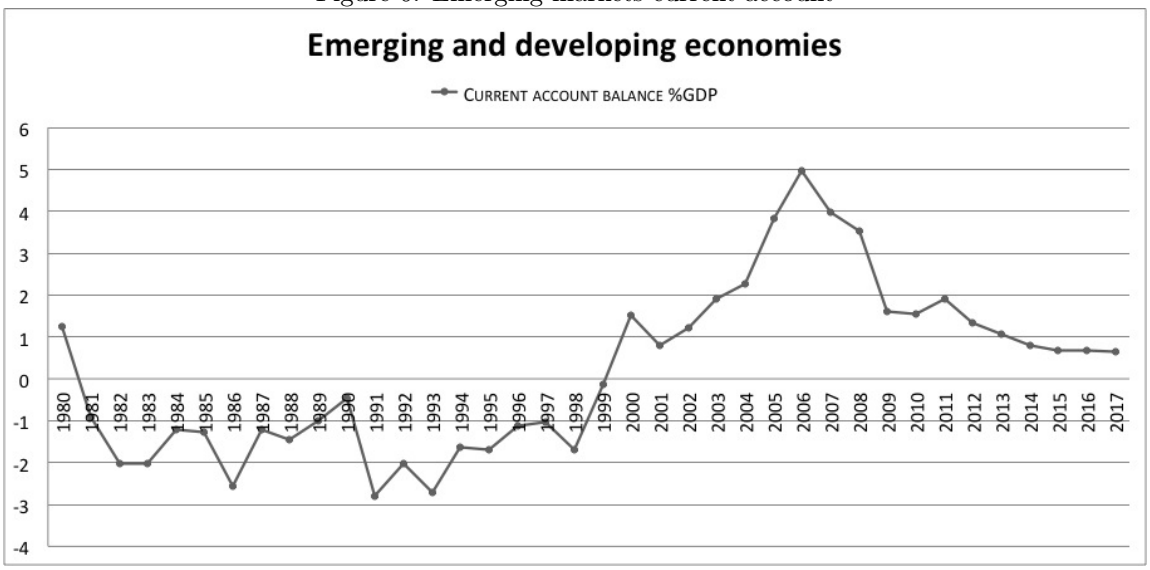
IMF: BOPS

Figure 4 and Figure 5 show the international balance sheet position of and capital inflows to emerging markets. In line with the global trends, emerging markets have experienced increasing levels of integration since the early 90's. Integration slowed down with the crises of the late 90's, but then regained momentum and expanded dramatically since 2003. The crisis in 2008 has had a sizable impact on capital flows and represented a further stop in the expansion of cross-border positions. However, differently from the global trends, after the crisis capital flows have recovered to levels almost as high as their 2007 peak, and gross positions have restarted their upward trend. This seems to show that while financial globalisation for the world as a whole seems to be in a relatively sober phase, for emerging markets the process is still strongly ongoing.

With respect to their composition, again, FDI seems to be relatively stable, whereas both debt (portfolio and banking) and portfolio equity seems to be much more volatile, with periods of major crisis leading to negative capital flows figure - that is net decrease of exposure to emerging markets

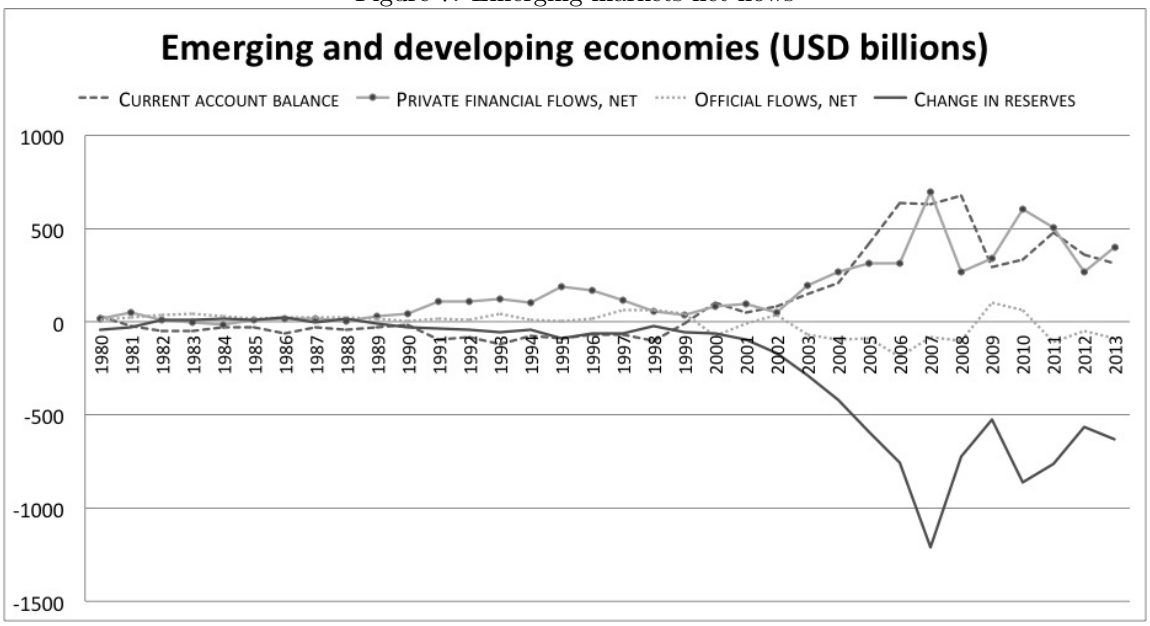
by foreign investors. In terms of investment stocks, on the asset side, the most striking feature is the increase in foreign-exchange reserves, the most important component of cross-border assets by emerging markets since 2003. As for liabilities, in the same period the increase is in relative terms more important for FDI and portfolio equities, while debt liabilities increase sizably only after the 2008 crisis. Interestingly, during crises years such as 2002 and 2008, only liabilities positions seem to shrink, suggesting much more pro-cyclical decisions by foreign investors than domestic ones.

Figure 6: Emerging markets current account



Source: IMF World Economic Outlook (WEO)

Figure 7: Emerging markets net flows



Source: IMF WEO

Some additional characteristics of capital flows may be inferred from Figure 6 and Figure 7. The first remarkable change is the reversal of the current account, both in absolute figures and in percentage of GDP: emerging markets, after the late 90's, started to experience surpluses in their current account. While these figures have reduced after the crisis, there is no sign, even in the IMF projections for the future, of emerging markets' current accounts going to negative figures, as they did in the 90's. Private capital flows, even in net terms - i.e. taking into account the expansion of private outflows, seem to have structurally increased, with a peak in 2007, and have remained high after the crisis. Figure 7 also confirms the impressive rise in foreign exchange reserve accumulation, which by construction of the balance of payments, had to offset both increased positive capital flows and current account surpluses.

In sum, these figures show overall show that the process of financial globalisation is a relatively new phenomenon but its expansion has been really dramatic, especially in the last decade. Capital flows have always been extremely volatile, especially in their portfolio and banking components.

Emerging markets joined the process later, and seem to be more subjects than actors in it. Moreover, in the more recent periods, private capital flows have come with current account surpluses, thus suggesting the purely financial nature of international transactions in the later stages of financial globalisation.

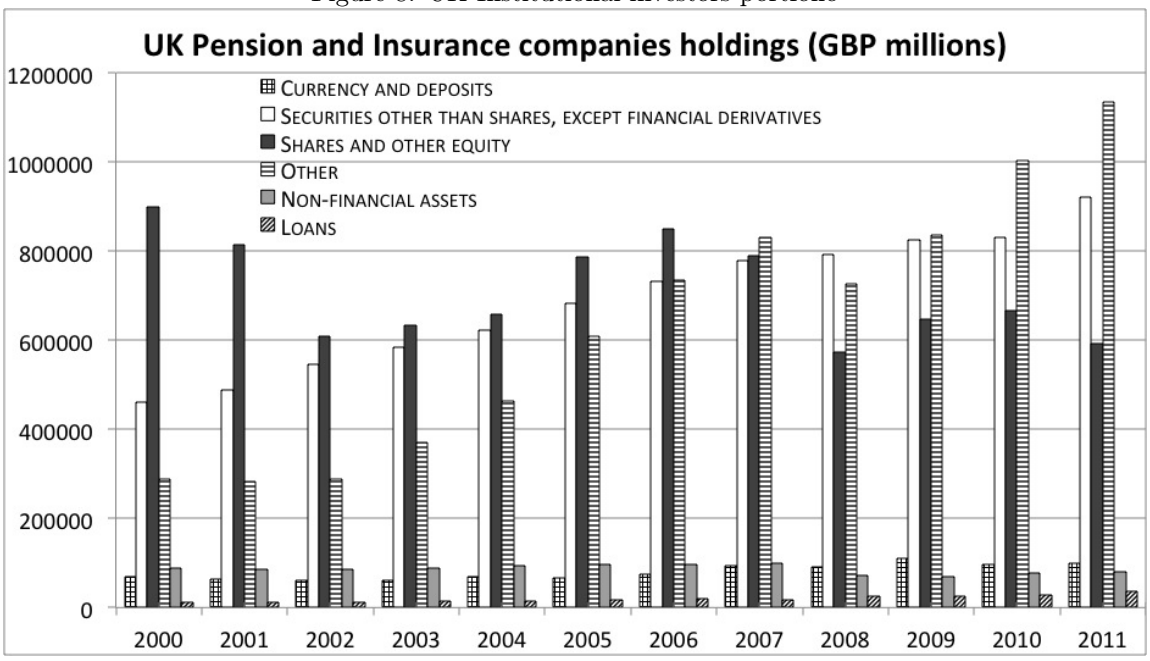
7.2 Institutional investors exposure to emerging markets

The counterpart of the increasing integration of emerging markets, is the growing internationalisation of balance sheets of institutions from advanced markets. The benefits of international portfolio diversification provide a sound theoretical reason to push investors to increase their international exposure. Moreover, as discussed in section 3, home-bias has been constantly declining over-time (Lane and Milesi-Ferretti, 2007). It is important to notice that, at present, comprehensive databases for cross-border asset holdings classified by sector and country of origin and destination do not exists[11]. This section will use data from the OECD institutional investors statistics and data from the Office of national statistics, which present an overview of asset allocations by institutional investors, and the IMF coordinated portfolio investment survey (CPIS), which allows for a more in-depth analysis of international portfolio composition.

First of all, the empirical importance of institutional investors has grown considerably: according to the IMF (2011) total assets under management were 173% of GDP in 2009, holding about 20 of total equities (Roxburgh *et al.*, 2011). The UK sector is particularly important, weighting the 8% of the total, just behind the US and Japan. There is thus an empirical case, aside from theory, for studying their dynamics

[11] As a matter of fact, the studies reviewed in this paper that require investor-level high-frequency data for statistical analysis either use proprietary databases, such as the one provided by EPFR (emerging portfolio fund research) or State Street corporation, or national-level data.

Figure 8: UK Institutional investors portfolio

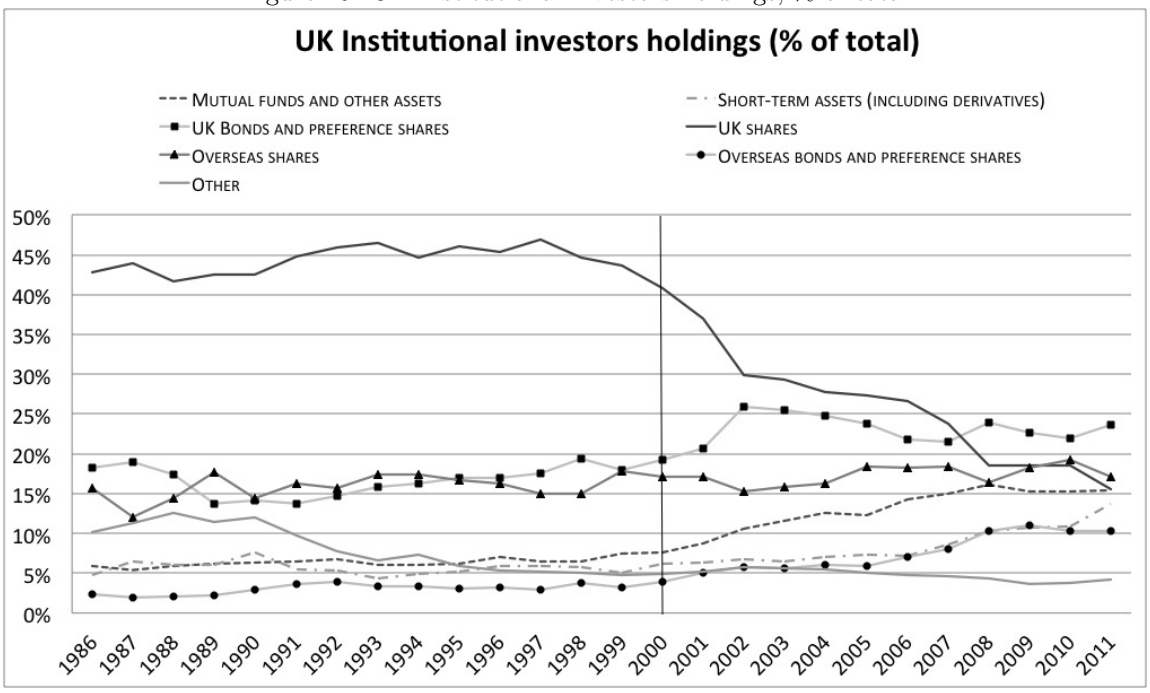


Source: OECD Institutional investors statistics

Figure 9: UK institutional investors portfolio (2)

Source: Author's calculation based on Office of National Statistics, MQ5: Investment by Insurance Companies, Pension Funds and Trusts

Figure 10: UK institutional investors holdings, % of total



Source: Author's calculation based on Office of National Statistics, MQ5: Investment by Insurance Companies, Pension Funds and Trusts

Table 1: UK institutional investors holdings, geographical allocation

	Asset type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
All institutional investors	UK non-shares	83.6	81.4	82.7	83.1	81.9	80.3	76.7	74.3	70.7	69.4	70.4	72.4
	Foreign non-shares	16.4	18.6	17.3	16.9	18.1	19.7	23.3	25.7	29.3	30.6	29.6	27.6
	UK shares	73.7	71.2	69.3	67.7	64.8	61.4	60.9	57.6	54.0	52.0	50.9	49.8
	Foreign shares	26.3	28.8	30.7	32.3	35.2	38.6	39.1	42.4	46.0	48.0	49.1	50.2
Pension funds	UK non-shares	77.6	77.1	80.8	81.4	81.2	78.9	75.6	72.5	69.9	70.9	70.6	73.9
	Foreign non-shares	22.4	22.9	19.2	18.6	18.8	21.1	24.4	27.5	30.1	29.1	29.4	26.1
	UK shares	68.8	67.1	64.1	59.7	56.3	52.1	51.9	47.3	46.4	42.9	43.1	42.1
	Foreign shares	31.2	32.9	35.9	40.3	43.7	47.9	48.1	52.7	53.6	57.1	56.9	57.9

Source: OECD Institutional Investors Statistics

Figure 8 shows the evolution of UK institutional investors - pension funds and insurance corporations - asset holdings over the past decade. The overall financial holdings seem to follow the financial cycle over the period, increasing over time, with the exception of crisis years, such as 2001-2002, and 2008. The more pro-cyclical component is unsurprisingly equities, which likely follows stock market performance. Equity holdings have however substantially decreased within the portfolio, never recovering the peak of 2000, and falling from about half of the total portfolio in 2000 to about a third in 2011. Beside stock prices movements, this seems to be linked by a rebalancing towards either bonds and bills, which have steadily increased every year over the whole period, or "other" assets, reflecting a increase in holdings intermediated by mutual funds and other institutions such as unit trusts.

Figure 9 provides a more detailed picture of institutional investors holdings over a longer period of time. The picture can be divided into two parts. In a first phase (1986-2000) portfolios were dominated (around 45% of the total portfolio) by UK shares, with the other categories remaining roughly constant: UK bonds and foreign equities weighted about 15-20% and all others asset types

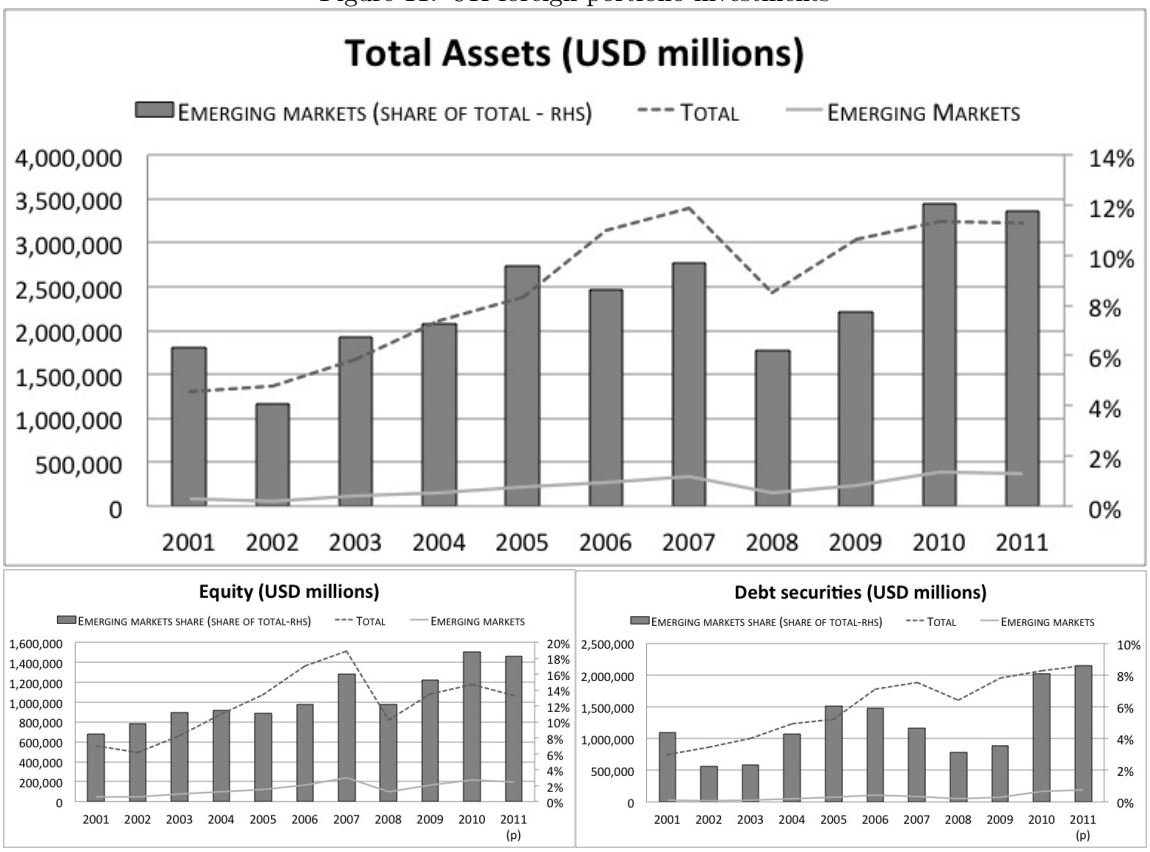
around 5%. The second phase (2001-2011) is primarily a characterised by a sharp fall in UK shares holdings, reaching 30% in 2002, remaining constant in the following years, and then falling again to about 17.5% in 2008. As a result pretty much all the others categories have risen: UK bonds reached 20%, mutual funds shares rose to 15%, short-term assets and foreign bonds to 10-15%. These data moreover conceal some of the holdings by underlying investors (insurance companies and pension funds) into unit and investment trusts [12], so that in facts the actual share of direct holdings of securities vis-à-vis claims on funds would be even lower.

Over the past decade institutional investors have moved towards a more balanced portfolio, previously highly skewed towards domestic equity. This has meant diversification towards different types of assets, such as bonds and mutual funds shares, but also a push towards international diversification. As Table 1 shows, the share of foreign securities has substantially increased. Pension funds in particular now hold 58% up from 31% in 2000, of their direct equity holdings in overseas securities.

While institutional investors holdings have become increasingly internationalised, ONS and OECD unfortunately only divide between UK and overseas security. The following data are from the CPIS database, which allows for country distinction - but, in general not by sector.

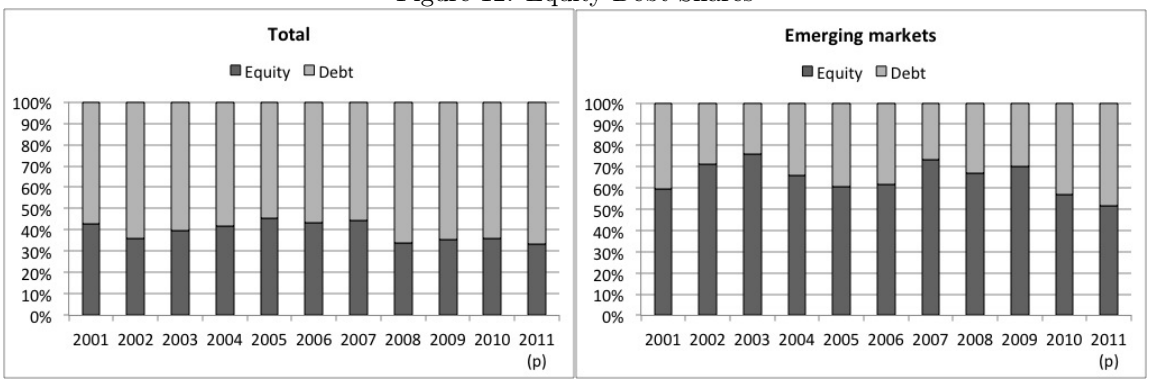
[12] Unit and investment trusts investments in securities are included in the aggregate figure. To avoid double counting, pension funds and insurance companies claims on these funds are subtracted in the database from the "mutual funds and other assets" figures. This operation effectively results in increased figures for direct security holdings. As a matter of fact the OECD data give holdings by insurance companies and pension funds of 1.1 thousands billions of "other assets", whereas the ONS figure is much lower at 484 billions. The missing 600 billions are likely claims on unit and investment trusts.

Figure 11: UK foreign portfolio investments



Source: IMF Coordinated Portfolio Investment Survey (CPIS)

Figure 12: Equity-Debt Shares



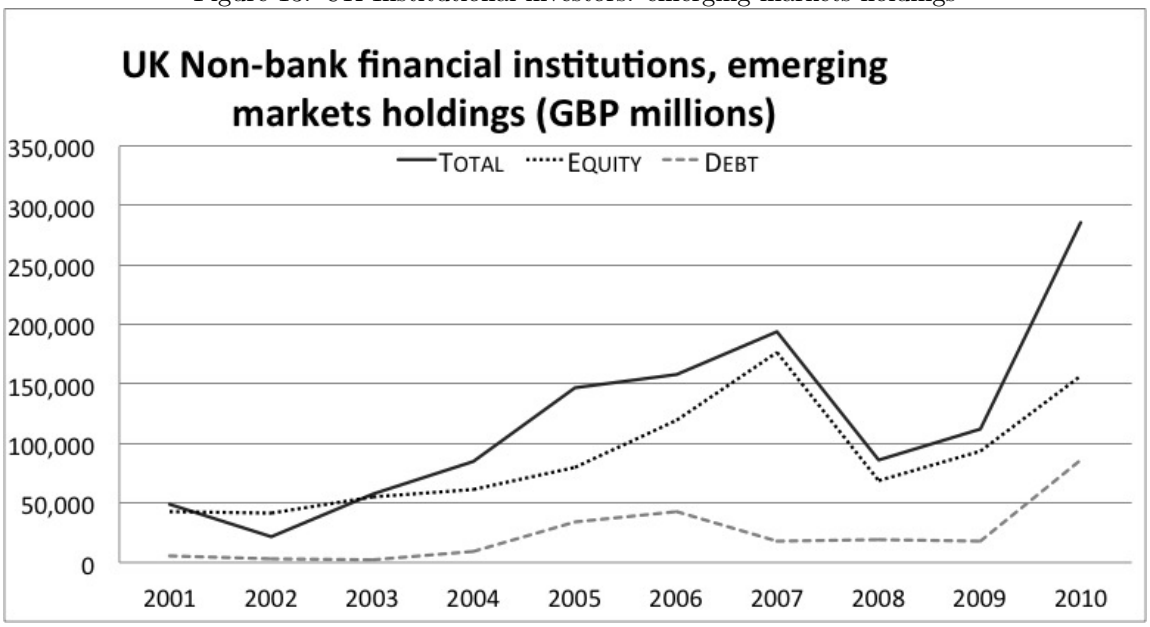
Source: IMF CPIS

Figure 11 shows UK total foreign portfolio holdings and the emerging markets share. Foreign holdings in 2011 have more than doubled from their level in 2001, increasing steadily in the 2002-2007 period, dropping in 2008 and stabilising after that. Emerging markets represented a growing proportion over all the period and, contrary to overall trend, have continued to rise after the crisis, representing in 2011 almost 12% of total foreign holdings, nearly doubling from 6.5% in 2001. Foreign equity holdings have moved in line with global trends, but have experienced a more sizable fall in 2008, never recovering to the 2007 peak of 1.4 thousands billions GBP. However, emerging markets equity holdings have continued to increase over-time, with the exception of 2008, almost recovering to their 2007 of 240 billions GBP level in 2010. Consequently emerging markets share of foreign equities has increased steadily, reaching almost 19% in 2010. Foreign debt holdings have been less volatile and continued to increase even after 2008. Emerging markets debt holdings have not kept up with the general trend so their share did not increase substantially during the 2002-2007 period. However in the post-crisis years, this seems to have drastically changed, as emerging markets foreign debt securities have increased to 184 billions GBP in 2011, more than doubling from their 2007 level. As a result their share to total foreign debt holdings has increased to more than 8%, up from 5% in 2007. This increase however, as shown by Figure 12, has not changed a feature of emerging markets holdings: UK investors seem to prefer equity over debt when it comes

to invest in emerging markets, while their foreign assets in general are more debt oriented.

The CPIS database has also data for the UK disaggregated by both sector of holder and country of issuance. Unfortunately this database can be sometimes unreliable[13], but it has a present the most comprehensive database of international portfolio holdings that allows for an assessment of different sectors' foreign investments.

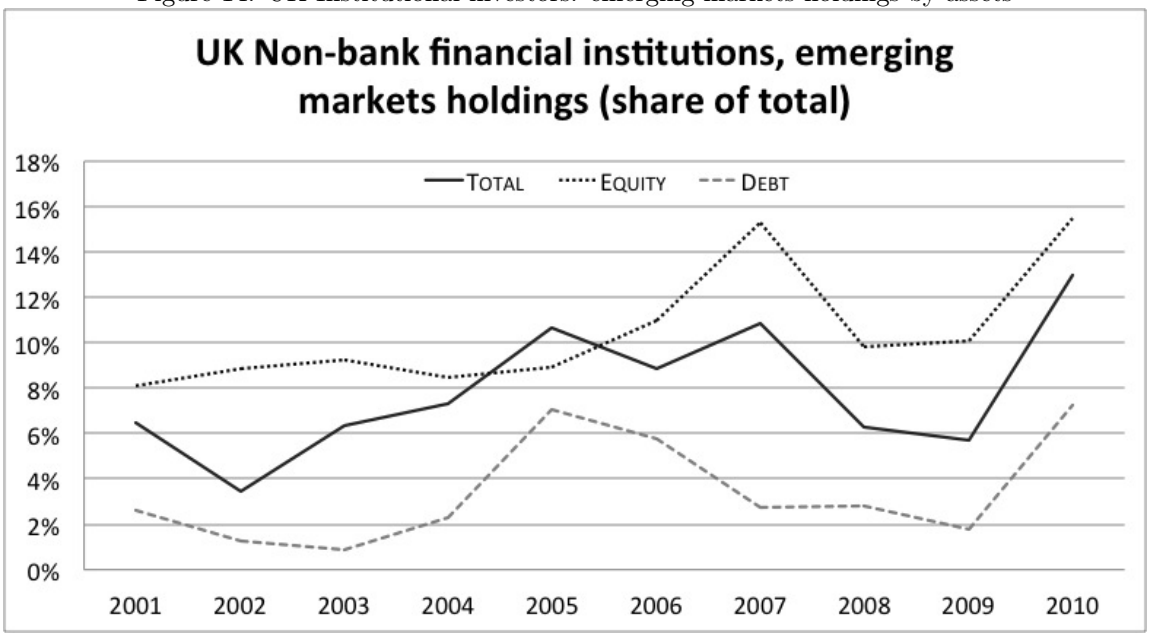
Figure 13: UK Institutional investors: emerging markets holdings



Source: IMF CPIS

[13]Data for 2002, 2008 and 2009 were especially defective, with many gaps and extremely high figures for unallocated or confidential data. Some figures such as extremely high negative position to emerging markets debt in 2009, which would represent massive short-selling by institutional investors, would also appear to be questionable. Additionally, while total figures are generally complete, disaggregation between equity and debt present several limitations for some countries, creating data consistency problems. The IMF (http://www.imf.org/external/np/sec/pr/2012/pr12438.htm) has acknowledged some of these problems and stated that a new version of the database, with improved data including increased frequency, will be released by June 2013. This will be extremely useful to update and clarify some of the findings of this paper and the overall Phd thesis.

Figure 14: UK Institutional investors: emerging markets holdings by assets



Source: IMF CPIS

Figure 8CPIS: shows figures for "Other financial institutions"[14] holdings of emerging markets. The overall picture is broadly in line with the general trends. Exposure to emerging markets have risen in the 2002-2007 period, and regained momentum after a stop in 2008, reaching almost 300 billions of GBP. In terms of asset types, in the 2002-2007 period equity holdings have risen considerably, while debt only increased in 2005-2006 and after the crisis. As Figure 14 shows, the absolute increase is accompanied by the growth in importance of emerging markets within foreign assets portfolio. Again, equity seems favored, rising to more than 15% of the total in 2007, and recovering to that level in 2010, after the shocks driven by the crisis. Debt shares have been more volatile, rising in 2005 to 7%, then decreasing slowly to 2% in 2009, and recovering extremely sharply to almost 8% in 2010.

These trends are essentially in line with the findings of a survey conducted by the IMF (2011).

[14]The database further distinguish between Insurance, Mutual Funds and Other. Due to severe gaps and data consistency issues however this paper will only analyse the aggregated figures.

The survey shows that in 2010 emerging markets equities counted for about 13% (15.5% for pension funds) and bonds for about 4% for of total asset holdings, figures that is almost double than the findings of this paper. Although the sample chosen by the survey does not only refer to UK-based investors, which may explain this difference, this clearly shows that this paper's findings surely do not overestimate the size of emerging markets assets held by british institutional investors.

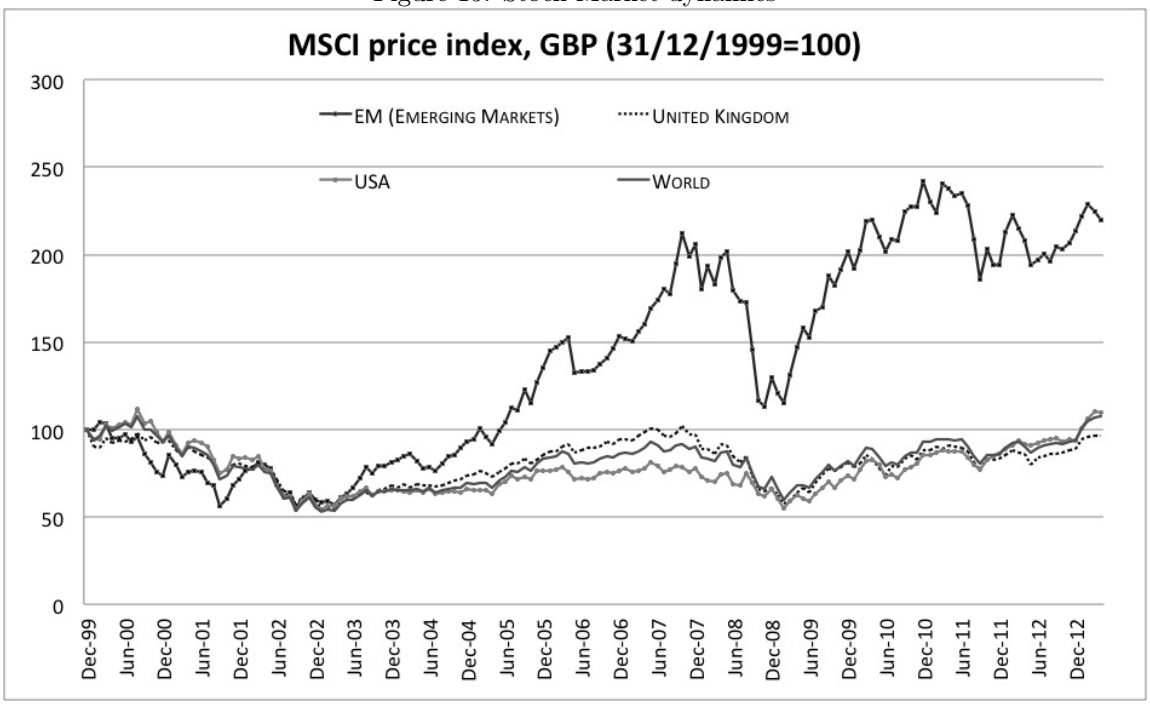
In conclusion, the portfolio composition of UK institutional investors during the decade before the Lehman Brothers collapse has experienced significant changes. After years of relatively stable asset structure heavily biased towards domestic equity, institutional investors have diversified their portfolio over-time: direct holdings of equity have decreased in favor of bonds and securities intermediated by mutual funds. Moreover their exposure to international assets have substantially increased for both equity and bonds. Within foreign holdings, emerging markets have represented an increasing proportion, a trend that the post-crisis seems to have reinforced.

7.3 Market conditions and institutional investors balance sheets

This subsection will investigate some the underlying causes of this portfolio shift to emerging markets. It will present some data that could account for changes in those four channels, as describe in the theoretical framework outlined in the previous section.

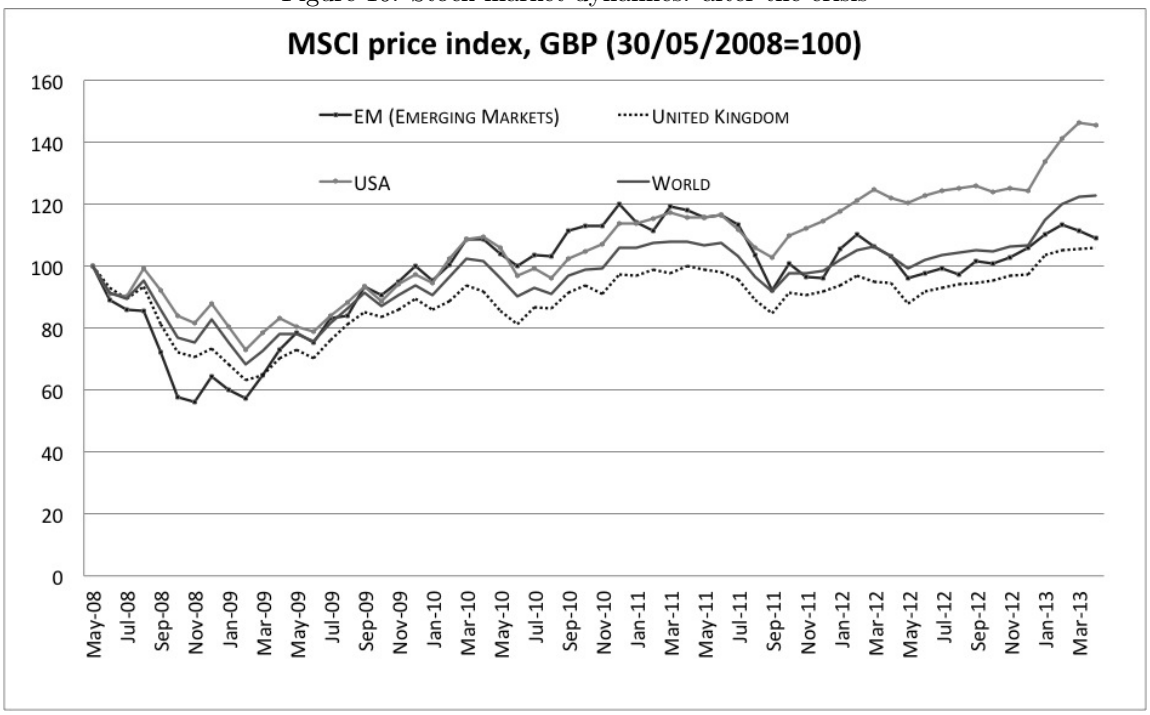
Since 2000, advanced economies have experienced two big financial crisis in 2001-2002 and 2008, which have had damaging effects on both financial asset prices, and subsequently returns and interest rates.

Figure 15: Stock Market dynamics



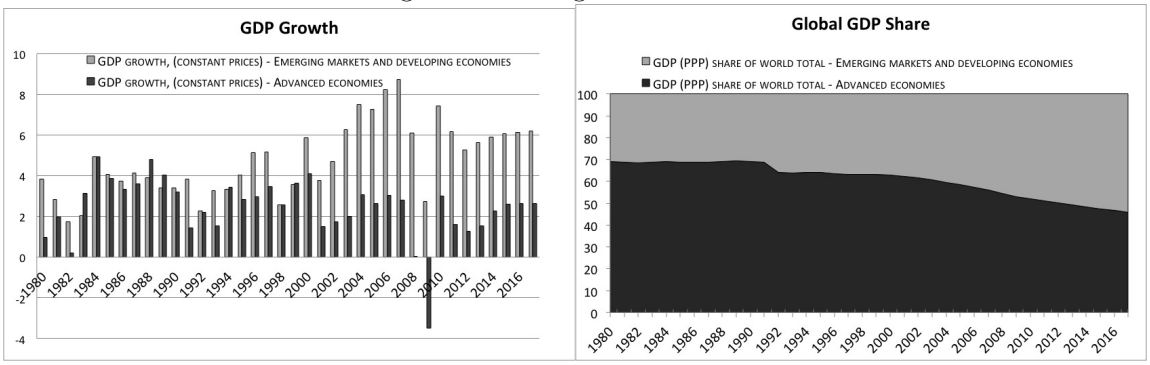
Source: MSCI

Figure 16: Stock market dynamics: after the crisis



Source: MSCI

Figure 17: GDP growth and share



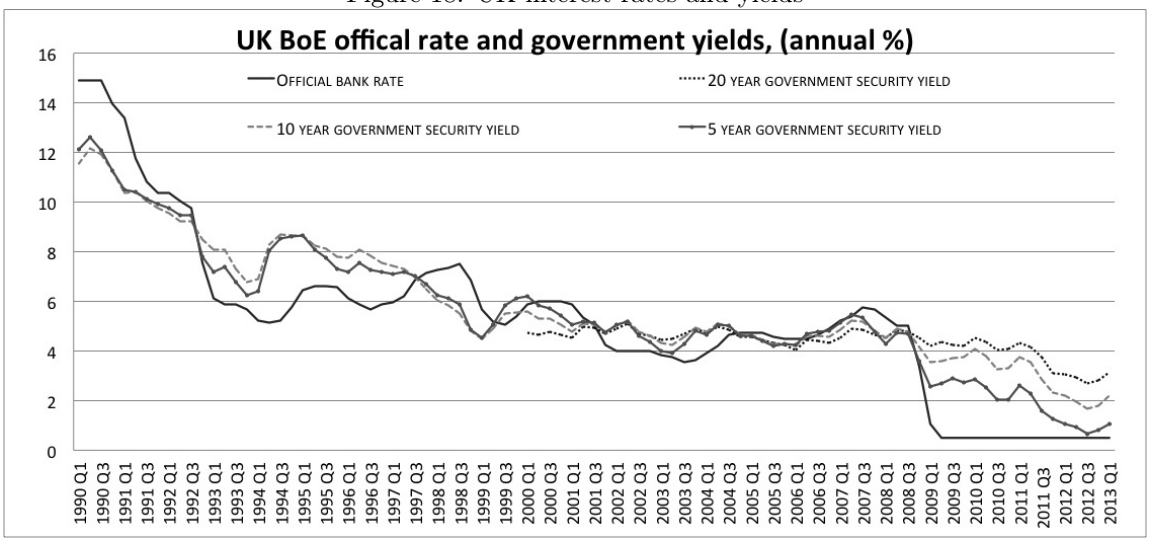
Source: IMF WEO

Figure 15 shows the comparative stock market performance of emerging markets and other advanced markets. Emerging stock markets seems to have experienced a rally in the 2002-2007 period,

outperforming advanced countries and global trends. They were heavily hit by the 2008 crisis but have recovered relatively quickly since. However, their post-crisis performance appears less remarkable, as Figure **??**: shows: emerging stock prices seem to follow more closely global trends and since late 2011 have been outperformed by the US stock market.

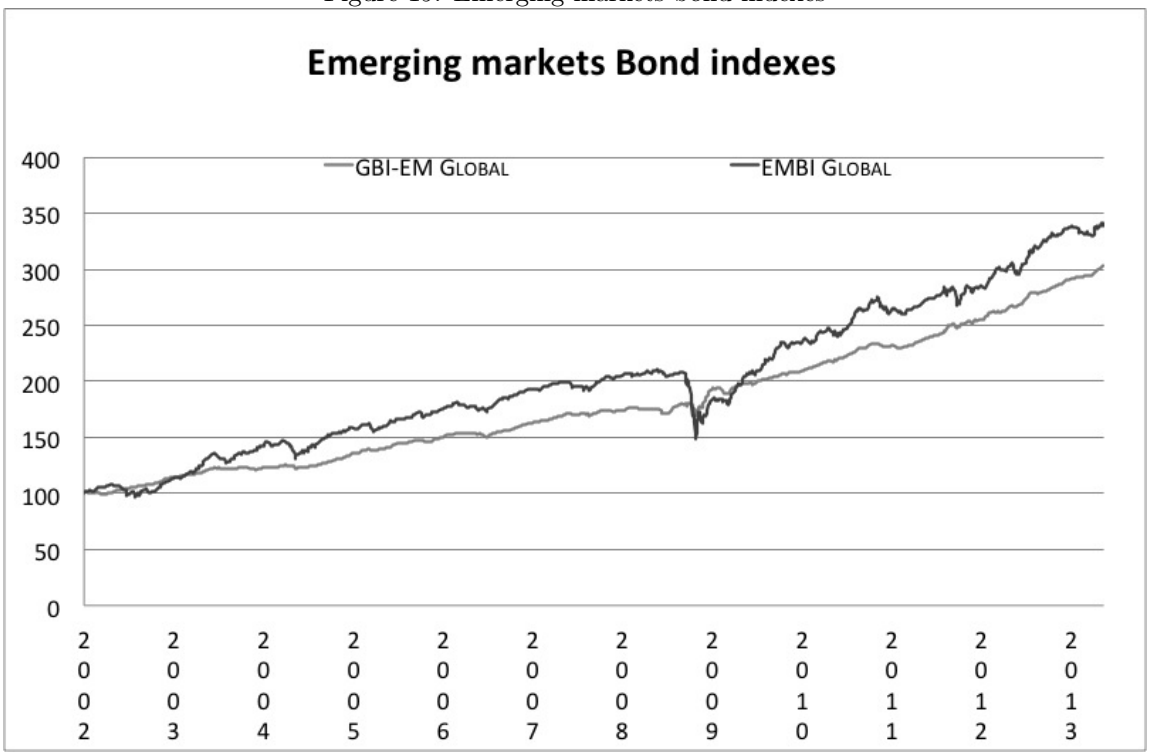
The comparison of these figures to the findings of the previous subsection suggests that UK institutional investors directly sought exposure to the well performing emerging stock markets in the 2002-2007 period. The more sober post-crisis environment, while potentially explaining part of the shift to emerging markets bonds, did not severely affect their exposure. This may be caused by the good growth performance of emerging markets vis-à-vis advanced economies: as Figure 17 shows, emerging markets have consistently grown more than advanced economies since 2000, and are projected to continue growing at around 6% on average in the next few years. As a result, the IMF predicts that from 2013 the emerging and developing economies share of global GDP will be higher than 50% for the first time in history. This could provide a justification for continuous exposure to stocks performing modestly since 2008.

Figure 18: UK interest rates and yields



Source: Bank of England

Figure 19: Emerging markets bond indexes



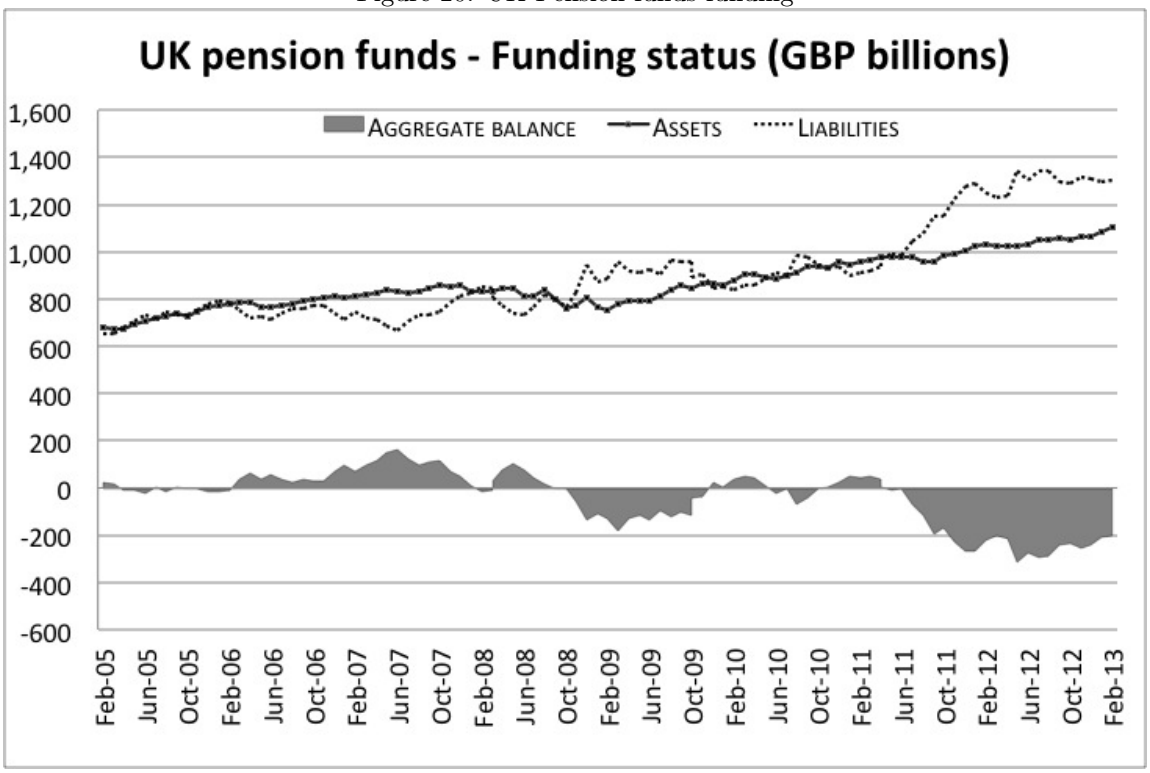
Source: Datastream

While advanced stock markets performed modestly but not excessively bearish, the picture looks different for fixed yield securities. As Figure 18 shows, UK yields have continued to fall over time, with the exception of the 2002-2007 period, generally following the dynamics of the central bank official rate. Particularly dramatic is the fall since 2009, when the official bank rate reached the bottom rate of 0.5%. Government yields also fell, also due to quantitative easing policies, reaching the lowest point in late 2012, when 10 years government bond came to yield less then 2% annually. On the other hand, emerging markets bond performed very well over the period, and continue do so after the crisis, as both the local currency (GBI) and dollar-denominated bonds (EMBI) indexes raised by more than 50% since 2009 (Figure 19).

The second channel referred to the liability and cash flows structure as a driver of investment

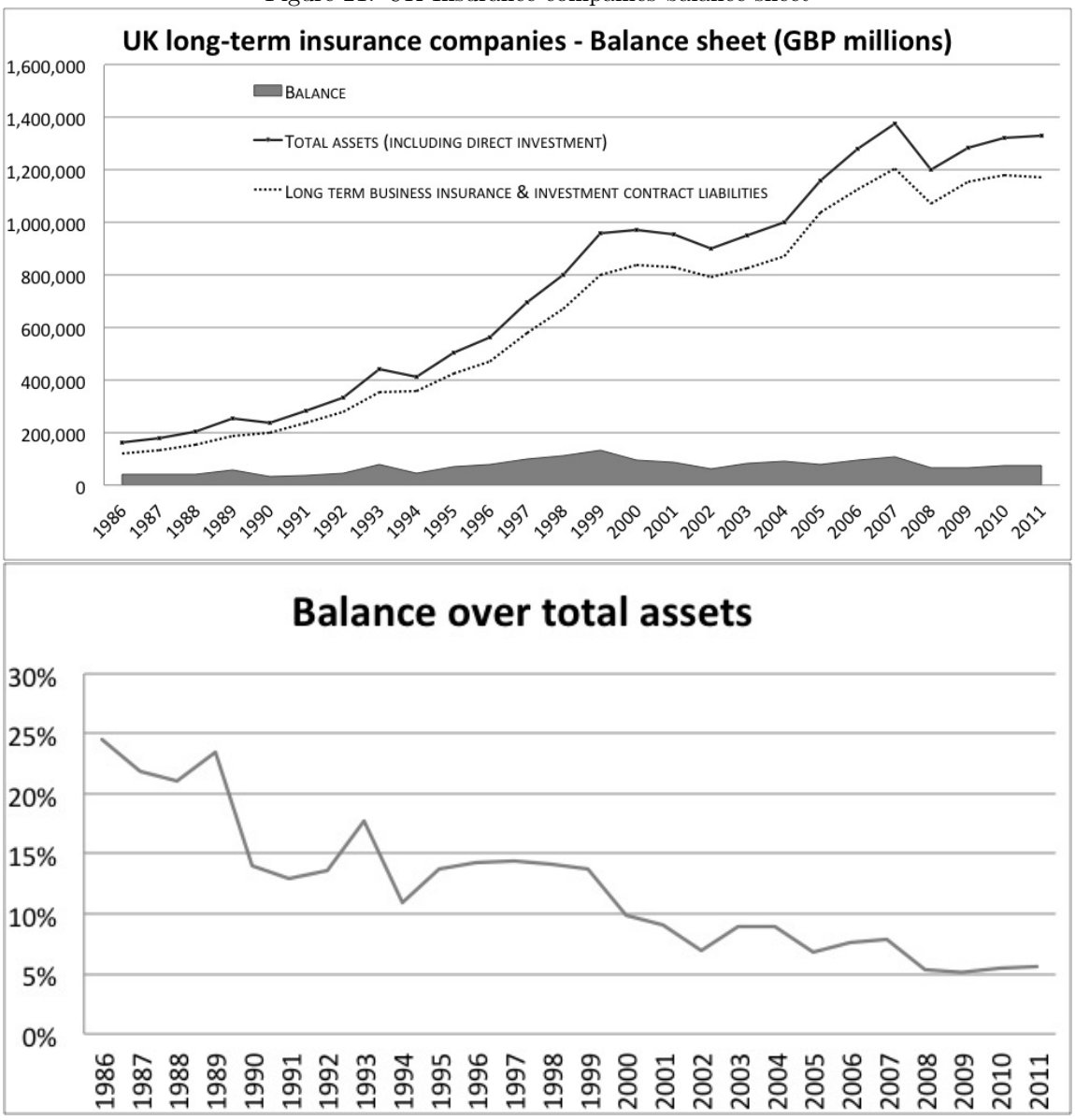
choice.

Figure 20: UK Pension funds funding



Source: Pension Protection Fund through ONS

Figure 21: UK Insurance companies balance sheet



Source: ONS

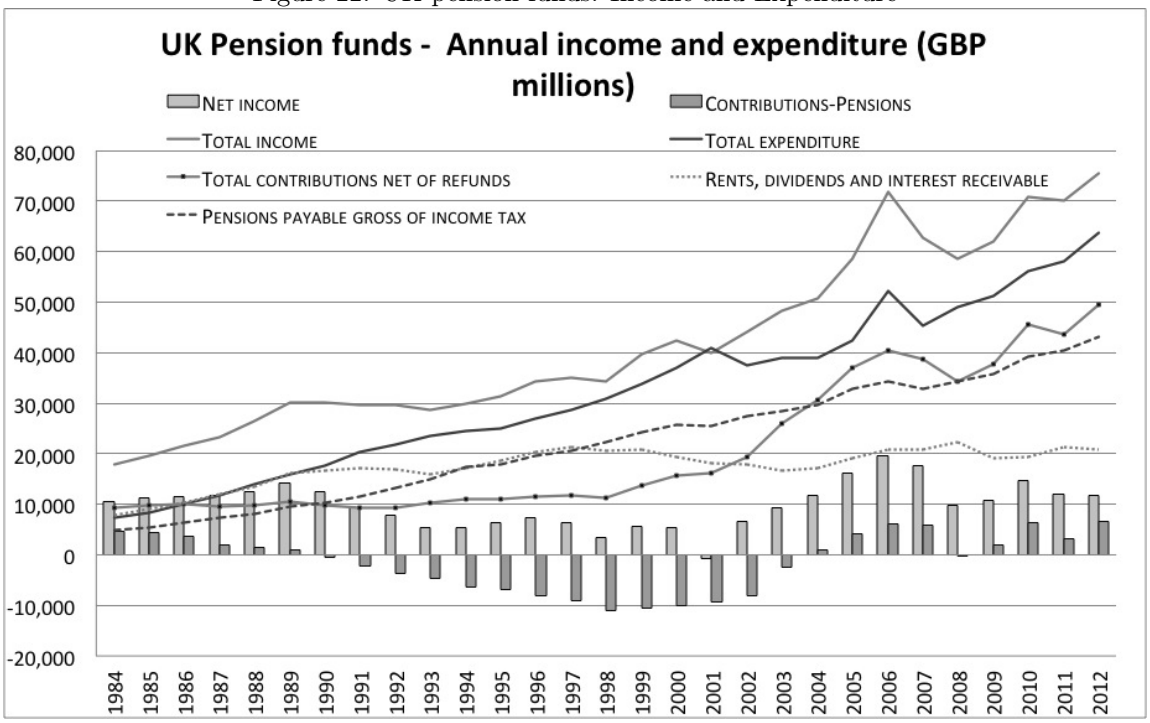
Figure 20 shows the funding status of UK defined benefits pension funds. It is important to stress that it is extremely hard to calculate liabilities of a defined benefits scheme. As mentioned in

the previous section, they represent the present value of future payable pensions. But there are difficulties in estimating precise future pension streams, that depend on final salaries of employees and contribution years, and in determining the appropriate rate of discount. In Figure 20 liabilities are calculated through the so-called s179 method, that is estimating the cost of buying Pension Protection Funds[15] benefits through an insurance contract. Despite these caveats, the picture gives a clear indication that before the outbreak of the global financial crisis pension funds were in a surplus position. The fall in asset levels pushed the underfunding position in the late 2008-2009 period. Recovering assets and and falling liabilities, due to changing accounting regulation, pushed the position towards balance. However, falling government bond yields, which are used a discount rate, made liabilities soar, in 2011.

Figure 21 shows data for long-term (life) insurance companies balance sheets. Insurance companies have to calculate their liabilities yearly for corporate tax purposes, so that the calculation of their liability is much less controversial than pension funds' and an aggregate negative balance, which would mean generalised insolvency within the industry, is unlikely. Over the whole period the excess of assets over liability have remained roughly constant between 40 and 100 thousands GBP millions. However, when compared to total assets, this balance seems to have deteriorated substantially, from 25% to about 5%, suggesting thiner margins of safety against the exposure to asset price movements. A decline of 5% in assets without any change in liabilities would completely offset this positive balance. As a mean of comparison, the fall in insurance companies asset prices in 2008 was about 12%.

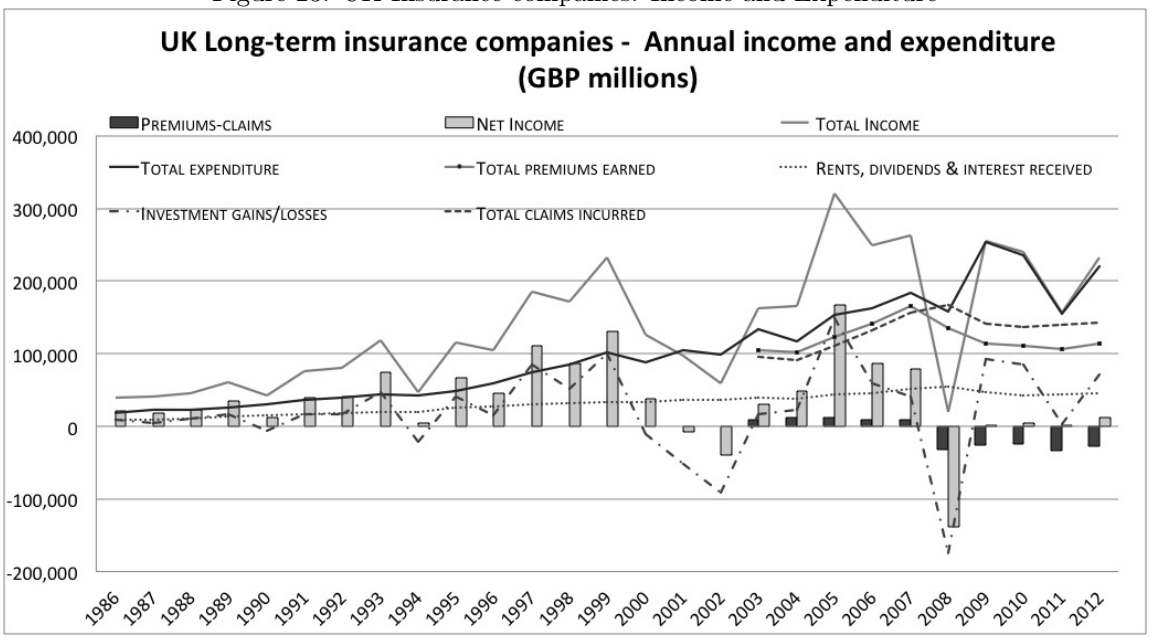
[15]"The Pension Protection Fund was established to pay compensation to members of eligible defined benefit pension schemes, when there is a qualifying insolvency event in relation to the employer and where there are insufficient assets in the pension scheme to cover Pension Protection Fund levels of compensation". See http://www.pensionprotectionfund.org.uk/Pages/homepage.aspx

Figure 22: UK pension funds: Income and Expenditure



Source: ONS

Figure 23: UK Insurance companies: Income and Expenditure



Source: ONS

Figure 22 and Figure 23 show income and expenditure for pension funds and long-term (life) insurance companies. During the 90's up to 2002, pension funds had generally a negative contribution-pension balance, but still experienced positive net income. This situation was sustained by good investment returns - most likely including (unrealised) capital gains accrued during the long stock market boom (1987-2001), which however do not appear in the income statements -. Total income seems to move along with the investment income line. In 2001 however, for the first time pension funds experienced a negative net income. As a result, contributions increased steeply in the following years, due to deliberate increase in contributions rates, which brought the net income balances to positive levels. Moreover, since 2004, the contributions-pension balance became positive as well, suggesting that pension funds have structurally changed their behavior in favor of more prudent cash flows balances, where their expenditure is fully covered by contributions. As a matter of fact the total income line seems to be driven mostly by change in contribution levels instead of investment income. On the other hand investments returns have recovered to their high level in the late

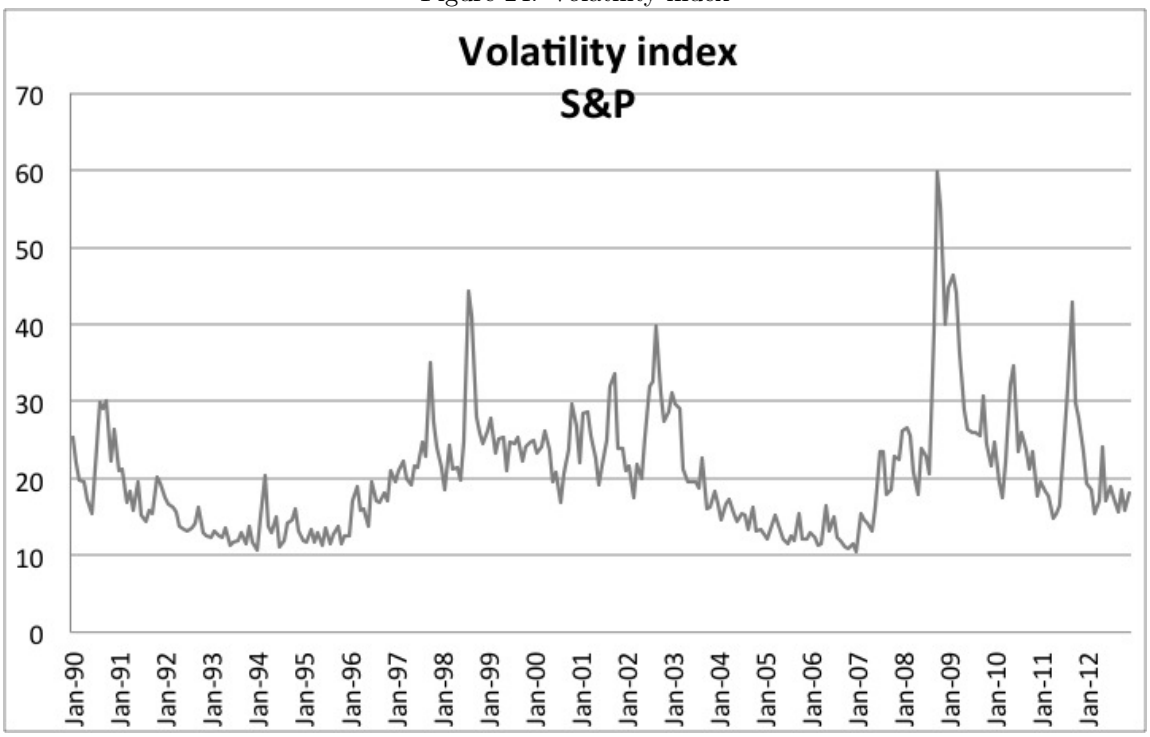
90's, but never manage to go much further than that. This suggests that, since 2002, pension funds have experienced lower return rates, as the growth on assets has not come with an equal increase in investment income. Such a result is not surprising given the sober (non-emerging) stock market performance in the 2000's and the decreasing bond yields.

Insurance companies data do take into account investment gains and losses as part of total income. Their income levels are essentially determined by these valuation changes over the whole considered period. A noticeable fact however is that while during the 2002-2007 period investment gains added to a positive balance between premiums earned and payments of claims, while after the crisis this balance became negative, making investment returns particularly important for their total cash flow balance. The divergence between total expenditure and claims payment since 2009 is on the other hand explainable by a the introduction of a sizable component denominated "other expenditure", which are not reported in the figure and deserve further analysis.

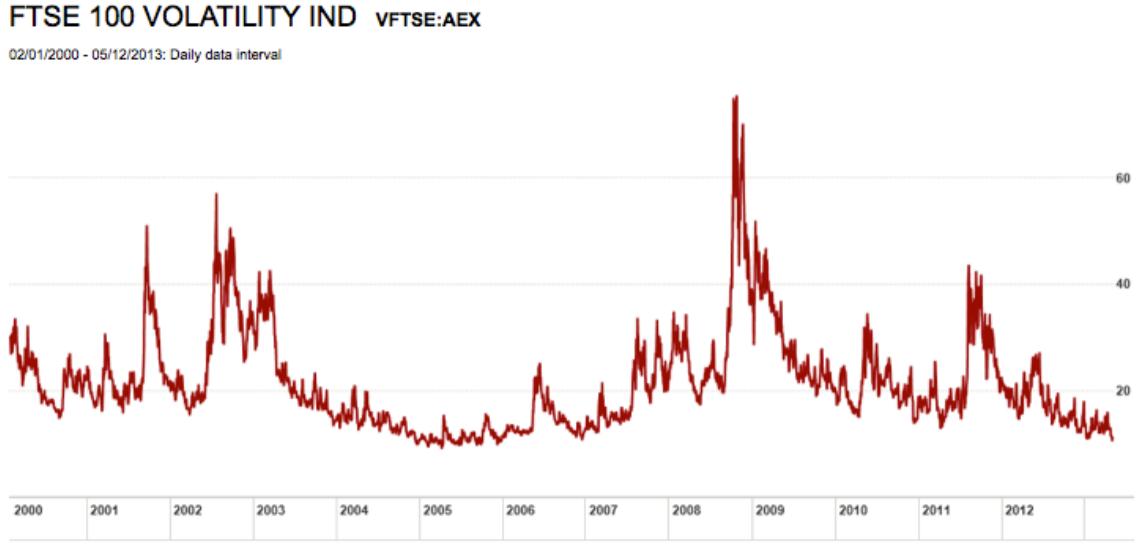
The overall picture suggests that UK institutional investors balance sheet and cash flow structure have generally speaking worsened over-time. In the case of pension funds this is reflected by an increasing underfunding of liabilities, due to asset losses and more recently to increasing liabilities as a result of low interest rates, and by their the lower investment returns after 2002, which have forced many pension funds to increase contribution rates to keep a balanced cash flow position. For insurance companies, the lower excess of assets over liabilities in relative terms, and their negative cash flow balance between premiums and claims represent a growing fragile structure.

The third proposed channel, the "state of bearishness" or general risk-aversion level, is hard to quantify. A commonly used measure is the so-called VIX, which is based on prices of options on the S&P index. As higher prices measures higher expected volatility of the underlying price assets, the measure is taken as a proxy for general perceived risk of US stock markets, and thus global financial conditions. Recently FTSE has released an equivalent volatility measure for the FTSE 100 index.

Figure 24: Volatility index



Source: Bloomberg and CBOE



Source: Financial Times

Figure 24 indicates how stock market booms are accompanied by lower volatility expectations, and conversely crises situations by fears of highly volatile prices. The S&P VIX present spikes in 1997-1998, during the East-Asian crisis, then remains at high level spiking again in 2002, with the burst of the dot.com bubble, and then again in 2008. The FTSE Volatility index follows very similar trends. The post-crisis era is characterised by a trend of decreasing price volatility, but through a highly unstable pattern suggesting a more volatile overall situation. What emerges from these pictures is a situation of higher general uncertainty in financial markets after the crisis: 2008 marked the end of an era of optimism and financial market stability, but while conditions have considerably improved from their negative peak in late 2008, a new "bull" era is yet to come. In such a situation a pattern towards moderate risk-taking is to be expected.

In addition to general state of risk aversion, institutional investors may have structurally changed their attitude to risk management and portfolio choice. There is widespread acknowledgment that modern portfolio theory was not of much use during the crisis, as diversification failed as a mechanism to avoid losses when all financial markets became all of a sudden almost perfectly correlated, i.e. they crashed all together (IMF, 2011). Some institutions have in fact started to adopt new asset allocations strategies, based on the so call risk-factor approach, according to which portfolio diversification should be based on an optimal combination of exposure to different risk categories rather than asset classes(IMF, 2011; Page and Taborsky, 2011). This theory is based on the evidence of low correlation between risk factors, an in particular their resilience during episodes of turbulence, as opposed to traditional assets. Whether this is a truly path-breaking new system of allocation or a slightly modified version of the standard mean-variance framework remains nonetheless to be seen (Lee, 2011). The 300 Club, a group of leading investment professional, has strongly put forward the view that financial investment practices need to go through more fundamental changes. Rajan (2012) goes as far as to say that the CAPM and the efficient market hypothesis "promoted a world view detached from the on-the-ground reality... for they rode on the back of the strong pro-market anti-regulation sentiment unleashed by the Thatcher-Reagan era in which faith mattered more than facts." Institutional investors should take a more holistic approach to

investment that acknowledges the inherently dynamic nature of risk-appetite, which is a dynamic function of wealth and risk-premia, as opposed to the static risk-averse utility functions employed by modern portfolio theory (Brown, 2013).

Finally, as with the fourth channel, regulations changes may affect the behavior of investors. The BIS (2007) has emphasised how regulatory changes may increase the demand for alternative assets. While regulatory changes towards marked-to-market accounting had induced a general shift towards more conservative liability-driven investments, "in the context of low interest rates, institutional investors may be tempted to deviate from pure ALM [asset-liability-management] and search for yield. They may adopt core-satellite structures in portfolio management, in which they cover a large part of their liabilities with traditional portfolio allocation strategies (e.g. bond/equity index tracking) and try to achieve "extra" returns by investing smaller parts of portfolios in alternative assets (e.g. *emerging market assets*, hedge funds, commodities, credit derivatives and infrastructure)." (p.27, emphasis added). source potential change of institutional investors towards a more short-term oriented behavior. of non-core portfolio towards riskier assets.

The importance of regulations such as Solvency II and new accounting rules is highlighted by the IMF (2011) an the BIS (2011) as a potential source of a major shift in asset allocation strategies. These regulations tend to push pension funds and insurance companies towards safer low-yielding government bonds, effectively making them more short-term oriented. Furthermore, in the current low-yield environment, it may push their non-core allocation towards risker assets:

> "The pressure to enhance yields in the low interest rate environment is growing, and the requirement for insurance companies to hold the bulk of their assets in safe, low-yielding assets may push them to become more aggressive with the remainder of their portfolio and may shorten their investment perspective. Their investment behavior regarding this risky part of their portfolio might well become more volatile, leading to a risk of sudden reversals in some less liquid markets, including in emerging economies." (IMF, 2011, p. 80)

In conclusion, UK institutional investors have faced, since 2002 a worsening investment climate,

with sober stock markets and declining interest rates. The macroeconomic and financial environment after the global financial crisis has further worsened investment opportunities, with advanced markets experiencing low growth and extremely low interest rates as a result of expansive monetary policy. The post-crisis attitude of institutional investors toward risk is certainly not "bullish" and many of them have started to question the validity of standard mean-variance approaches to risk management and are actively searching for alternatives. This situation have come with worsening balance sheets and cash inflows conditions for both pension funds, facing high levels of underfunding, and long-term insurance companies with negative balances between claims and premia. Additionally, regulatory changes are pushing institutional investors towards more short-term liability driven investments strategies and higher allocations towards low-yieldings government bonds, but at the same time their non-core portfolio is becoming riskier.

8 Conclusion

This paper has put forward an alternative approach for the analysis of capital flows. It has been argued that, despite some recent developments, conventional theories, being ultimately based the loanable funds approach, are not adequate to analyse international capital flows.

By assessing the debates on money in the post-Keyensian literature this chapter has then argued that capital flows need be analysed within a "monetary economy" framework, where money is part of the analysis from the beginning, as opposed to entering as a "friction" in more sophisticated levels of analysis. This view implies recognising that money is both a stock and a flow, a view that mirrors the traditional distinction of money as a store of value and money as purchasing power. The supply of credit money as purchasing power - and primarily to finance investment - and the demand for liquid assets as store value - for either speculative or precautionary reasons - are a central component of a capitalist economy. Liquidity preference is thus understood as a theory of asset choice, that is relevant for all the macro-sectors in the economy. Particularly useful in this sense is Minsky's Wall Street paradigm, that conceptualise economic units as balance sheets, whose

assets generate cash flows and liabilities generate cash commitments.

In the context of the open economy, capital flows need therefore to be understood as international "flows of funds" between units as opposed to real resources flows. In this sense, the traditional analysis of capital flows on the basis of current accounts is particularly limited, as it only analyse a very small part of capital flows, namely the part that settles trade transactions (income and balance sheet flows in Minsky's terminology). However, flows unrelated to trade (portfolio flows in Minsky's terminology) have surged in the past decade, most of which also originate in offsetting figures in the capital account. Hence the need to focus on gross as opposed to net capital flows.

Then the paper has proceeded to analyse which important developments in the institutional structure of western capitalism, particularly in the financial sector, are relevant for the understanding of gross capital flows. It was pointed out, on the basis of several different theories, that a major structural development is the rise of institutional investors and their managers, as key actors in modern economies, so that some authors have called the present stage "money-manager" or "pension-fund" capitalism.

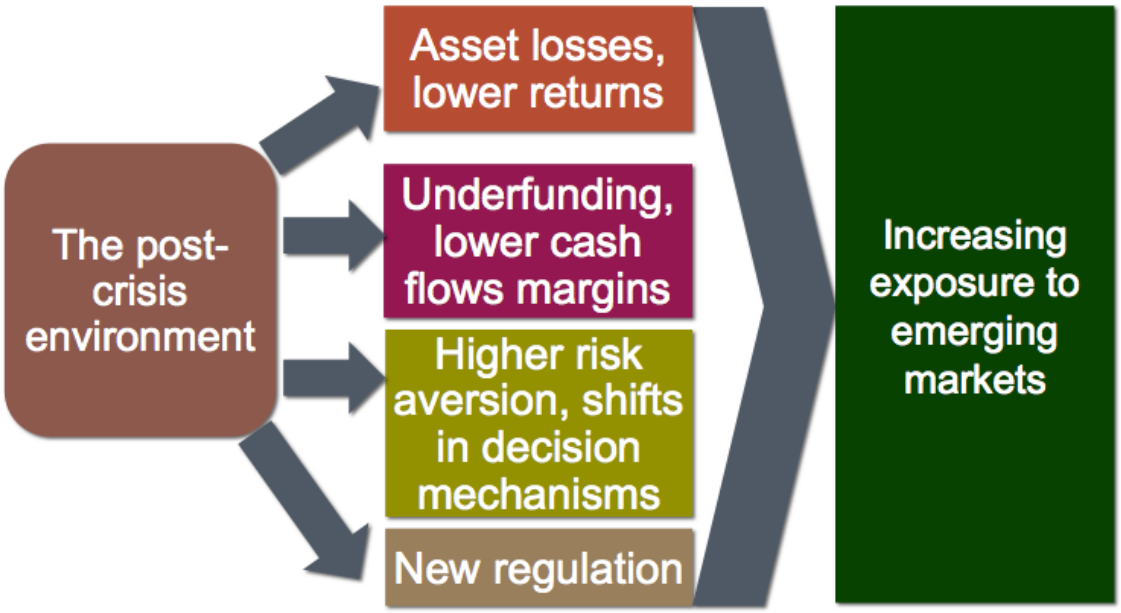
Finally, the chapter has analysed the rising role of institutional investors in light of the framework on gross capital flows discussed in previous sections. It was argued that gross capital flows to emerging markets may be understood as the result of "taking positions" by institutional investors in emerging markets assets. It was argued that the decisions by fund managers to invest in emerging markets are affected by economic factors through four channels: the asset characteristics, the liability and cash flows structure, their behavior and decision mechanisms, and regulation. The view expressed here argues that the analysis of the impact of recent events - such as the crisis - through these four channels may provide a useful framework to assess the current trends in capital flows to emerging markets.

The paper has also put forward some empirical evidence. Firstly it has sketched some of the feature of financial globalisation. It has pointed out that the structural expansion of cross-border holdings and the cyclical nature of capital flows. Emerging markets have only recently joined the process, and their integration appears to be mostly driven by foreign capital seeking their

assets, whereas a great deal of their investments abroad is in the form of foreign exchange reserves. Moreover, the 2008 crisis may have marked a structural break in the process globally, but not so for emerging markets, to which capital flows have quickly recovered to high levels. Importantly, these flows came at the time when emerging markets experienced current account surpluses. Secondly, it has highlighted the big shifts in UK institutional investors asset allocations. Since the early 2000's UK institutional investors have moved away from direct holdings of domestic equity towards a more balance portfolio allocations, with increasing proportions of indirect holdings of securities and international diversification. Emerging markets have constantly increased over-time representing a growing proportion of foreign assets. Again, these trends seem to have been reinforced in the post-crisis environment, particularly the allocation to emerging markets. Thirdly, it has described the changing environment for UK institutional investors. The weak macroeconomic conditions and low interest rates, coupled with increasing balance sheets and cash-inflows problem, make post-crisis environment an unpleasant situation for UK institutional investors. In addition to this, the epochal nature of the crisis, coupled with a general state of risk-aversion and in face of changing regulation, is pushing them to change their asset allocation decision mechanism.

All these factors seem to back up the simple story hypothesised in this paper. The current cycle of capital flows to emerging markets is being driven by active relocation of portfolio by institutional investors from advanced countries. The post-crisis economic environment, through the four channels explored, has reinforced some emerging tendencies in the 2000's, and is now leading insurance companies and pension funds, which constitute the core of advanced markets long-term institutional holdings, towards increasing their exposure to emerging markets assets (Figure 25)

Figure 25: A simple story



What are then the likely implication of such a trend for capital flows and financial globalisation? The future of financial integration is in fact a central theme of the post-crisis discussions, that fits in the broader issue of what will be of the role of finance in the coming years. As with many big questions, views vary considerably.

One possible scenario is the rise of the "Big Fish Small Pond" problem, coined by Andrew Haldane (2011): the "big fishes" are the investors from advanced countries that over-time increase their allocation to the "smallish ponds", i.e. the financial markets in emerging economies. As the metaphor implies, "as big fish enter the small pond, this can cause ripples right across the international monetary system, never more so than in today's financially interconnected world". In the simulation performed in the paper, capital flows to emerging markets are likely to intensify over the next few years, reaching striking figures compared to the size of some emerging countries' financial markets. In this way, "the global flow of funds could become an increasingly powerful

generator of global financial instabilities."

To the contrary, reports by the McKinsey institute (Roxburgh *et al.*, 2011; Lund *et al.*, 2013) or the Group of 30 (G30, 2013) show an almost opposite picture. The suppliers of long-term finance are currently being constrained by several reasons, such as the new regulations and the shift to defined contribution pensions. There is effectively an "emerging equity gap" between the supply and demand of equity-capital, particularly so in emerging markets that lack a domestic investors base. This may in fact signal the retreat of the financial globalisation phenomenon altogether, signs of which can already be seen in the fall of cross-border capital flows. While this view is based upon a loanable funds theory[16], which this paper has dismissed, a negative imbalance between equity demand by investor and equity securities supply by firms is undoubtedly a potential scenario for the future.

The preliminary evidence presented in this paper does not provide with particular support for either scenario. Future research will be also aimed at discerning between them and get a better picture of the future of financial globalisation.

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[16]See for example, "developing economies face massive investment needs as they urbanize and industrialize, but many will encounter a shortage of capital. Countries with high savings rates would find themselves with surplus capital but with too few good investment opportunities; savers and investors in these countries could face lower returns" (Lund *et al.*, 2013, p. 44) or more obviously "The financial system should channel savings from households and corporations into an adequate supply of financing with long maturities to meet the growing investment needs of the real economy" (G30, 2013, p. 8).

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