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FINANCIAL CONSTRAINTS AND THE SMALL OPEN ECONOMY

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Abstract

The thesis develops a new model of the small open economy emphasizing financial constraints, based on the notion of liquidity preference as a constraining tendency on the income adjustment process. Preference for liquid assets results in a number of financial states of constraint, such as financial vulnerability, financial exclusion and financial fragility. These are explored in a regional and international context.

Openness brings with it new opportunity as well as potential constraints. Models of small open economies have in general assumed away the latter and have neglected the consequences of financial openness. This is reflected in the absence of a means to identify economies as small and open on the basis of their financial exposure. The financial vulnerability index is developed to address this deficit. Applied to twenty-one countries, the index reveals that emerging countries can be classified as small open economies constrained by preference for liquid assets. Policies designed with the conventional approach to constraints in mind appear to be inappropriate for these countries.

The concept of constraints has rarely been dealt with explicitly and a possible categorisation of constraints for mainstream and Post Keynesian schools is developed. It proves to be a useful point of entry for grasping ontological differences between schools. It also provides insights into the constraining tendencies facing the small open economy, and how they can be managed. When these insights are applied to the South African economy, the current macroeconomic policy, and critiques thereof, are found to be wanting.

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Introduction

South Africa, the inspiration for the study, can be understood as a small open economy, with unemployment estimated at around 30 per cent. The mainstream conclusion is that wages are too high. In the 1930's, during the Great Depression, there was massive world-wide unemployment, with around 25 per cent of the labour force unemployed. The mainstream conclusion then was that wages were too high. Keynes's *General Theory of Employment, Interest and Money* (1936) rejected the mainstream version of that which constrains employment. Instead, Keynes put forward his monetary theory of production, in which the existence of a liquid asset (most notably, money) in a world of uncertainty created the possibility of general and widespread unemployment. Liquidity preference emerged as the soul of the *General Theory* (Shackle, 1974: 27). Keynes showed that effective demand (aggregate expenditure) determined the level of income, output and employment. If effective demand was insufficient to generate full employment, due to the preference to hold wealth in a liquid form, rather than invest it, then public investment expenditure could fill the gap.

Whereas the model developed in the *General Theory* was for a closed economy, South Africa is a small open economy, dependent on imported capital goods. If investment expenditure in South Africa increases, imports of capital goods rise, which creates balance of payments pressures. It has been argued that Keynes was fully aware of the likelihood of unemployment arising in an open economy, and in order to stress the generality of his theory, chose to set it in a closed economy framework (Milberg, forthcoming). Cast in these terms, it appears that a small open economy may be seen as more likely to experience unemployment than a large closed economy. It is clear that the solution of *General Theory* cannot be applied in a straightforward way to a small open economy that imports its capital goods. However, the

link between money and employment and the thesis that the existence of money creates the possibility for unemployment deserves further examination in a small open economy. This study can be seen as an attempt to explore the financial constraints contributing to persistent unemployment in a small open monetary economy.

The Post Keynesian literature was not as immediately generous toward my endeavours as I had hoped. The commonly-held conception of the balance of payments constraints in the Post Keynesian literature, for example, appeared to be based on an understanding of the trade account, so a country with a deficit on the current account of the balance of payments is seen as constrained. The experience of South Africa from 1985-1993 suggests that a *surplus* on the current account can also constrain the economy's investment and growth. By contrast, mainstream literature seemed to deny the existence of a balance of payments constraint, except to the extent that it reflects the saving gap.

It became clear that while the issue of constraints was taken for granted in mainstream literature, it was rarely explicitly addressed in the Post Keynesian literature. It appeared that before I pursued the theory of the small open economy further, I needed to begin to grapple with constraints in economic theory. The classification of different types of constraints was not immediately obvious, as it became apparent that a simple dualist approach could not be applied. Hence, while it is appealing to assert that mainstream constraints are about resource endowments or supply and Post Keynesian constraints about demand, this is to ignore the fundamental distinction, which stems from the differences in the ontologies of the two schools.

Exploration of small open economy models reveals that most economic theory is conducted with a closed economy in mind. Openness to foreign trade and financial flows is introduced as an afterthought and the potentially constraining consequences of openness are

underplayed. The dominant model of a small open economy is that of the small country, prevalent in the monetarist approach. Given the assumptions of an automatically adjusting economy, in which full employment is a premise of the model, openness to trade and financial flows allows the simultaneous achievement of internal and external balance. Post Keynesian theory shows that openness is not unequivocally benign once the assumptions associated with the theory of comparative advantage are dropped and the composition of imports is examined. However, these objections have yet to be incorporated into a Post Keynesian model for a small open economy.

In the Post Keynesian framework, we live in a world of uncertainty, in which risk is in general incalculable. We simply do not know what the future holds, or indeed the outcome of our actions. Shackle (1974: 27) has described this as "our essential, incurable and merciful un-knowledge of what may be the sequel of our choices of action". In order to cope with this, we place our faith in conventions and institutions, which help create a sense of order and continuity. Money is one of these institutions. However, given that money lulls our disquietude regarding uncertainty, wealth holders may hold money and liquid assets instead of investing, resulting in lower income and employment. Hence liquidity preference and perceptions of liquidity influence production and employment decisions. While this has been well considered for a closed economy, the implications of liquidity preference for open economies, particularly with reference to the financial account of the balance of payments, is not well established. When seen from the perspective of constraining tendencies, the relative neglect of financial flows appears to be an oversight.

The analysis begins with a comparison of the concept of constraints in mainstream and Post Keynesian theory. In chapter two, the Post Keynesian concept of constraints is further fleshed out with particular reference to money and liquidity preference. In chapter three,

Keynes's view that the banking sector plays a key role in the expansion in the economy is examined from the perspective of constraints developed above. Various financial states of constraint are considered. The conceptual framework of constraints developed in chapters one to three is applied to a small open economy in chapter four. The model of the small open economy$_{lp}$, in which the preference for liquidity tends to constrain the outcomes of the income adjustment process, emerges. Particular emphasis is placed on the financial account of the balance of payments. In chapter five, a possible means of identifying small open economies$_{lp}$, on the basis of their financial vulnerability, is developed. In the sixth chapter, three countries identified as financially vulnerable in chapter five are further examined. In the penultimate chapter, the South African economy is examined in the light of the understanding of constraints, openness and liquidity preference developed in the preceding chapters. Finally, the eighth chapter provides an overview of the themes and contributions of the piece.

1. Constraints in economic theory

1.1 Introduction

When considering the financial constraints experienced by a small open economy, it becomes apparent that the concept of constraint is not itself unproblematic. The purpose of this chapter is therefore to aim to clarify how the concept is to be applied to the subject at hand.

While the issue of constraints is generally taken for granted in mainstream literature, it is rarely explicitly addressed in heterodox literature. Nonetheless, supply side constraints and balance of payments constraints, for example, are different animals, seldom straying into each other's territory, although each may be identified by different theorists in the same economic environment. However, categorisation of schools of thought in terms of the constraints they identify is only part of the story. Differences in constraints reflect not only methodological differences but also different conceptions of economic reality. By way of introduction, the following discussion attempts to examine the ontological and epistemological background to the differences in constraints.

The mainstream project is categorised as a closed system approach, which reflects an ontology of a bounded reality, where the constituent parts of the system are known or potentially knowable (Dow, 1996:13). While this ontology (or theory of what is, or the essence of nature) is amenable to deterministic theorising, it has been criticised as fallacious (Lawson, 1997). In contrast with this, an open systems ontology may be described, which embraces a world of uncertainty, where the boundaries and the relationships between the constituent parts may be unknown, or unknowable (Dow, 1996: 14). Within this framework, it is no simple matter to identify enduring tendencies. By its very nature, the open systems ontology is not mono-track; within economics there are

different open systems ontologies, different because their focus differs – be it on the individual, class or institutions (Dow, forthcoming: 2). The ontology adopted has methodological implications, because it affects epistemology (the processes used to investigate the essence of nature). Hence the epistemology of a school of thought may be said to reflect its ontology; Einstein's model for constructing a scientific theory is instructive here.

Figure 1.1 Einstein's model for constructing a scientific theory
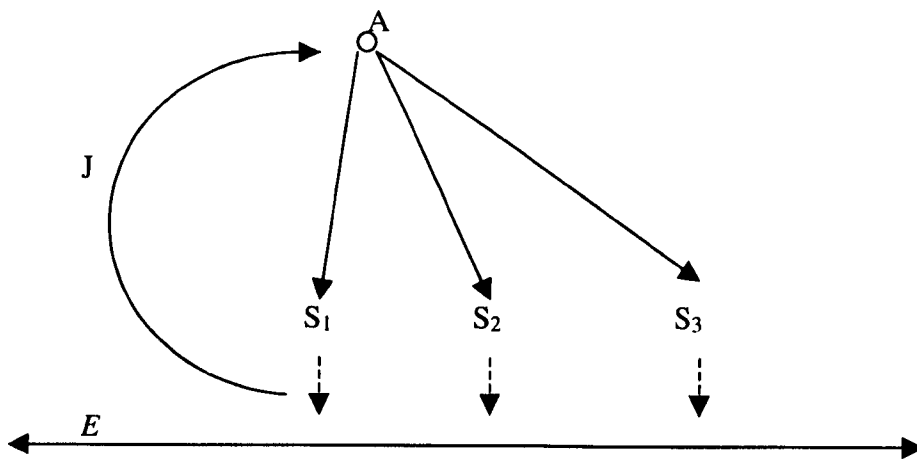
A theory's approach to constraints has much to do with how the scientific project is conceived. Einstein saw science as 'the attempt to make the chaotic diversity of our sense experience correspond to a logically uniform [unified] system of thought' (quoted in Holton, 1986: 32). In a sketch to a friend, Einstein expressed his conception of the process of development of such a system of thought (Figure 1.1). Einstein drew a line, E, (which may be seen to represent an infinite plane), which represents our sense experiences, above which is drawn a superstructure of axioms, A, and consequences or suppositions, S_1, S_2, S_3. The jump (J) from E to A is seen as intuitive, representing a bold leap, or a groping realisation, by which the process of theory construction emerges. There is 'no logical path from the E to A, but only an intuitive (psychological) connection, which is always "subject to revocation." ' (Einstein quoted in Holton, 1986: 33). The jump may be seen to reflect the ontology of the scientist. Whereas the axioms can be seen as inspirational, the

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consequences of A are developed by logical reasoning, hence the structure can be seen as a work of reason, which needs to be grounded in E.

The $S_1...S_n$ must be related to the E, to confirm whether the conclusions of the axioms are borne out in reality. This process or cycle of verification and checking of the J, A and S stages needs to be reiterated, as, even if the predictions of the axioms are borne out, the axioms may still be wrong. Hence a theory is never proven, although it may become more plausible, the more it appears to gain explanatory power. The growth of a theory requires cycles of progressive adaptation as the interplay of thought and sense experiences gradually allows the theory to be recast in more generalised terms. Hence 'neither thought by itself nor sensory experience by itself leads to reliable human knowledge' (ibid. 46).

Einstein's construct alerts us to the distinction between reality, our experience of it, and the constructed theory. From the infinite plane of sense experiences, there are an infinite number of possible axioms to account for them (ibid. 38). This suggests that our theories are underdetermined by the data. Keynes (1973b: 296) reminds us,

> 'Economics is the science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world. It is compelled to be this, because, unlike the typical natural science, the material to which it is applied is, in too many respects, not homogenous through time.'

However, there are constraints on theory selection, which help prevent the A's floating away from the E like bubbles (Holton, 1986: 37). Concepts should be clearly defined in terms of objects and the rules which govern these objects, and concepts should be frugal and simple. And then, of course, they must undergo the rigour of cycles of progressive adaptation. While Einstein felt that the conclusions of a theory should be repeatedly examined against empirical reality, he was averse to *ad hocery* to justify a set of axioms. Rather, in the face of stubborn and repeated disconfirmation, a theory should be abandoned

(ibid. 42).

Although Einstein's conception of the process of system construction uses the language of the empirical, rather than the actual and real (a language adopted by Bhaskar (1975:13) to explain deeper events and mechanisms), his system can be characterised as an open systems approach. A number of aspects point to this: The interplay of intuition and thought, the awareness of the possibility of an infinite number of axiomatic systems to account for experience and the method of progressive adaptation, all speak of an open, rather than bounded, conceptualisation of nature. The process of repeated cycles of confirmation of a theory in order to allow its generalisation is born of an awareness of the number of competing theories. An open systems ontology is a powerful motivator of the methodology of repeated questioning, testing and verification of the explanatory power of theories.

Once the theory has been conceived, it begins to play a role of its own. A vignette repeated by Holton (ibid. 149) reminds us of this. The account concerns a conversation between a young Heisenberg and Einstein. Enthusiastically, Heisenberg explains that his atomic model is built only on the direct results of experimental observations, a philosophy he believes was used by Einstein himself in fashioning his theory of relativity. Einstein replies, 'This may have been my philosophy, but it is nonsense all the same. It is never possible to introduce only observable quantities in a theory. It is the theory, which decides what can be observed.' Heisenberg adds 'Einstein was of course right. Indeed, I myself showed in the paper on the uncertainty relations, written soon afterwards, that the theory even decides what we *cannot* observe.' (Heisenberg, quoted in Holton, ibid. 149).

While it appears that the ontology and related epistemology of the theorist provide the bounds (constraints) within which the content and the construct of the theory are developed, the theory in turn may constrain what is recognised by the theorist at the E level. Smith's essay on the *History of Astronomy* (1795 (1963)) alerts us to a case in point. The dominance

of the Ptolemic system of planetary movements for centuries can be seen as the result of an overarching ontology of the natural order and perfect harmony of celestial bodies. The evidence, which we might now say challenged the system, was taken as evidence that the system was not fully described, and sphere after sphere was added to explain irregularities. The system of natural harmony was not challenged, however. The work of Copernicus introduced a sea change, in which the sun, rather than the earth, was placed at the centre of the universe, an idea that may have been suggested to Copernicus by the philosophy of old Pythagoreans (ibid. 126). The issue is left open whether the new Copernican system was the result of a new vision of the world - a new ontology - or a consequence of a new methodology for approaching planetary motion. Hence, while at times it is difficult to differentiate between the influence of ontology and epistemology, they nonetheless influence theory construction, and what is recognised by the theorist.

The discussion has sketched the background for the rest of the chapter, which explicitly compares the constraints identified in the neoclassical system and the Post Keynesian system. It appears that the constraints in theories derive from the ontological background against which they were fashioned, the epistemological approach inherent to such an ontology, and the requirements of the scientific discipline. These influences constrain both the construct and the content of the theory. However, the theory, too, begins to constrain that which is worthy of scientific recognition. This has implications for how economists tackle economic problems. Even when there is agreement between schools of thought at the E level, interpretations and prescriptions can diverge. The issue of involuntary unemployment is a case in point.

Consider the unemployment statistics for a country. While there may be agreement on the statistics, not all theorists will accept that this represents *involuntary* unemployment, as the data may be seen to simply reveal those who choose to remain out of formal unemployment. Hence the statistics themselves cannot define the existence of a problem or

manifestation of a constraint. Nonetheless, assume that there is agreement that a high level of unemployment is the manifestation of a real constraint or constraints on the economy. Hence there may be agreement concerning the manifestation of a constraint. A mainstream theorist, coming from an ontology where full employment is automatically achieved, may find evidence of inflexible wages and may attribute this to trade union activity or may see evidence of state regulations encouraging labour market inflexibility. Let us assume that, either way, inflexibility of wages is identified as the constraint, and we may refer to the evident constraint being inflexible wages. Evident constraints may have different causes such as trade union activity or state interference.

Faced with the same statistics, a Post Keynesian theorist may acknowledge the same trade union activity, but may not find this responsible for the measured unemployment. Instead, she may point to inadequate effective demand and, in particular, may identify the falling rate of investment expenditure in productive capacity as the evident constraint.

The distinction between the evident constraints identified by the two schools is a consequence of their different ontological conceptions: The identification of constraints is theory laden, in the sense that theory is grounded in a particular ontology. In Bhaskar's terms (1975: 13), while they may agree at the empirical level (the domain of experience and the manifestation of a constraint), the schools may differ in their understanding of the actual domain (associated with events) and the real domain (associated with mechanisms). In terms of Einstein's model, there may be, at best, agreement at the E level, but the jumps, axioms and conclusions differ.

The differences in approach to constraints require further explanation. The mainstream view is associated with a closed system in which the axioms, once established, perpetuate. The system is populated with rational individuals, motivated by utility maximisation. Within a general equilibrium model, all markets clear, including the labour market; there cannot be disequilibrium where all individuals are maximising and all

mutually advantageous exchanges have taken place (Dow, 1993: 71). Hence evidence of unemployment (or disequilibrium) can only be accounted for if there is a constraint (or spanner-in-the-works). The identification of an evident constraint arises from this understanding. Spanners-in-the-works are often of a generic type, such as asymmetrical information, which constrain individuals from making fully informed rational decisions. It may not be possible to identify spanners-in-the-works in the economy empirically, but appeals are made to commonsense – there is evidence of a constraint; hence there must be a spanner-in-the-works. Identification of these constraints sometimes takes on an appearance of *ad hoc* justifications, to protect the axioms of the theory. Hence in mainstream theory, the axioms can only account for full employment, to the limits of resources and technology. Unemployment is a manifestation of a spanner-in-the-works of the self-adjusting market mechanism.

The axioms (or rather, underlying processes) of the Post Keynesian open systems ontology reflect the institutional structure of the economy, as Keynes's distinction between a monetary entrepreneurial economy and a co-operative barter society suggests. In the Post Keynesian system, in a monetary production economy, the principle of effective demand, or income adjustment process, determines the level of income, output and employment. Constraints in this system are not seen as spanners-in-the-works called on to justify the failure of the system, but are the consequence of the operation of enabling or constraining tendencies on the system. The principle of effective demand, or income adjustment process, is subject to tendencies, such as liquidity preference, which may constrain the level of income, output and employment achieved. Liquidity preference may be seen as a constraining tendency. Because the system is open, and events may be the result of countervailing forces, the specifics influencing these tendencies are likely to vary with the context. While constraining tendencies may always operate, they may not always be manifest, as they may be countered by other tendencies (countervailing tendencies). So, for

example, during times of a booming economy and high levels of employment, preference for liquid assets may be low, with little impact on the income adjustment process.

In the remainder of the chapter, the above outline of constraints in mainstream and Post Keynesian economic theory is further fleshed out. In section two of the chapter, the mainstream view of constraints is set out focusing on supply endowments or budgets, bottleneck constraints and 'spanners-in-the–works'. In section three, the Post Keynesian view reveals the importance of money and liquidity preference in constraining expansion. The discussion reveals the problems of translation between the Post Keynesian and the mainstream concepts of constraint; an issue expanded in section four. What passes for a constraint in the one view, may be seen as a facilitator in the other. In addition, the approaches differ in terms of their respective approaches to the relationship between microeconomic and macroeconomic constraints. Finally, critical realist categories are used to set out the differences between the approaches.

1.2   Mainstream constraints

The scarcity definition of resources in mainstream neoclassical theory has come to define economics, and in this view, economics is about reconciling unlimited wants within the constraint of insufficient means. In the mainstream view, in the long run at least, full employment is achieved automatically by the self-adjusting mechanisms of a free-market economy. From this perspective, the constraints on the system are the initial resource endowments and technology; the market mechanism will allocate these resources to achieve a full employment solution, unless there are market imperfections, or spanners-in-the-works. In this view, economics is seen to be about economising, given supply constraints, preferences and the prices generated by market forces.

The discussion that follows attempts to draw out the main characteristics of constraints within the broad category of economics embraced by the terms, 'orthodox',

'mainstream' and 'neoclassical', which will be used interchangeably here. Orthodox textbooks follow the Robbins (1932: 16) definition of economics as 'the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses'. Hence economics is seen in terms of optimising the allocation of scarce resources (Lipsey, Steiner & Purvis, 1987: 3), or maximising satisfaction of wants through the efficient utilisation of limited productive resources (McConnell, 1984:1). Graphically, scarcity is shown by a boundary that separates the attainable from the unattainable. This is in keeping with the dualist methodological approach of the neoclassical theorists (Dow, 1997a: 85) - in the same way that a proposition is true or false - a level of output can be attainable or unattainable.

Constraints create the boundaries of the model; they create the framework within which the economic processes of the model operate. These supply or resource constraints define the opportunity set of the model (Stiglitz, 1993: 37) and will be referred to as endowments. Once the endowments and preferences are specified, the economy moves automatically towards full employment equilibrium (unless there are spanners-in-the-works). Hence endowments are associated with determinism in the model. Mainstream models of the economy are seen here as essentially closed systems. A closed theoretical system is one in which the boundaries, the relations, constituent variables and preferences are known (or at least knowable) to the agent and modeler (Dow, 1996:13 and van der Lecq, 1998: 206). Given their defined limits, closed systems lend themselves to formal expression (Chick and Dow, forthcoming), with expressions of concrete relationships captured as accounting identities.

The mainstream worldview of economics may be seen as a consequence of the fusing of the formal and substantive meanings of 'economic' (Polanyi, 1957). The *formal* concept of 'economic' embodies the scarcity principle and the need for choice given scarce means. Formal economics is about least cost, greatest output, solutions (ibid. 244). The *substantive*

concept of 'economic' is about 'what people do to provide themselves with the material means of achieving their ends' (Neale, 1982: 1180)[1]. The formal concept of economics, the scarcity concept, has come to be dominant. Polanyi (1957: 244) attributes this to the advent of the evolution of price-making markets in Western Europe and North America where the rules of choice apply. Hence economic activity is seen as a series of choices induced by the insufficiency of means made explicit by supply constraints (endowments). Economics is hence a sequence of acts of economising (ibid. 247). By contrast, the substantive conception of economics is about the study of *economies*, rather than economising (Neale, 1982: 1180).

The neoclassical theories of consumer choice and the individual firm derive from the formal conception of economics. The budget constraint (on individual endowment) separates that which is affordable from that which is not (Laidler and Estrin, 1989: 10), and hence the budget represents a constraint on the individual's choice. Faced with a finite, defined budget and market prices, the individual exercises her preferences in order to optimise her satisfaction. In terms of the 'individual experiment' (Patinkin, 1965: 12), the individual is at equilibrium, 'on' her budget line and is regarded as acting voluntarily (ibid. 314). If the individual's budget expanded (as the result of a change in the work/leisure decision or in the wage rate), she could move to a higher indifference curve, and achieve greater satisfaction. The budget remains a constraint although more is now affordable if prices are unchanged.

Endowments in economic models may be neither simple nor fixed, but rather may be expressed by convexity assumptions. In this case resources will either be limited or can only be produced at the cost of disutility, or other resources (Nell, 1992: 97). Here resource limitations are not absolute but relative; however, they still express the notion of scarcity. This may be clearer if we consider the case of an individual who may borrow to cover planned expenditure exceeding her budget. The price of the loan finance can be considered a

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[1] Robbins (1932:1-23) refers to this as the materialist conception of economics.

constraint, as is the individual's creditworthiness. If the loan is made, the easing of the current budget constraint tightens the budget constraint of the future, as the debt acquired now will have to be serviced in future.

Within the neoclassical framework, the understanding of the individual is generalised to the economy as a whole. Coddington (1976:1258) refers to this approach as *reductionist*, as market phenomena are reduced to individual choices. The approach leads to the conclusion that a position of general equilibrium is associated with all the agents in the model being on their budget constraints and acting voluntarily (Patinkin, 1965:314). Although Patinkin (1965:12) distinguishes between the market experiment and the individual experiment, here the market experiment becomes the sum of all the individual experiments. The resource constraint of the market or the economy can be seen as the sum of all individual budget curves within the market or economy, so the sum of all the micro endowments provides the macroeconomic endowment.

The reductionist approach is the logical extension of the axiomatic method adopted by the mainstream theory, in which the aggregate economy can be analysed as the outcome of the optimising behaviour of the smallest economic unit: the individual (Dow, 1996: 91). Within this framework, given her knowledge of the system, if a worker finds that she is unemployed, she has the power to negotiate a lower wage, which will generate greater demand for her services, and the labour market will clear. Within this framework of a co-operative economy (Torr, 1985: 83), there are no constraints to full employment, and hence all unemployment is voluntary, and simply reflects choice. In a *laissez faire* economy, the unfettered automatic mechanisms ensure a full employment solution.

In the same way that the budget constraint defines what is possible for the individual, the resource endowment or transformation curve defines that which is technically feasible for the aggregate economy (Joshi, 1970: 113). The Walsarian picture painted by the neoclassical approach is one of an economy constrained by its resource endowment, but

where the automatic mechanisms of self-adjustment ensure full employment of all productive resources. Hence the macroeconomic budget constraint or resource endowment *defines* full employment in the neoclassical model (Davidson, 1967: 574). Through the self-adjustment mechanism, an equilibrium of complete and efficient utilisation of resources (starting with the labour force) will be achieved (Caravale, 1992: 83). In this model, through the *tâtonnement* process, by flexible prices, both full employment and full capacity output are automatically achieved. Having resolved this issue, the model is required only to solve the allocation problem, and the question being asked is "What is being produced, and at what price?"

The bounded system ontology in mainstream theory leads to the dominant concept of constraints as resource endowments which determine the opportunity set for the individual or the production possibility set for the market (or economy). Essentially, be it from a micro, or macro, perspective, the system may be seen as supply constrained (Kaldor, 1975: 349).

Figure 1.2 The transformation curve
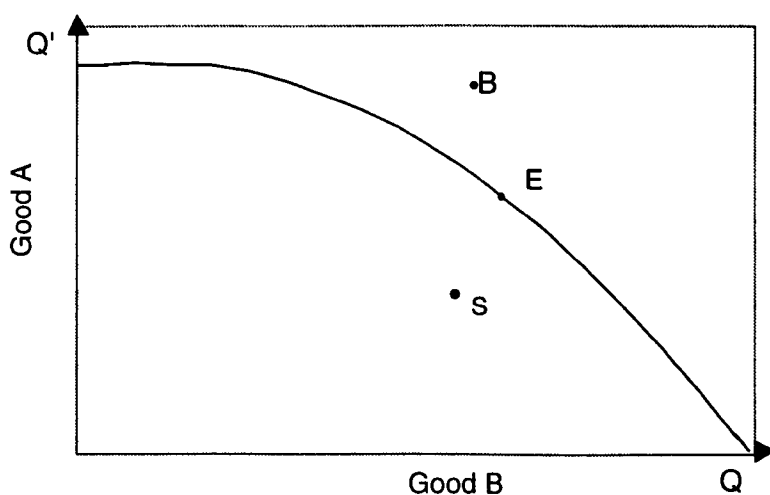
A useful construct to examine constraints in mainstream theory is the production possibilities frontier or transformation curve diagram. Figure 1.2 shows a transformation

curve with the maximum alternative combinations of two types of good that can be produced under conditions of full utilisation and best known technology for a particular economy (Salvatore, 1993: 34). By definition, if individuals are optimising their preferences, and there are no rigidities or inefficiencies in the system, the economy must be on the curve (such as point E). In this static framework, the economic question revolves around the relative availabilities of different goods. Positions on the curve implicitly reveal opportunity cost and hence the allocation dilemma: if more of Good A is absorbed, then a smaller quantity of Good B will be available – as all resources are being used efficiently. Price reflects relative scarcities and acts as the allocation mechanism. In this view, the transformation curve represents the resource endowment of the economy, and hence the overall supply constraint.

Based on the reasoning of the overall supply constraint, a shortage of any particular resource may be identified as a *bottleneck* constraint. The saving constraint of mainstream literature (McKinnon, 1964) arises from the national accounts identity. Given that all resources will always be utilised, the national income identity suggests that for more investment, say, more saving is required. A saving constraint may exist, for example, if the willingness and ability of an economy to mobilise its saving is seen as inadequate. We can begin to understand the notion of the saving constraint if we introduce state planners into the static framework (McKinnon, 1964: 371; Joshi, 1970: 111). From the perspective of state planners, the question being asked is "given that the economy is operating at a level defined by its resource endowment, what prevents further expansion of the production potential of the economy, and faster growth?" In this neoclassical conception, saving is identified as the bottleneck that prevents the production frontier of the economy from expanding further. Evaluation of the saving constraint is based on the *ex post* values of the national accounting identity $(I = S)$. The identity expresses the notion that, for more investment to take place, more saving must be forthcoming. This prior-saving approach (Studart, 1995: 5) reflects the

supply-constrained endowment approach. The saving constraint influences the *future* because it is being used with reference to the attainment of a position that is currently not technically feasible (Joshi, 1970:114), such as point B, in Figure 1.2. Planners in the model would like to replace the current private utility function with their social utility function - which would squeeze more consumption out of the system (ibid. 119).

The third type of constraint may be discussed with reference to a position such as S in Figure 1.2, a position below the curve. This is a position of misallocation or disequilibrium, brought about by rigidities or imperfections *(spanners-in-the-works)* in the system. A spanner-in-the-works represents an interference in the neoclassical model, that prevents the allocation mechanism (the invisible hand) from guiding the economy to full employment. Spanners-in-the-works shackle the wrists of the invisible hand. Identification of spanners-in-the-works reflects the economist's understanding of why misallocation occurs, and can be seen as a matter of judgment (ibid.).

A spanner-in-the-works is a justification for misallocation or disequilibrium based on the reasoning that, in a system that automatically adjusts to full employment equilibrium, misallocation must be the result of some interference. Responsibility for spanners-in-the-works is usually laid at the door of the government, although New Keynesians also identify spanners-in-the-works with information constraints arising in the private sector. These spanners-in-the-works affect the adjustment of the price mechanism by inhibiting responsiveness to both the level of and changes in demand (Sawyer, 1998: 205). Costs of information and costs of adjustment (such as menu costs) are associated with short-term inflexibility of the response of firms to changes in nominal demand.

Officially imposed spanners-in-the-works, such as a minimum wage, will prevent the wage rate falling as demand for labour declines. In the mainstream view, this impairs the ability of the worker to control her situation of employment. Without such spanners-in-the-works, a worker has the ability to ensure her continued employment by lowering her asking

wage. It is the worker, rather than the general economic situation, which is to blame if she remains unemployed. While a minimum wage may prevent the automatic tendencies towards market clearing from operating, the employers are still on their labour demand curves. Hence, strictly, they are acting voluntarily. Involuntary behaviour in the orthodox approach is restricted to a situation where agents in the model find themselves in a position where they are *off* their labour supply curves (Patinkin, 1965:315). In this case, workers are unable to undercut the minimum wage, and so will be acting involuntarily. (The supply curve for labour represents the maximum amount of labour offered at each wage, and at positions to the left of the curve, workers will still be willing to work even although 'they would *prefer* more employment' (Chick, 1983a: 73)). In the mainstream view, spanners-in-the-works such as inflexible wages may constrain the worker by restricting the capacity of the individual to control her state of employment.

To summarise, the categories of equilibrium constraint identified in mainstream theory are *supply constraints or endowments* which represent the limits or boundaries within which optimization take place, and *bottleneck constraints*, like the saving constraint, which refer to constraints on future expansion of the production potential of the economy. Both of these are essentially expressions of the underlying organising principle of mainstream theory – the self-adjusting market mechanism. They provide the bounds to the system, within which the market mechanism automatically ensures a full employment equilibrium. *Spanners-in-the-works* refer to impediments to the smooth functioning of this allocation mechanism and provide justification for why the full employment outcome of the allocation mechanism has not been realised. In the next section, the constraints in Post Keynesian theory are explored.

1.3 Post Keynesian constraining tendencies

While the income adjustment process that underlies an open systems conception of a monetary production economy does not rule out the possibility of full employment, it is not automatically generated. Unemployment is a possible and common outcome of the income adjustment process, or principle of effective demand. The principle of effective demand determines the utilisation of resources, rather than their allocation (Gerrard, 1995: 455). This is a world of 'unemployment and excess resources' (Keynes, 1940: 17) – a world of relative abundance of capital and labour. The determinism of endowments no longer applies. Whereas Keynes saw scarcity as being a problem only under the strictures of war, the normal circumstance of the economy was one of plenty (Keynes, 1940: 17). Keynes attempts to explain the significance of the world of plenty in a letter to Hawtrey (Keynes, 1973b: 26),

'if the propensity to consume is unchanged, an increase in investment will cause an increase in consumption. As against this the normal assumption of the classical theory is that an increase in investment will involve a *decrease* in consumption.'

Hence in a world of plenty, complementarity, rather than merely substitution, may exist: an increase in investment may lead to an increase in consumption; conversely, a decrease in investment may lead to a decrease in consumption. In the Post Keynesian view, the economic process is seen as one of accumulation and expansion of capital (and its distribution), rather than one of maximising utility (Shapiro, 1977: 559).

In this model, the principle of effective demand determines the level of employment and output in the economy. While the notion is accepted that, at full employment, the total output of a country will be determined by its productive capacity, since full employment is the exception, the determinism of scarce resources no longer applies. Rather, the utilisation of the available capacity is important. In the Post Keynesian model, constraining tendencies fetter the income adjustment process associated with the principle of effective demand so

that an equilibrium level below full employment equilibrium is generally determined. The Post Keynesian conception of equilibrium is associated with a position where the expectations of those with power in the model are satisfied (Chick, 1983a: 21). Hence equilibrium is a state of rest that is not necessarily one of market clearing, but 'a chosen position (on the part of those who can make decisions relevant for the economic system)' (Caravale, 1992: 93). Equilibrium is not achieved through automatic mechanisms but through a process referred to as the principle of effective demand.

The principle of effective demand is put through its paces in a monetary, entrepreneurial economy, characterised by uncertainty. In a simple economic model with an entrepreneur class and a worker class, it is the expectations of the entrepreneurs which determine the level of employment – as it is they who have the power to realise their investment and production decisions. The principle of effective demand determines the level of employment at the point of effective demand. The aggregate supply (Z) and aggregate demand (D) curves of the Keynesian model are associated with the expectations of actors in the economy. The aggregate supply curve represents the expected sales proceeds necessary for entrepreneurs to consider each level of employment (Keynes, 1936: 25). The aggregate demand curve represents the expected proceeds or expenditure at each level of employment (ibid.). Employment is determined at the intersection of the two curves, the point of effective demand.

In this model, it is the entrepreneurs whose expectations are reflected in the aggregate supply and demand curves (Keynes, 1936: 24), and so equilibrium is associated with the expectations of the entrepreneurs being met. The point of effective demand derived in the Keynesian model may not coincide with the market clearing position of the labour market as reflected by neoclassical curves (Torr, 1999: 258). Whereas, from an orthodox perspective, Keynesian equilibrium is a position *off* the classically derived labour demand and labour supply curves - and hence one of disequilibrium (Davidson, 1967: 561), equally, from the

Post Keynesian perspective, the classical equilibrium may be seen as one of disequilibrium (Torr, 1999: 258).

The principle of effective demand distinguishes between expenditure which is a function of income (and hence employment) and that which is not (Davidson, 1994: 25). In a closed economy, consumption expenditure may be used to represent spending out of income. As income increases, the propensity to consume may not increase to the same extent (Keynes, 1936: 27; Chick, 1983a: 111). Hence, as income rises, the marginal propensity to save rises more than proportionately. In the world of effective demand, saving is seen as forgone consumption and hence demand that is withheld. Because of this, Say's law (supply creates its own demand) is found wanting. Exogenous expenditure (investment expenditure in the closed economy) which is *not* determined by income, now becomes of interest – as it is all that is able to 'absorb the excess of total output over what the community chooses to consume when employment is at the given level' (Keynes, 1936: 27).

The principle of effective demand states that, given the level of consumption, the level of exogenous expenditure determines the level of employment. In a simple two-sector model, investment represents exogenous expenditure. Equilibrium in this model occurs where those with power in the model (i.e. the entrepreneurs who make investment decisions) are satisfied. As the model expands to incorporate other sectors, the power relations may change and different groups may be empowered. For example, as the model is expanded to include a financial sector, the expectations of the bankers, and to whom they grant access to finance, influences the level of employment determined by the economic process. Although entrepreneurs may wish to invest in capital plant, decisions by bankers may constrain them.

The environment in which expectations are formed in the Post Keynesian worldview is a monetary entrepreneurial economy, which goes through its paces in historical time. Uncertainty, rather than calculable risk, is fundamental to this system (Davidson, 1994). The

role of money in this type of economy sets the scene for equilibrium characterised by involuntary unemployment (Chick, 1983a: 294). In this type of economy, wealth holders have a choice between money (and highly liquid assets) and less liquid substitutes. Liquidity preference is the 'potentiality or functional tendency' (Keynes, 1936: 167) of the public to hold liquid assets. It is influenced by the expectations of both liquid and illiquid asset prices. The existence of liquid assets in a world of uncertainty means that the increase in the rate of investment may come to a stop prematurely. Hence liquidity preference is key to reducing the investment flow before full employment is reached (Shackle, 1989: 49). This occurs as wealth holders are likely to choose to hold those assets expected to reap the greatest return – often these may be financial rather than productive assets. Since the future is uncertain, wealth holders may choose to hold money – and stay liquid – hence allowing them to exploit future opportunities. This may have negative consequences for employment.

In the *General Theory*, it is not the lack of income in the aggregate which puts a stop to expansion before full employment is achieved, rather, those who have command over resources prefer to hold it in the form of liquid assets. The existence of liquid assets siphons-off purchasing power from productive activity (Chick, 1983b: 395). The existence of money, liquidity preference for it and power over it, contribute to a constraining tendency working within the process described by the principle of effective demand.

It is necessary to define what is meant by power here. In mainstream economics, power is essentially ignored. Markets are defined as collections of bilateral, voluntary trades and so the need for analysis of power is essentially obviated (Bartlett, 1989: 6). In a world of defined constraints and preferences, it appears to be of no concern to a rational agent whether a constraint is imposed by nature or by other self-interested individuals (Stewart, 1993:195). Although it may be accepted in the mainstream view that the distribution of the factors of production may be affected by power, it is generally assumed that the exchange of commodities and their prices are unaffected by power (Takata, 1995: 76). Takata (ibid.)

seeks to redress this by introducing an awareness of the operation of power, through social relations, into the explanation of price. While this may enrich the mainstream project, it mis-states the concept of power in terms of the Post Keynesian view of involuntary unemployment, as it relies on trade union power, expressed as resistance to a deduction in nominal wages, to explain unemployment (Takata, 1995: 163-4).

In the Post Keynesian framework developed here, power is associated with the capacity to realise one's expectations by giving effect to spending plans. In a monetary context 'those who possess or can borrow or are able to issue money are the ones who can give effect to their expenditure plans' (Chick, 1973: 147). It is these actors who have power in the economy. This appears to echo Galbraith's (1967(1991)) association of power, in the *New Industrial State,* with the control of the scarcest factor of production. The explicit discussion of power is not frequently encountered in Post Keynesian economics, but is implicitly acknowledged through the acceptance of the possibility of involuntary unemployment. The issue is one of relative power, rather than a question of absence or presence. As the model specification changes, say from a closed to an open economy, those who are able to give effect to their expenditure plans may change.

The operation of a monetary capitalist system - as represented by the principle of effective demand – takes place in the absence of an automatic mechanism which ensures aggregate demand will take up full capacity output (Sawyer, 1995: 19). The system is constrained when aggregate demand is insufficient and the income adjustment process associated with the principle of effective demand determines an equilibrium level below full employment. Hence if the expectations of those with power in the model are realised, the existence of involuntary unemployment is not sufficient to stimulate a change in the model. Involuntary unemployment may be seen as the manifestation of constraining tendencies operating on the economy and explains the 'paradox of poverty in the midst of plenty' (Keynes, 1936: 30). Full employment may be defined as 'the maximum level of

employment that can be reached by increasing aggregate demand' (Darity and Young, 1997: 24) and a situation where 'aggregate employment is inelastic in response to an increase in effective demand for its output' (Keynes, 1936: 26). At full employment, the system is unconstrained[2]. While full employment can exist in the Post Keynesian framework, it is the exceptional case, and hence the system is likely to be constrained by the insufficiency of aggregate demand, or other constraints on the income adjustment process.

Keynes's emphasis on effective demand, and that which constrains it, has resulted in a conception of equilibrium as demand-determined, rather than supply constrained (Palley, 1996: 26). This has tended to downplay the role of supply (see for example, Nell, 1992; Lavoie, 1992 and Palley, 1996). Nell (1992: 89) argues that demand has primacy and that, historically, supply has adapted to meet demand. Taken to its extreme, exclusive emphasis on demand has been associated with the wistful assumption that real resource constraints never impose themselves (Gibson and van Seventer, 1996b: 795). Whereas mainstream economics is seen as supply-constrained, Keynesian economics is seen as demand-constrained. However, this dualist construction is not appropriate to Keynes's open systems approach, and has the unfortunate consequence of restricting the principle of effective demand to a demand-constrained regime, which was not Keynes's intention (Davidson, 1998: 16-17).

Keynes's emphasis on demand may be seen as a device to distinguish his analysis from the mainstream focus on supply (Chick, 1983a: 82). Whereas supply endowments and constraints act as exogenous variables in mainstream economics, in Keynes's *General Theory*, the quality and quantity of capital equipment, for example, are 'given' (Gerrard, 1997: 189). The distinction between given and exogenous variables has to do with the theorist's consideration of which factors change slowly and which have a relatively small

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[2]Arestis (1992) points out that Post Keynesians are also aware of the income disparities which result from the unfettered activity of the capitalist system. So while constraints to employment are no longer of interest at full employment, constraints to equitable distribution may still exist.

short-term influence on the model, compared to those factors which exert a dominant influence on the economic model (Keynes, 1936: 247). As Gerrard (1997: 190) shows, it is largely the supply factors that are assigned the secondary role of 'givens' in the Keynesian system. Keynes acknowledges that this assignment is largely arbitrary, and is made based on the experience of the theorist (ibid. 247). Hence the assignment of endogenous and exogenous is not absolute in the partial analysis of the open system that is being developed (Dow, 1997b: 63).

However, while supply is given a secondary role, it is not seen as irrelevant. Both demand-side and supply-side considerations are seen as relevant to the achievement of full employment (Arestis and Marshall, 1995:13). As Hicks (1974:14) points out, an accommodating level of stocks must be assumed for the multiplier process associated with the principle of effective demand to play itself out. More significantly, though, the discussion of the point of effective demand – the intersection of the aggregate demand and supply curves - is essentially all about the production (and hence supply) decisions and expectations of entrepreneurs. Hence Keynes's conception of demand appears to embrace supply – rather than ignore it (Keynes, 1936: 24-25). Within the open systems conceptualisation of the monetary production economy, the principle of effective demand or the income adjustment process involves both demand and supply to determine an outcome. That this outcome may be at less than full employment has to do with the operation of constraining tendencies such as liquidity preference.

1.4   Constraints in mainstream and Post Keynesian theory compared

The discussion suggests that there are *problems of translation* in comparing the mainstream and Post Keynesian conception of constraints. Problems of translation arise between schools of thought when, although the vocabulary is shared, the meanings of words have little in common (Kregel, 1975: xvi). The ontology in which the theory is grounded

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reflects the understanding of the economist as to the dominant features of the economy being modeled (Keynes, 1973b: 296). The constraining tendencies associated with the principle of effective demand, including the existence of money, liquidity preference for it and the power of disposal over it, may result in involuntary unemployment. In the Post Keynesian view, an economy is constrained where involuntary unemployment obtains. In the mainstream view, an economy is constrained when it reaches the limit of its resources, that is, at full employment, or if the automatic allocation mechanism is constrained by spanners-in-the-works.

In the Post Keynesian view, once the banking sector has reached a stage of development where it can create credit, lack of prior saving should no longer frustrate expenditure plans. In this view, a shortage of saving cannot constrain the income adjustment process. However, as has been suggested above, the liquidity preference of those with command over resources has a tendency to constrain the level of employment achieved by the principle of effective demand.

Problems of translation also occur with reference to market imperfections. Some of the institutional features of the monetary production economy identified as market imperfections (or spanners-in-the-works) in the mainstream view, are fundamental to the functioning of the system in the non-ergodic, Post Keynesian world. Labour and financial contracts, for example, *enable* the market process in the modern capitalist system (Davidson, 1994: 87) and give it stability. Labour contracts provide an element of security and certainty with regard to a worker's monthly wage. By contrast, a worker who has to constantly change her wage rate in order to ensure her employment in the light of changing sales of the firm is afforded no such certainty. From the Post Keynesian perspective, then, labour contracts play a constructive role in the entrepreneurial economy (Shapiro, 1997:90). The price and wage flexibility characteristic of perfect competition would be inimical to investment decisions (and hence full employment) and would be more likely to be ruinous

for the economy, than lead to equilibrium (see Hirschman (1970); Sawyer (1995: 15) and Shapiro (1997: 85)).

In the Post Keynesian entrepreneurial economy, the labour market structures do not allow for the worker to re-negotiate her wage if she finds herself unemployed (Chick, 1983a: 21). Hence a minimum wage does not play the same spanner-in-the-works role as in the neoclassical, co-operative model: a minimum wage does not account for widespread involuntary unemployment in the aggregate. The workings of the macro-economy preclude the worker from having sole responsibility for her employment condition. While labour contracts ensure some level of stability, the worker remains dependent on the entrepreneur's expectations and hence the level of aggregate demand for her future employment. The labour contract, while providing some level of certainty for the worker, cannot protect the worker from massive layoffs when there are shocks to the system. Changes in entrepreneurial expectations in the light of shocks to the system may lead to the worker being laid off, in spite of a willingness to lower her wage rate. Control of her state of employment does not rest in the worker's hands. She remains dependent on and constrained by the constraints operating on the principle of effective demand.

A fundamental problem of translation between the schools (and indeed within the Post Keynesian school itself) is the issue of reductionism, where the whole is seen as the sum of its constituent parts. Whereas the macro constraints can be reduced to the sum of the spanners-in-the-works operating at the microeconomic level in the mainstream model, this is not the case in the Post Keynesian view. This has much to do with the open systems ontology of the Post Keynesian school. In the Post Keynesian world of uncertainty, there is no simple relationship between the constraints experienced at an individual level and macroeconomic constraints. The debate in Post Keynesian economics regarding the need for micro foundations appears to be a search for *ex ante* and *ex post* compatibility, or for a simple link between decision-making at the microeconomic level and the outcome of

decisions at a macroeconomic level (Chick, forthcoming: 1). There are problems with the reductionist view when aggregate groups such as households and firms are studied, as there are likely to be contradictory responses to events (Chick, 1983a: 37). But more significantly, the processes of consumption and investment are interactive processes. The decisions of an entrepreneur not to invest impacts not only on her workers and their consumption patterns, but also on other investors and on market and industry demand and supply. Hence, in an open system, which is by definition not atomistic, summing the micro constraints to get to the macro constraints is simply inappropriate.

The reductionist approach of mainstream theory means that a bottleneck constraint on investment such as a low level of saving in the economy can be addressed by encouraging lower levels of consumption by households. By contrast, the paradox of thrift exists in the Post Keynesian world, where the decisions of households to save for a future purchase constrain the investment decisions of the entrepreneur. In the aggregate then, the attempt by households to overcome future budgetary constraints will constrain employment and investment decisions affecting the future.

Kregel (1984) suggests that the distinction between the neoclassical and the Post Keynesian approaches to constraint lies in the relative emphasis on real and monetary factors. In discussing the possibility of a saving constraint, Kregel (ibid. 139-144) suggests that, in the neoclassical framework, the only possible constraints are features of the real – not monetary - economy. Saving is real rather than monetary, as it is only by foregoing consumption that growth of output can be expanded. In the Post Keynesian framework, since the direction of causality runs from investment to saving, saving can never be a constraint on growth of output. However, by the theory of liquidity preference, the price of money, or the money rate of interest, can influence the market rate of return on other assets and hence render some investment projects unprofitable. Hence the price of money is important, and if the banking system is unwilling (due to its own liquidity preference) to

meet the liquidity requirements of potential investors at the given rate of interest, then the system may be constrained from achieving full employment. Hence the financial sector and liquidity preference in exacerbating the business cycles in a capitalist economy may constrain the system.

Since the rate of interest is a monetary phenomenon (ibid. 148), Kregel sees the only legitimate constraint from the Post Keynesian view as a *monetary or liquidity* constraint (ibid. 139). The argument presented here has shown the existence of money, and liquidity preference for it, is a constraining tendency fundamental to the processes underlying the monetary production economy. Liquidity preference is an integral part of the income adjustment process, not comparable to the spanners-in-the-works of the mainstream approach. Since monetary and real factors are inextricably linked in the Post Keynesian worldview, constraints on full employment cannot be deemed to be of a monetary nature only. The interplay of real and monetary factors, together with which groups have command over resources, including liquidity, impacts on the principle of effective demand and the level of expenditure, output and employment achieved.

This gives rise to a distinction between the schools of thought in terms of the significance of access to liquidity. (While this will be discussed in Chapter three, a brief introduction is useful here as it introduces concepts that will be discussed at greater length in subsequent chapters.) In the mainstream view, if an individual is unable to find employment, self-employment is always an option. Indeed the cooperative economy appears to be populated exclusively by the self employed. This begs the question, will the 'bright, unknown, penniless entrepreneur' (Kirzner, 1979: 92) be unable to obtain finance?

In the mainstream view, with perfect capital markets, there are theoretically no constraints to such an entrepreneur gaining access to finance. However, the entrepreneur might have had no opportunity to demonstrate her ability. In this case, the failure of the entrepreneur to secure finance at the market rate of interest is proof of incomplete

information, the spanner-in-the-works. The entrepreneur may be able to obtain finance at a higher-than-market-rate-of-interest to compensate bankers for the likelihood that they may be financing a lemon. Lack of full disclosure on the part of the entrepreneur is the spanner-in-the-works, which prevents the perfect functioning of the capital market.

In the Post Keynesian view, liquidity preference of bankers is explicitly acknowledged (by at least some of the school). Since loans are illiquid, on the basis of their assessment of the entrepreneur's liquidity and risk, there may be no interest rate at which bankers are prepared to finance the entrepreneur. From the Post Keynesian perspective, this may be a result of financial exclusion of the cohort of borrowers represented by the entrepreneur, which is itself the result of the liquidity preference of those with command over financial resources. The constraining tendencies lead to a financial state of constraint, known as financial exclusion[3].

This issue will be further discussed in subsequent chapters, but it confirms the notion that fundamental to the identification of different constraints within these schools is their different ontologies and their related epistemologies. For this reason, while there may be agreement at the empirical level regarding statistics, it is unlikely that there would be agreement at any deeper level.

Hence it comes as no surprise that what is regarded as a manifestation of constraints, or what is identified as an evident constraint, is different between the schools. The discussion suggests that, in the mainstream view, spanners-in-the-works are essentially *ex post* justifications for the apparent failure of the market mechanism. In the post Keynesian system, the underlying processes of the model account for both full employment and unemployment outcomes; however, the outcome is seen as a complex of interactions between the real and monetary factors in the economy. Hence the

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[3] In Kirzner's view (ibid. 103), while bankers frequently misjudge the ability of entrepreneurs vying for credit, entrepreneurial competition between bankers tends to result in the correct assessment of the entrepreneur. However, it is suggested in the following chapters that there may be little competition between bankers to finance the 'penniless' cohort.

unemployment outcome is difficult to the attribute to one 'malfunctioning' factor. Lower investment expenditure is itself a result of a number of processes. The discussion has sought to underline liquidity preference as a constraining tendency of the monetary production economy. Liquidity preference lends itself to being identified as a constraining tendency, as it emphasizes the role of expectations and the interplay between real and monetary forces.

Table 1.1 attempts to set out how the different schools account for the economic outcomes of full employment and unemployment in terms of the three domains of reality identified by critical realists. These three categories are *empirical* (the domain of experience and impression), *actual* (actual events and states of affairs, in addition to the empirical) and the *real* (structures, mechanisms and tendencies, in addition to actual events and experiences) (Lawson, 1997:21). In this view, surface phenomena, such as slow productivity growth, which may be experienced at an empirical or actual level, are manifestations of the real underlying structures, in this case, a particular system of industrial relations. Table 1.1 examines how the two schools account for different employment outcomes in the actual and real domains.

The neoclassical view is set in a closed deterministic system. The underlying mechanism of all economic systems is, in the mainstream view, the market mechanism operating subject to the resource endowment. Proponents believe that the neoclassical model pertains to all economic systems, so that even where there is considerable state intervention, the underlying mechanism is the market although there are simultaneously many spanners-in-the-works. However, since, this is a closed deterministic system, causal laws of the real domain (the market mechanism) appear to be conflated with patterns of events of the actual domain (Bhaskar, 1975:18). Hence in Table 1.1 the domains of the actual and real are merged for the mainstream[4]. In the case of full employment, the market mechanism is

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[4] It could be argued that in the strict application of the critical realist definition, it is inappropriate to talk of the real

unimpaired by spanners-in-the-works. Where it is accepted that there is evidence of unemployment in the mainstream view, recourse is made to spanners-in-the-works, which are seen as evident constraints preventing the full employment outcome of the market mechanism. The underlying forces of the mainstream model cannot account for unemployment in mainstream theory without the addition of spanners-in-the-works. The table essentially deals with employment outcomes, rather than growth, so for this reason, bottleneck constraints are not included.

Table 1.1 Constraints in economic theory

Critical Realist Classification	Neoclassical economics		Post Keynesian Economics
Ontological base	Closed, deterministic system		Open, unbounded system
Type of economy	All economic systems		Monetary production economy
Domain of Empirical (Experience/ Impression)	Full employment	Unemployment	High or low unemployment
Domain of Actual (Event/ State of Affairs)	Absence of Spanners-in-the-works Unimpaired market mechanism subject to the resource endowment, ensures full employment	Spanners-in-works, such as inflexible wages and misinformation, impair the market mechanism resulting in unemployment	States of constraint, such as the inability to find work or secure finance, will be less or more apparent
Domain of Real (Underlying Structures/ Mechanisms)			Enabling and constraining tendencies: Principle of effective demand and liquidity preference

In the Post Keynesian view, in the real domain representing underlying structures, the principle of effective demand accounts for different employment outcomes. In Table 1.1, the extremes of full employment and unemployment are substituted with relatively high or low unemployment. (It is arguable that while feasible, full employment in the open Post Keynesian system is likely to be transitory.) The income adjustment process is the result of

domain in mainstream economics, as the system is closed, and has causal laws, rather than underlying structures. However, it is used here in the sense that the market mechanism is universal in mainstream economics.

various constraining and enabling tendencies; in a monetary production economy, liquidity preference is primary among these. Liquidity preference varies, for example, with the business cycle, and actual events, such as the inability to find work or obtain finance may be seen, for example, as real and financial states of constraint. Depending on whether there is high or low unemployment, incidence of these states of constraint, in the actual domain, will be higher or lower. The states of constraint are not necessary for the explanation of unemployment, but are seen as evidence of the underlying constraining tendencies. In an open system, with uncertainty, expectations of events may have consequences in constraining tendencies. Hence, as will be elaborated in chapters two and three, negative expectations may exacerbate constraining tendencies.

1.5 Conclusion

Searle (1995: 8-9) reminds us that ontology is related to what is, or to the arena of fact, and epistemology to the arena of provability and verification. In the ontological sense, we may have both objective and subjective entities. For example, a mountain is an ontologically objective entity, as its existence is independent of any perceiver. A back pain however, is ontologically subjective, as its existence depends being felt by a person. In an epistemic sense, the objective-subjective distinction indicates judgment. These concepts can be combined; in general anything that is observer-relative may be seen as ontologically subjective. While these categories are not always clear-cut, in Searle's terms, one might say that 'Five million South Africans are unemployed' is an epistemically objective claim about an ontologically subjective (observer-relative) statement. 'Five million South Africans are voluntarily unemployed' is an epistemically subjective claim about an ontologically subjective statement. Since much of the economic domain appears to be in the ontologically-subjective arena, agreement as to the existence of a constraint and its manifestation is likely to be uncommon.

The discussion suggests that the ontological differences between the closed systems approach of the mainstream and the open systems approach of Post Keynesian economics results in different, and not entirely comparable approaches to constraints. In mainstream economics, in equilibrium, the market mechanism is subject to the ultimate supply constraint or resource endowment. Where markets produce a less than perfectly efficient outcome, spanners-in-the-works, or market imperfections, are said to exist. These may not be empirically observable, and hence are referred to as evident constraints. Constraints on the growth of production are usually interpreted as bottleneck constraints on supply; in particular, the saving gap is frequently seen as the culprit.

In the Post Keynesian open system conceptualisation of a monetary production economy, the existence of money has an independent influence on economic processes through liquidity preference. Hence liquidity preference can be seen as a constraining tendency on the income adjustment process described by the principle of effective demand. Since the system is open, there are no simple causal mechanisms and countervailing forces are in operation. Hence, while constraining tendencies are thought to be in operation, they may not always be manifest at an empirical and actual level. Constraining tendencies may be apparent through the high incidence of states of constraint, such as financial exclusion and financial vulnerability, which will be further explored in chapter three.

The concept of constraints in Post Keynesian theory developed here points to the significance of the existence of money, liquidity preference for it and command over it in resulting in a constraining tendency on the economy. In the following chapter, this role of money and preference for it will be further examined with particular focus on the banking system, which itself displays liquidity preference, while extending credit and promoting public confidence in money.

2. Money, liquidity preference and the banking system in a closed economy

2.1 Introduction

In chapter one, it was argued that, in the Post Keynesian framework of the monetary production economy, the existence of money, liquidity preference for it and who has command over it, form a key constraining tendency on the income adjustment process associated with the principle of effective demand. While this is not the only constraining tendency, it is a necessary part of the account of the income adjustment process in a monetary production economy.

The discussion in chapter one suggested that, while money plays an essential and enabling role in the monetary production economy, money and liquidity preference can also act to constrain it. In a monetary production economy, money grants power over other assets. Money is a link between the present and the future (Keynes, 1936: 293); it is a time machine. Money is a social institution that grants future power, when faith in conventional opinion is weak. Hence although money plays an essential role in the monetary economy – its very existence leads to the *possibility* of a constrained economy (Chick, 1983a: 293).

This chapter aims at examining that which makes money 'essential and peculiar' (Keynes, 1936: xxii) in a closed economy, and how money and liquidity preference constrain the monetary production economy. This will set the basis for the examination of these concepts in an open economy, which will follow in chapter four. The discussion below is in three sections. In the first, the role of money in a monetary economy is explored. It will be seen that money plays its essential and peculiar role because of the characteristics of the monetary economy. The discussion will focus on the functions of money and the motives for holding it. In a monetary economy, an asset is money both

because of its characteristics and the confidence the public has in the continued acceptability of that asset.

Having examined the *demand* for money in the first section; in the second, the *supply* of money – and the controversy surrounding the notion of the endogeneity of the money supply - will be discussed. Endogeneity of the money supply is linked to the distinction made between households and firms and banks in the aggregate, the role of the banking sector in creation of credit and whether banks themselves display liquidity preference. The notion that the credit and money markets should be treated analytically separately is adopted. A discussion on the interrelation of these two markets during the business cycle, with reference to the motives for holding money, is offered. The money supply is seen as *conditionally* endogenous because of the liquidity preference of the banking sector.

In the third section, the issue of the command over liquidity is put under closer scrutiny. The stages approach to the development of the banking system is reviewed in the context of a closed economy. The endogeneity of the money supply changes as the banking system progresses through the stages. Analysis of the liquidity preference of different players in the economy allows three states of financial constraint to be identified: financial fragility, financial vulnerability and financial exclusion. Financial fragility is familiar through the work of Minsky, the other two states are more fully explained and defined in this and the following chapters. The discussion suggests that, while money and the financial system enable opportunities, they may also contribute to the constraining tendency of liquidity preference on the economic process.

2.2 Money and liquidity preference in a monetary economy

The capacity of money to play a part in influencing investment, production and employment requires a distinction between monetary and real exchange economies

(Keynes, 1973a: 408). In a real exchange economy, although money may facilitate exchange and ease the inefficiencies associated with barter, money remains neutral and does not influence real economic outcomes. A real exchange economy is modelled as a barter economy, with money added exogenously as a technical input to exchange. The existence of money may affect the level of prices, but not real quantities in the long run.

By contrast, a monetary economy is one where money impacts on production and investment and hence a *monetary* theory of production is required. In the monetary economy, transactions must be financed (Chick, 1973:131) and money is central to the financial interrelations that characterise the economy (Minsky, 1975: 72). In addition, it influences 'motives or decisions' about investment and hence 'plays a part of its own' in economic outcomes (Keynes, 1973a: 408). In the monetary economy, money is significant because of its influence on investment and production decisions, more than because it facilitates exchange (Minsky, 1975: 72; Dow, 1996:170). Hence analysis of money and financial interactions is essential to an understanding of aggregate production, output and employment (Keynes, 1936: 293). In this view, the functions of money, the motives for holding money over other assets, and access to and availability of credit, all contribute to the peculiarity of the monetary economy (Cottrell, 1994:590).

A monetary theory of production emphasises that production of goods and services in a capitalist economy is motivated by an expectation of making monetary profit and that production takes place in historical time in the context of an uncertain future. These characteristics of the monetary economy result in the essential and peculiar nature of money.

In early drafts of the *General Theory*, Keynes referred to the monetary economy as an entrepreneur economy (Keynes, 1973a: 420). In this view, the entrepreneur is the focus of attention as production is governed by the private ownership of the means of production (Rousseas, 1992: 21). It is no co-incidence that an entrepreneur economy is a

monetary economy – as the expected outcome and motivation of economic activity is 'to make money' (Dillard, 1980: 257). In the monetary entrepreneur economy, production is undertaken as a means to an end. Before production takes place it must be expected that it will yield greater or at least equivalent value in *money* terms than the cost of production. Hence, we have, in the entrepreneur economy, a need for a monetary theory of production (Keynes, 1973a: 408) or a monetary theory of value (Rotheim, 1981: 577).

Production and investment in a monetary entrepreneurial economy take place in historical, rather than logical, time. In this world with a past, present and future, production decisions made today change the economic environment that economic players face tomorrow. While this implies that decisions are irreversible (Rousseas, 1992:15), more importantly they are *crucial* in that their outcome affects the whole future course of events (Shackle, 1955: 63). In this context, future outcomes cannot be reduced through the calculus of probability to quantifiable risk as the future is largely unknowable (Rousseas, 1992: 16).

Under conditions of uncertainty, probability calculus fails us on two counts. First, uncertainty is different to a situation of quantifiable risk as the full range of possible outcomes is unknown (Davidson, 1994: 88), and crucial decisions which have the capacity to impact on the future are being made all over the economy. Second, probability calculus fails to capture the state of confidence with which we view the likelihood of the (partial) range of outcomes. For this reason, outcomes are largely uninsurable, and hence expectations can be disappointed (Dymski, 1994:93). A weak state of confidence and high level of uncertainty indicate that change is expected, but in what direction is unknown (Keynes, 1936:148). Since decisions cannot be delayed until all pertinent information is acquired (even assuming it can be discovered), the ease with which previous decisions can be undone becomes important (Runde, 1994:136). Remaining liquid under these circumstances provides room for manoeuvre.

That production and investment decisions take place at all where there is no assurance that demand for newly produced goods and services will be forthcoming, is evidence that conventions are adopted which help disguise the 'awkward fact' of an unforeseeable future. Hence we adopt the convention of assuming that the present circumstances are likely to continue, that conventional judgement is a fair assessment and that current expectations of the future are correct (Keynes, 1973b: 114). However, there are times when our confidence in such 'rational economic' behaviour fails us and then we make use of another convention: we hold money. Holding money is a measure of our confidence in conventional opinion as to the future (Keynes 1973b: 116). Holding money grants future power over assets - and hence allows decisions to be deferred. Where there is considerable uncertainty as to the future, coupled with weak confidence in conventional wisdom, it is likely that the desire to hold money (or liquidity preference) will be high.

Money's significance is thus primarily because it can be held as an alternative to other assets, and allows future power over assets to be wielded. Hence it affects portfolio choices and production and investment decisions (Dow and Earl, 1982:98). But why should the existence of money pose problems for production and investment – and why should people hold money? The answer appears to lie in the peculiar characteristics of money and the functions of money.

2.2.1 The functions of money – and motives for holding it

The traditional definition of money is based on its functions – in the words of Hicks – 'money is what money does' Chick (1992:144 -146). Money is seen a means of payment/medium of exchange, a unit of account and a store of value. This functional definition of money gives us capacity to describe what is – but provides no insight as to why certain assets become and remain money. In the debate which Chick (ibid. 145-146) highlights between Clower and Shackle, at issue is whether money functions primarily *as medium of exchange* (Clower's viewpoint) or as a *means of payment* (Shackle's position).

Adopting the medium of exchange function as of primary importance, suggests that trade credits ought to be incorporated into the definition of money. Trade credits are distinguished from other kinds of credit as they are accepted directly in exchange for goods (ibid. 145). They include book credits extended among firms for supplies, as well as the credit extended to firms by labour (in the form of accrued wages – which are paid out at discrete periods). By contrast, the *means of payment* definition suggests that while exchange is instantaneous, payment may be postponed, and may take some time to be effected. In this view, the definition of money should include only those assets that effect final payment (ibid.).

Either way, whichever function of money is regarded as primary, and hence definitionally superior, identifying real world counterparts of 'money' and understanding why certain assets become generally acceptable as a means of payment still remains problematic (ibid. 146). It appears that certain assets come to be money as a result of the synergy between the characteristics of these assets which makes them well suited to acting as money – and the confidence that the public has in the continued acceptability of these assets as money. The functions of money all appear to be interrelated – money is acceptable as prices are in general more stable in terms of money than in terms of some other asset (Keynes, 1936: 238). Since prices in terms of money are relatively stable and predictable, exchange in money terms is liquid – allowing the traders to realise the original value of the goods. And money is generally acceptable because it is liquid and *vice versa* (Chick, 1992: 155). The general acceptability of money allows it to foster impersonal, multilateral trade. This has the benefits of allowing the possibility of dealing with a broad range of traders – hence facilitating the pooling of more information and lower transaction costs. Money acts as both unit of account and a means of payment, although these are potentially separable functions. Of course, money can only continue to play these roles as long as confidence in it is maintained. In times of uncertainty, people

hold liquid assets – or the most liquid asset, money, because they believe it will retain its liquidity when future transactions (buying or selling) take place (Runde, 1994:138).

Keynes (1936: 195-199) initially described three motives for holding money: the transactions, precautionary and speculative motives. Later, he added the finance motive (Keynes, 1973b: 215-222). However, while the disaggregation of the motives for holding money may be useful, Keynes saw these as producing a composite result – a single demand for money (Keynes, 1936:195). Holding money involves a portfolio choice as to how one should hold one's purchasing power. This decision inevitably involves an assessment of when one's purchasing power needs to be accessible or when one needs to be liquid over a certain time period (Chick, 1983a: 194). The decision as to how one's portfolio is held necessarily involves speculation as to the future value of the assets chosen as a temporary abode of wealth, including money (Dow and Earl, 1982: 100). In this sense, it could be said that we are all speculators (ibid. 102). From the perspective of both households and businesses, money is demanded in order to bridge the gap between income inflows and outflows (Keynes, 1936:195). Transactions demand is necessary for the functioning of the economy. However, from the Post-Keynesian perspective, the medium of exchange is the least important function of money - 'a convenience which is devoid of significance or real influence' (Keynes, 1973b: 115). Transactions demand for money is seen as a stable function of income, relatively predictable and hence the demand for transaction balances is relatively stable (Chick, 1983a: 195).

The unit of account and store of value functions take on significance in an economy where historical time and uncertainty feature. If economic activity takes place as a consequence of the drive to accumulate money, then money needs to be a store of value and a unit by which account can be kept of accumulation (Dow, 1996:175). In an uncertain world, in historical time, forward contracts involving future payment and delivery are denominated and honoured in money. We are no longer exclusively in the

world of 'spot markets' (Davidson, 1978b: 60) and so money lends a semblance of stability to aspects of the future economic environment by enabling the means for establishment and meeting of contractual obligations (ibid. 58). In the same way, money relates debtors to creditors in financial contracts (Rousseas, 1992: 26). Hence money is the means by which the present can be linked to the future (Keynes, 1936: 293-4). The discussion suggests that it may be more appropriate to use means of payment, rather than medium of exchange, as part of the functional definition of money.

Time and uncertainty require that that which is used as money is also a store of value. If there were no uncertainty, there would be no point in holding money, as the reward from holding alternative assets would be greater. The roles of unit of account and store of value are linked – we hold money to defer decisions when we are uncertain – the greater the tendency to hold or demand money, the greater the perceived uncertainty. Money allows us to defer decisions (Davidson, 1978a: 144). Hence 'our desire to hold money as a store of wealth is a barometer of the degree of distrust of our own calculations concerning the future' (Keynes, 1973b: 116). Demand to hold money reflects our confidence in our assessment of the future, a greater demand for money will be reflected in a higher liquidity premium paid (interest rate) to induce people not to hoard money (bid).

Hence because money is a store of value, the unit of account and a means of payment, it will be held for transactions, precautionary and speculative reasons. Liquidity preference comes into play in these motives, even in the case of transactions demand which may be relatively certain. The precautionary motive for holding money is generally associated with unexpected expenditures. Both the precautionary and transaction motives are seen as being a function of income. (Chick, 1983a: 196) points out that summing the precautionary and transaction motives is somewhat confusing if one is trying to distinguish the demand for active balances from passive or 'idle' balances. (This becomes

important since the interest rate equilibrates the demand for 'idle' balances with the supply, and so we are primarily interested in the demand for hoardings of idle balances when discussing money (Keynes, 1973b: 117)). While money held for transactions purposes is 'active' in that it will be spent during the current period, (although it may be 'idle' for a time), precautionary balances are generally idle. Precautionary balances are a function of some previous income period, as hence may be seen as saving – they are only 'active' when they are used.

There has been something of a sea change in terms of how theorists view the precautionary motive in recent years. Traditionally, the motive is discussed in textbooks as representing that part of money held for unexpected contingencies of a mundane kind (see Chick, 1983a: 194). Keynes expressed the precautionary motive as a desire for security – expressed as a proportion of resources held as cash – to meet sudden contingencies and to take advantage of unexpected bargains (Keynes, 1936: 170, 196). In Keynes's view, both the transactions and precautionary motives are a function of the level of economic activity, and hence can be seen as a stable function of income. Recently, Kahn's (1954(1972): 87) association of the precautionary motive with uncertainty and the speculative motive with certainty has resurfaced. In this view, a desire to hold precautionary balances is a direct consequence of an individual's uncertainty about the future, so precautionary balances are held to quell uncertainty as to future opportunities and demands that may require liquidity (Runde, 1994:134). In contrast, if individuals were certain about the future and held their views about interest rates, say, with complete conviction, then they would be operating exclusively according to the speculative motive. It is because wealth holders are uncertain that they defer decisions to invest and remain liquid. Hence precautionary balances can be seen as a response to the state of uncertainty – not just the level of income - and the demand for money may be seen as the result of the interplay of the speculative and precautionary motives (ibid. 85).

The speculative demand for money has always been associated with uncertainty and divergent opinions regarding future course of interest rates (Keynes, 1936: 169). A speculator has good reason to choose to hold money (or to remain liquid) when she differs from general opinion regarding future price movement. Holding speculative balances suggests the speculator has taken a position regarding these future prices and chooses to remain liquid. Hence the speculator acts as if she knows which way the market is going and has outguessed the market. Holding illiquid assets rather than money would be to risk incurring capital loss. Both speculative and precautionary holdings come about because of uncertainty, rather than quantifiable risk. A change in expectations, or in the state of confidence, is likely to cause a reassessment of portfolio holdings, with both precautionary and speculative motives playing a role. Hence, as long as the supply of credit is not completely demand determined, both of these motives have the capacity to influence the liquidity premium (Runde, 1994:135). The liquidity premium affects the decision to hold assets, as will be seen in the discussion of portfolio theory below.

The finance motive, the last of those analysed by Keynes, represents demand for money based on anticipation of a gap between inflows and outflows before, say, embarking on an investment project. Keynes introduced it to cater for planned expenditure, such as might be required before a capital project is undertaken. Hence it refers to borrowing money, whereas the transactions demand refers to holding money. Davidson (1994:123) has introduced some confusion by suggesting that the finance motive is different from the transaction motive in that it relates to *planned* income, rather than current income and so involves planned contractual spending. However, other authors suggest this is not enough to distinguish the motive – as all transactions balances may be seen as planned (see Shackle quoted in Chick, 1983a: 200). Chick (1992:156) suggests the distinction might be more usefully made on the size of the planned expenditure: transactions demand will cover one's beer consumption, for example, but not

the purchase of a car. Large, discrete, planned expenditures requiring borrowing should be categorised as finance demand.

There has been other controversy with regard to the finance motive; much of which has to do with it being assigned to various agendas. According to one reading, the finance motive potentially reconciles the liquidity preference-loanable funds (LP-LF) debate (Davidson, 1965), while according to another, the motive can be used to show that investment is dependent on prior saving (Asimakopulos, 1983, as discussed by Bibow, 1995). Bibow (1995: 664) suggests that the finance motive has been unfairly burdened with these various interpretations, and that Keynes's use of the concept to represent the increase in the demand for money associated with an increase in (substantial) planned expenditure remains intact. The finance motive remains distinctive as it places emphasis on the potential of the banking system to restrict the pace of investment. In the case of an upturn in the business cycle, for example, if the increased demand for finance associated with additional investment and plans for expansion are *not* met, then these investment plans may have to be shelved. Hence, 'in general, the banks hold the key position in the transition from a lower to a higher level of activity' (Keynes, 1973b: 222). The finance motive will be discussed in more depth in the next section of the chapter.

It is perhaps worthwhile here to distinguish the Post Keynesian and Circuitist schools' readings of money and the role of liquidity preference. The latter emphasises, like Post Keynesian theory, the inherent role of money in a monetary productive economy – but sees money as playing this role because of the need for credit extension prior to investment and productive activity. Hence the circuitist approach brings into prominence the dependence of production on finance and the relationship between banks and firms as crucial to the investment process. In this reading, Keynes's finance motive appears to be all-important (see Rochon, 1999). It is the process of creation and destruction of credit that gives money its essential and peculiar role, rather than any characteristics of money

as a liquid asset. There are problems with this view; Keynes's finance motive is essentially a transitory demand for money, and so comes to represent a revolving fund, rather than the cycle of creation and destruction of the circuitists. In addition, the circuitists appear to conflate credit with money – so demand for money is a flow concept only and hence the demand to hold money as a stock is ignored. The importance of distinguishing between stock and flows – and well as between the credit and money markets for analytical purposes will hopefully become clearer in the next section.

2.2.2 Portfolio choice and holding money

While the functions of money give some idea of why holding money may be desirable, portfolio choice theory helps explain money's relative desirability compared to other assets. Portfolio choice has to do with what assets people choose to hold. The return derived from holding any asset (or what is known as its own rate of interest) may be analysed by considering three aspects (Keynes, 1936: 225-229): i.) the yield (q) – this is the flow of services or income from owning an asset; ii.) the carrying cost (c) – which involves any costs towards maintenance or upkeep of the assets and iii.) the liquidity premium (l) – the power of disposal over the assets and hence the ease with which it is exchanged for something else *without fear of capital loss*. Hence, the liquidity premium is taken here to include expected appreciation, a. The liquidity premium reflects the holder's sense of uncertainty (Runde, 1994: 135); it is the payment 'not for the expectation of increased tangible income at the end of the period, but for an increased sense of comfort and confidence during the period' (Keynes, 1979: 293-4). Liquid assets provide a sense of comfort to those holding them. Keynes (1936: 240) distinguishes between risk and liquidity premium and appears to account for risk in terms of an adjustment to the yield (see Runde, 1994: 135). However, given that the liquidity premium generates 'comfort and confidence', it is reasonable to assume that it incorporates both risk perception (the

degree of uncertainty with which expectations of risk are held) and the degree of aversion to risk. The net return, r, for holding any asset over a period may be written: $r = q - c + l$. While a durable good (such as a freezer) or a capital good (such as a chip-making machine) is likely to have a high yield, the carrying cost on such an asset is likely to be high and the liquidity premium will be lower, the more mundane the good and the less active the second-hand market. Money, by contrast, has both a negligible yield and carrying cost: it is held only for its liquidity (Chick, 1983a: 299).

Given that we live in an uncertain environment, portfolio choice involves speculation in terms of our evaluation of the prospective return on assets. Generally, demand shifts to the asset with the highest return relative to risk and in so doing sets up the forces which reduce the relative return of the relatively most attractive asset. As demand increases, the price for the asset increases, stimulating production of the assets with positive consequences for employment. As output increases, so the rate of return falls – reversing the cycle. In the case of investment expenditure, if there are other assets whose rates of return appear to exceed the prospective return on investment goods, then as a class of goods the latter stop being produced.

The positive liquidity premium of money, l, provides a floor to how low the interest rate will fall. Hence at some rate of return, investment in capital assets will no longer be attractive as the marginal efficiency of capital is assumed to fall as capital accumulates (Chick, 1983b: 398). The downward slope of the marginal efficiency of capital schedule is crucial in explaining why expansion of investment comes to a halt. If the marginal efficiency of capital curve were not downward sloping, investment could theoretically go on expanding - as long as the marginal efficiency of capital exceeded the interest rate. However, the theoretical justification of the downward sloping marginal efficiency curve has not been without controversy. Three theoretical views are distinguishable: the *falling expected yield* view, the *diminishing returns* view and the *expected profitability* view. The

falling expected yield view, associated with Keynes (1936) and Chick (1983a) is based on the notion that the prospective yield of a particular type of capital will fall as its supply increases. The view appears to be based on two premises – first, capital saturation is likely to occur, relative to demand, as output increases. In addition, the diminishing marginal utility for the consumption goods produced by the capital good contributes to an expected falling yield for capital (Chick, forthcoming: 7).

The *diminishing returns* view, associated with Kalecki and Sardoni (see Chick, forthcoming: 1), appears to rely entirely on the diminishing returns (or increasing supply price) in the capital goods industry to account for the downward sloping marginal efficiency of capital. Hence the possibility of the falling expected yield is rejected, as it makes use of information, namely the supply price of capital, that could only be known *ex post*. Because of the impossibility of knowing that the supply price is rising in the aggregate, the producer may believe there are no limits to intended investment. Chick (ibid.) suggests that Kalecki and Sardoni have two solutions: accept the imperfect competition framework – which suggests that there will be a limit to demand – and accept that diminishing returns to the capital goods industry leads to a downward sloping marginal efficiency of capital schedule. Chick (forthcoming: 11) suggests that the drive to make decision making at the microeconomic level consistent with the outcome of decisions at a macro level is misplaced. (In chapter one it was seen to be inconsistent with an open systems approach.) Rather it should be accepted that even under perfect competition, the entrepreneur acts without full knowledge of the market outcome.

Finally, the *expected profitability* view of investment associated with Caravale (1992) is the third approach to justifying the downward sloping marginal efficiency curve. In Caravale's view, investment decisions are unlikely to be made on the *actual* rates of profit on existing capital stock. Rather, as long term expectations are involved, investment decisions are likely to depend on the *expected* profitability of investment, which is

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logically distinct from knowledge of the existing situation (Caravale, 1992:92). This view appears to assume that the expected rates of profit (marginal efficiency of capital) schedules of different investment projects are decreasing functions of their own scale. For a given rate of interest, a certain amount of the various investment projects will be undertaken (Caravale, 1992: 91). If the rate of interest is unchanged, then only if expectations of return change, will investment decisions be modified.

In the discussion here, the falling expected yield approach, that of Keynes and Chick, is adopted – hence it is assumed that the prospective yield of each particular type of capital falls as its supply increases. This is in keeping with the liquidity preference concept of constraining tendencies offered here, where the demand for capital assets is evaluated in comparison to the returns on other assets. Differences in the prospective yield of different assets will lead to the shift in portfolio holdings.

Given that the prospective yield of an asset falls as its supply increases, the assets whose rates of return are likely to fall slowest, if at all, are those that are non-reproducible. Non-reproducible assets are not subject to their relative return declining in the same way as producible assets, as production cannot be switched into them. They include land and old masters, although the prime non-reproducible asset is money (Chick 1983a:304). Demand for these non-reproducible assets increases as people shift their portfolios to assets that are a store of value. But this fails to generate the stimulus to the economy through production and employment that a shift to producible goods would. As long as there is 'some asset of which the own rate of interest is reluctant to fall as output increases' (Keynes 1936:229), the growth of the economy will come to a premature halt.

The above discussion sees money as a non-reproducible good - not exclusively so – but it is generally the most liquid good (it is a question of degree, Chick, 1983a: 304), and hence its rate of return falls slowest. Hence money is held as a store of value as the rates of return on producible assets fall, because of its liquidity (Dow and Earl, 1982:105).

Hence if the return to producible assets falls below that of the return on money (the going interest rate), rates of increase in production and employment will fall – potentially before full employment is achieved. Hence the rate of return on money rules the roost and sets the standard for investment (Keynes, 1936: 235 and Chick, 1983a: 309). In this environment, unemployment may result because of excessive demand for liquidity or high liquidity preference.

While the non-reproducibility of certain assets, such as Old Masters, seems intuitive, the concept is more difficult to apply to money, as in the form of credit, its supply can expand in response to demand. The concept of endogenous money expanding as the state of trade demands seems to contradict the notion of the non-reproducibility of money. Reproducibility of an asset is associated with two concepts – employing people in its production and increasing the supply of assets produced. Modern money is essentially a network of credit, so on the first count, money appears to be non-reproducible, as no further employment is generated as the supply of money increases. However, if the money supply expands, then how can it be non-reproducible? The key seems to lie in the considerable capacity of convention to maintain money's 'most liquid' status. In Keynes's view, for a particular money assets, the property of being liquid changes from time to time – but depends on 'social practices and institutions' (1936: 240). Central banks, for example, act to try to maintain values of money. Where these social practices are well established and confidence in the liquidity of money is robust, money will continue to be perceived as the most liquid of assets. The issue becomes particularly important in a situation of hyperinflation. Studies of hyperinflation suggest that inflation has to reach considerable proportions before it breaks the long established 'social practices' of using a local currency (dos Anjos, 1994: 187). Hence a particular money asset retains its most liquid status unless conditions become extreme. In this case, holdings shift to a more stable and more liquid asset, which may be a 'hard' currency,

such as the dollar. Hence what is defined as money changes with what functions as money.

In a monetary economy, money and liquidity preference interact to generate a rate of interest which limits profitable expansion so that the economy is brought to a premature halt (before full employment is reached). In this view, money is not an add-on or even a vehicle by which the engine of the economy moves. The engine contains both real and monetary elements and one can't analyse the one without taking cognisance of the other. Money, the theory of liquidity preference and the interest rate are central to understanding Keynes's principle of effective demand and why there are no automatic mechanisms ensuring full employment in a monetary economy (Rogers, 1997:17 and 23). More strongly put, money, the theory of liquidity preference and the interest rate generate a key constraining tendency on the principle of effective demand so that an outcome of unemployment results.

2.3 Endogeneity of the money supply, liquidity preference and the banking system

In spite of the fundamental role money plays in the Post-Keynesian view, the issue of what constitutes money and the process by which it is created is not settled in the literature. Two theories are distinguishable by virtue of their analysis of the process by which money is created and hence the money supply. Essentially, the Post Keynesian view is a credit theory of money, which views money as an endogenous variable whose behaviour is determined by the behaviour of credit. Hence the volume of borrowing and lending is the fundamental financial variable – rather than the stock of money (Earley, 1994: 338). The debate around the endogeneity of the money supply is one of degree.

It is generally accepted that the use of a 'given' money supply, as used by Keynes, was a theoretical choice made to suit his purposes at the time, but that it is not congruent

with the modern financial system (see Dow, 1997b and Rousseas, 1992: 26.) While there is general acceptance that the money supply is not exogenous, the degree of endogeneity remains an issue. Those that accept complete endogeneity of the money supply, the horizontalists (Kaldor, 1982 and Moore, 1988), embrace endogeneity to the extent that demand for money creates its own supply. Hence the *supply* of money is never a constraint to production and investment decisions. We shall refer to this as the *unconditionally endogenous* view. Other Post-Keynesians, while accepting that money supply is responsive to demand and that supply and demand are interrelated, stress the importance of liquidity preference by all economic agents (Chick & Dow, 1988; Dow and Dow, 1989). In particular the role of liquidity preference in credit rationing by the banking sector is emphasised (Dow and Dow, 1989). Here, the money supply is no longer seen as fully accommodating and is hence *conditionally endogenous*[1].

2.3.1 Endogeneity and the shape of the money supply curve

The two contrasting views to endogeneity are often reduced to a discussion as to the shape of the money supply curve (Lavoie, 1997: 67). This has much to do with the traditional textbook debate on the issue. For the monetarists, the money supply is controlled by the central bank – and the money supply curve is exogenously given and drawn vertically in interest-money space. The curve shifts only when the monetary authorities make some decision to change the stock of the monetary base. In contrast with this view, the unconditionally endogenous school, as represented by Kaldor and Moore, see bank credit as expanding to meet the demands of trade – and hence

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[1] There are also views distinguishable between these two approaches. Wray (1990), for example, sits somewhere between the two views – he adopts not only an unconditionally endogenous view of the money supply, but one that has been so through the ages (timeless endogeneity). But he also accepts the theory of liquidity preference.

determined from within the system, rather than from without. This has been expressed by adopting the vertical money supply curve of the orthodoxy and swinging it over - to produce a horizontal curve. As discussed below, this is essentially a credit money supply curve. Arestis and Howells (1996: 541) argue that the result fails adequately to express the flow concepts of bank lending and the community's willingness to hold bank deposits.

In Kaldor's view the central bank authorities control the bank rate, and hence the level at which the money supply curve is horizontal, but not the supply of money at that rate. Given the role of lender of last resort, it is in the central bank's interests to fully accommodate the demands of trade. In the case of less than full accommodation, velocity (by means of financial innovation) would ensure that demands of trade were met, and hence that the money supply curve was essentially horizontal (Kaldor, 1982: 24). By contrast, an alternative, upwardly sloping credit money supply curve has been presented by Rousseas (1986, 1992). His story takes up the Kaldorian notion that changes in the stock of money and changes in velocity are substitutes to one another, but adds that although velocity changes are likely to increase the lending abilities of the financial sector, they are unlikely to provide full accommodation (Rousseas, 1992: 96). Instead, as demand for money increases, in the absence of any accommodation on the part of the central bank, velocity changes would take place at an increasing rate as the interest rate moved upward. The result is an upward sloping curve, reflecting the direct relationship between the money supply and the rate of interest (Rousseas, 1992: 97). If there was partial accommodation on the part of the central bank, then there would be a smaller increase in velocity of money. In this account, the supply of credit, is largely, but not completely, demand-determined.

The current state of the debate concerning the degree of endogeneity of the money supply can perhaps best be understood by examining the degree to which the unconditionalists and the conditionalists conflate the money and credit markets and

disaggregate the financial sector into the central bank and private sector banking system. In the *unconditionally endogenous* approach, the money and credit markets appear to be conflated. Money is seen as credit-money; demand for money is demand for loans and supply of money is supply of credit (Trautwein, 1997:11). The creation of money originates with the 'demands of trade' – and hence the demand for a loan. While Kaldor appears to acknowledge, with the Radcliffe report, that raising of money (extension of credit) may depend on 'the methods, moods and resources of financial institutions' (Kaldor quoting Radcliffe report, 1982: 13), in practice this appears to make no difference to his theory. Essentially, both the central bank and private financial institutions respond passively to the needs of trade. Hence the money supply is seen as endogenous to (determined by) the non-bank private sector. The change in the money stock is driven by credit demand from the private sector – which first the commercial banks and then the central bank are obliged to accommodate (Cottrell, 1994: 597). In order to ensure the solvency of the banking system, the central bank is obliged fulfil its role as lender of last resort (Kaldor, 1982: 25).

In the *conditionally endogenous* approach, credit refers to bank credit and money is seen as bank deposits (Dow, 1997b: 73) so the definition of money does not differ from the unconditionalists, but credit and money are seen as analytically different. A distinction is maintained between the money and credit markets. This is referred to as examining 'both sides of the balance sheet', indicating that two sets of processes take place in the creation of money. This approach distinguishes between the markets by emphasising the different motives for holding money and demanding credit. The finance demand for money (demands of trade), for example, influences the credit market, whereas the preference to hold assets in a liquid form (precautionary and speculative motives) influences the money market (Dow, 1997b: 72). In this view, there is an interaction of the credit and money markets. While credit extension may facilitate new investment plans, it

will not necessarily ease the desire to hold idle balances (money) required to still the discomfort of uncertainty. Hence the approach emphasises that different players in the market may have different motives for holding money or demanding credit.

The conditional endogeneity view holds that the credit supply curve is upward sloping, but for additional and distinct reasons to Rousseas's explanation above. The players in the financial sector are disaggreagated, so that the private banking sector is seen as distinct from the central bank. In this view, the upward sloping credit supply curve reflects the possibility that, as credit extension proceeds during a boom (i.e. as the private banks accommodate demands for credit), an increase in the banking sector's liquidity preference may force the range of loan rates up – hence producing a curve that may be horizontal to begin with, but then slopes upwards. Hence the conditionality applied to credit extension by the private banking sector over time is reflected in the upward slope of the credit supply curve. Financial innovation is also seen to be, at least to some extent, within the private banking sector's ambit of control – velocity, like credit extension, is seen as an active response of the banking sector to the demand for money.

This view of the credit supply curve meets to some extent the objections of Arestis and Howells (1996) to the horizontal credit money supply curve, which at the intersection of demand for credit curve produces the money supply curve. Hence money is endogenous to the credit market. They suggest that if there is an insistence on using a stock curve, then, the resulting schedule is one of the locus of intersections between supply (new bank lending) and demand (the willingness to hold the resulting bank deposits) *over time* (Arestis and Howells, 1996: 540-541). The resulting curve of the Arestis and Howells scheme represents flow equilibrium points in the money market in historical time, rather than the stock money supply. This schedule of equilibria reflects the liquidity preference of the non-bank public and the banking sector alike, which appears to

be have similarities to the upward sloping credit supply curve of the conditionally endogeneous money supply school.

2.3.2 Conditional endogeneity and the interaction of the money and credit markets

The discussion that follows represents Dow's (1997b) conditionally endogenous view of the money and credit markets, and their interaction. The model below describes the process of credit creation and the interaction of the credit and money markets in a relatively mature financial system. (The development of the banking system will be discussed later, and the description which follows refers to a banking system that has matured beyond stage 3.)

The starting place for the analysis is the *credit* market – as bank deposits arise from credit creation. In the credit market, the *demand for credit* is influenced by the expected yield on investment and the liquidity preference of the public, whereas the *supply of credit* is influenced by the cost of funds and the liquidity preference of the banks – which includes risk assessment by the banks.

Figure 2.1 attempts to capture this interplay. The supply of credit is constrained by the marginal cost of funds, rather than the stock of reserves, given the lender of last resort facility. Loan charges are determined by a mark-up policy, based on the marginal cost funds. Graphically the supply curves in the credit market are initially horizontal, but then slope upwards. These supply curves will be flatter in an upturn, reflecting lower liquidity preference (Dow, 1997b: 73). The intersection of the supply and demand curves determines the volume of credit and thus the supply of money, such as at the intersection of C_d0 and C_s0 respectively the demand and supply curves for credit, leading to the supply of money M_s0.

Figure 2.1 Interaction in the credit and money markets

Figure 2.1 Interaction in the credit and money markets
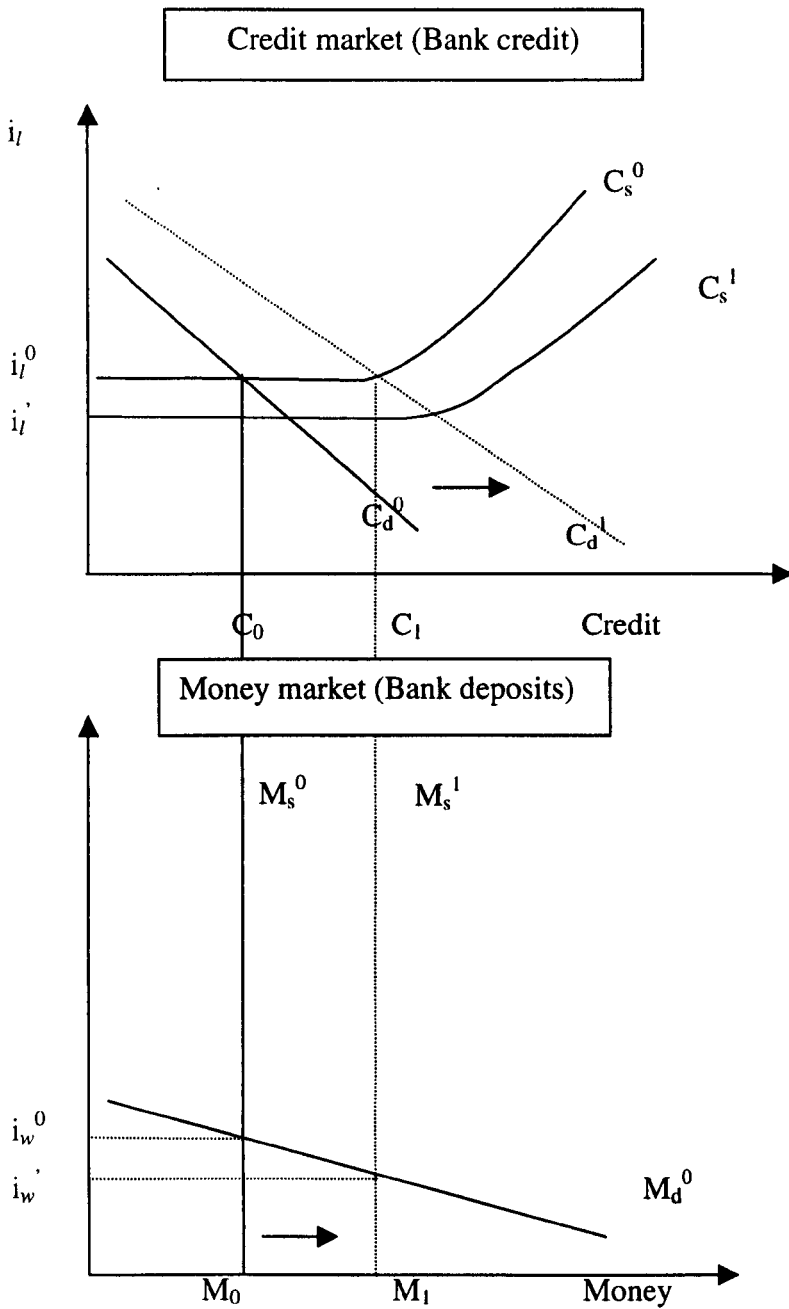
In the *money* market, liquidity preference enters into the analysis as a preference to hold short or long-term assets. The outcome from the money market relates back to the credit market via the interest rate ($i_w 0$ – the wholesale rate) determined in the wholesale money market. The wholesale rate of interest, $i_w 0$, determines the marginal cost of funds to the banks – and so the process is interactive, as $i_l 0$ is a mark-up over $i_w 0$ (Dow, 1997b). It is assumed that the wholesale rate is tied to the repo rate. In this view, banks play an active rather than passive role and so contribute to the momentum of the business cycle,

moving to more liquid assets as the business cycle peaks – and in this way exacerbating the downturn (Dow and Dow, 1989: 159).

Linking the motives for money demand discussed above with flows and stocks can expand this analysis. Generally the finance motive (seen as a subset of the transactions motive) comes into play when there is a substantial change in the level of planned expenditure. Although this is a demand to hold money to allow a project to get started, it can be interpreted as originating as a demand for credit. It is through this mechanism that demand deposits are created to which the firm will have access. The credit demanded to meet the finance motive can be seen as a flow demand - as it is transitory. It is a variable demand as planned expenditure for capital goods, say, increases. For explanatory purposes, we will assume the device of an upswing in the business cycle. In terms of the two-market analysis above, an upswing in the business cycle will result in an increase in the demand for credit, prompted by the finance motive. Graphically, this could be interpreted as a temporary outward shift in the demand for credit to C_d^1, whether this affects the rate of interest depends on the level of accommodation forthcoming from the banking sector. If the banks perceive the upswing in the business cycle, they may be more inclined to extend credit, effectively allowing the credit supply curve to flatten. Hence there may only be a marginal increase in the rate of interest, if any.

Indeed, if the upturn in the business cycle is maintained, there may be reason to assume that the interest rate may fall. The new extension of credit (point of intersection between C_d^1 and C_s^0) will affect the supply of money through the creation of demand deposits. The money stock is seen here as exogenous to the money market, but as endogenous to the credit market, Dow, 1998). The vertical money supply curve, together with the downward sloping money demand curve, sets the wholesale rate for money, i_w^0, which now falls to i_w'.

The interaction between the money and credit markets during the upturn in the business cycle can be analysed through teasing out the liquidity preference of different players in the economy. Higher household employment and income, for example, resulting from the upturn in the business cycle, is likely to increase transactions demand for money, which is likely to be translated into demand for credit. However, at the same time, the liquidity preference of households is likely to fall, as households will want to hold those assets generating the greatest return. Since asset prices will be expected to rise, speculative demand for money will fall. In addition, the upturn in the economy is likely to influence the state of confidence of households positively, and precautionary holdings are likely to fall. From the perspective of firms too, liquidity preference is also likely to fall, and investment plans are likely to increase. Since perceptions of borrower's risk are likely to decline with the expectations of the upswing in the business cycle, it is likely that firms will be more inclined to incur debt so as to undertake investment plans. The demand for finance will increase, affecting the credit market. The liquidity preference of the banks is also likely to be lower with the upturn of the business cycle. With assets prices expected to increase, there will be a willingness to reduce the liquidity of their portfolios. Hence there will be increased willingness to extend credit.

While there is likely to be an increase in the demand for credit as households increase their consumption expenditure, and firms undertake their investment plans, banks are likely to be willing to extend this credit. The increased credit extension will result in an increase in the money supply (through demand deposits). In the money market, the demand for money curve can be seen as a balance of the low liquidity preference of households and firms for idle balances against an increased demand for active balances − to cover increased household and firm transactions (Keynes, 1973b: 221). Assuming these forces are more or less balanced, the demand for money curve will remain unchanged, but the shift outward of the money supply (induced by credit

extension), will result in the wholesale interest rate in the money market falling. This, in turn, will feed back into the credit market, resulting in the new credit supply curve C_s^1 and lower loan rate at $i_l^{'}$. The lower liquidity preference of the banks may be reflected in the flatter C_s^1 curve. While these positive expectations persist, there will be easy credit and a downward trend in interest rates. The low liquidity preference of the banks allowing credit extension in the credit market, together with the low liquidity preference for idle balance on the part of households and firms in the money market results in easy money conditions.

However, as the cycle matures, it is likely that perceptions of lender's risk will increase with the volume of credit extended. This will be manifest in a greater reluctance on the part of banks to meet the build up in finance demand – except at a higher liquidity premium. Hence, although the finance demand may be largely accommodated, it will be at a premium lending rate, reflecting increased perceptions of risk. As the business cycle matures, with an upwardly creeping bank rate, projects whose expected returns are marginal are likely to be shelved. Two sets of forces contribute to this: First, projects that may have been regarded as viable at a lower interest rate, may now be re-evaluated and shelved. In addition, banks may have a sense of being 'over-loaned' which is likely to affect their risk assessment and liquidity preference, hence projects that would previously have been judged to be creditworthy, are now rejected. Those firms and households, who have to re-negotiate loans and credit, will be the first to be affected by credit rationing (Webb, 2000: 87). Firms and households may begin to re-evaluate their perceptions of borrowing risk. This change in perceptions is likely to result in investment and consumption expenditure being curtailed. This will have a negative effect on expenditure – hence resulting in disappointing returns. Firms may begin to lay off workers, further depressing the transactions demand of households and increasing their demand for precautionary holdings. Speculators, seeing that prices of assets are likely to fall, are

likely to shift their portfolios to reflect greater liquidity preference. Together, precautionary and speculative demand for money may result in the M_d curve being pushed out, placing upward pressure on the wholesale money market rate, i_w', and hence the loan rate in the credit market i_l', resulting in the increases to i_w^0 and i_l^0, respectively. As the interest rate increases, speculative demand for money is likely to increase, as speculators move out of bonds, say, in expectation that their prices may fall, and hold money. This is more likely if the interest rate rise is expected to continue for some time.

Hence, as the business cycle continues, there is upward pressure on the interest rate from both the money and credit markets. The peak in the business cycle, and subsequent downturn, can be seen as a culmination of the expectations of the private sector and the banking sector taking a turn for the worse. The increased holdings of non-productive and liquid assets, together with the drying up of opportunities for expansion in the light of higher interest rates, is likely to result in the finance demand for credit gradually contracting. The demand for new credit by companies deciding not to undertake new expansion, will gradually come to a halt. However, as the downturn in the cycle progresses, there may be an increase in distress borrowing, prompted by companies affected by cancelled contracts and foreclosure of other companies. This type of credit demand may be a combination of both the finance and transactions demands, resulting when the anticipated returns flowing from expansion fail to take place – at a time when the expansion expenditure is not fully paid up.

The demand for credit expressed in an increased overdraft facility can be seen as transactions demand for working capital since there is an 'interval between the time of incurring business costs and that of the receipt of the sale-proceeds' (Keynes, 1936:195). However, this demand is not necessarily exclusively associated with regular costs. Hence the demand for rollover credit may not subside, even as the downturn in the business cycle progresses.

From the side of the banking sector, liquidity preference gradually increases as the business cycle peaks, and with it greater reluctance to accommodate demand for credit. Banks tend to hold interbank loans during times of high liquidity preference - these are not perfectly liquid, but satisfy the risk aversion of the banks (Dow, 1999b: 159). Hence the credit supply curve gradually becomes steeper. The failure of the banking system to meet the credit demand resulting from cash-flow squeezes and distress borrowing may not be met by the banks, resulting in further foreclosure. At the very time when firms require additional liquidity, the banks may be reluctant to meet this demand (Dow, 1996). In chapter three, the differentiation in accommodation of different cohorts of clients is seen to reflect the liquidity preference of banks.

In the money market, the increased demand for liquid holdings is likely to persist at a time of uncertainty. If the downturn in the economy is realised, then the domino effect of company failure is likely to result in contracting employment and income. Eventually, this will begin to affect the transactions demand for money associated with regular payments, although demand for precautionary and speculative holdings is likely to be maintained. In both the credit and money markets, there are pressures for interest rates to increase as perceptions of lender and borrower risk begin to increase. The downswing in the business cycle presents a story of high liquidity preference from the private sector and banking system alike. The reluctance of the banks to extend finance through the credit market is likely to result in tightening conditions in the money market, resulting in the money supply shifting to the left, at the same time that demand for liquidity from firms and households rises. Interest rates will increase. As the downturn in the cycle continues, the demand for credit and money are likely to fall and supply conditions will ease.

While this discussion is far from comprehensive, it gives some inkling of the interaction of two sides of the bank balance sheet, as well as the degree to which the

liquidity preference of both the banks and the non-bank public affect what we commonly refer to as the 'money supply'.

2.3.3 Endogeneity of the money supply and liquidity preference

While the issue of endogeneity may seem to be a relatively innocuous dispute about the graphical representation of the money supply curve, the implications for the theory of liquidity preference and interest rate determination are significant. One of the differences between the unconditional and conditional approaches may be found in the role assigned to the central bank in each case (Pollin, 1996a: 495). In the unconditionally endogenous approach, the central bank sets the interest rate and then accommodates all demand; in the conditional approach, the central bank makes attempts at quantitative controls through open market operations influencing the marginal cost of funds.

In Keynes's view, the rate of interest equates the demand for liquid resources with supply (Keynes, 1973b: 222). Hence the interest rate equates the demand for money with the available stocks (Cottrell, 1994: 593). Keynes describes the determination of the interest rate as the outcome of an interactive process involving demand for active and idle liquid balances and the supply as determined by the *banking system*. Hence the interest rate is 'determined by the interplay of the terms on which the public desires to become more or less liquid [borrow] and those on which the banking system is ready to become more or less unliquid [lend]' (Keynes, 1973b: 221-222). Hence, the ability to restrict credit, or the decision to play a fully accomodationist role requires the action and co-operation of both the central bank and the private sector institutions. The discussion of the money and credit markets presented above can be seen as an attempt to capture the interplay to which Keynes refers.

By contrast, the unconditionally endogenous approach to money maintains that, while the central bank is fully accommodating, the central bank sets the price of money.

The unconditionally endogenous credit supply at this interest rate has devastating consequences for the theory of liquidity preference. At best, it is irrelevant (although it tells us something about demand for credit) and, at worst, it is simply wrong. In Kaldor's words (1982: xvii):

> 'Once we realise that the supply of supply is endogenous (it varies automatically with demand, at a given rate of interest), 'liquidity preference' and the behaviour of the velocity of circulation ceases to be important'.

It is somewhat ironic that the unconditionally endogenous approach appears to embrace the finance motive and revolving finance in order to explain their concept of the demand for credit – and hence the shape of the money supply curve, and yet reject the notion of liquidity preference. For Keynes (1973b: 220), the finance motive was the copingstone of liquidity preference. Having rejected the theory of liquidity preference, how does money impact on production and output? In this world of unconditional endogeneity, money still impacts on the production, output and employment outcomes of the economy, because the central bank sets the price – which may be 'wrong' for full employment. It has been suggested that the price or interest rate set by the central bank is exogenous as it has no obvious relation to the demand or supply in any other market (Trautwein, 1997:13). However, Pollin (1996a: 502) suggests that even in Moore's own framework, there are endogenous factors that influence the interest rate. In the light of this, he begs the question why Moore should insist on an exogenously determined interest rate. In terms of the conception of constraints offered in chapter one, it is possible to view Moore's stance on the role of the central bank as coming from a mainstream conception of constraints, with the central bank's intervention a spanner-in-the-works to justify market failure. Moore (1988: 348) writes:

> 'Market forces do not operate to produce an equilibrium level of real interest rates. *Ex ante* real rates are simply the *ex ante* nominal rate adjusted for *ex ante* estimates of the inflation rate. Real rates may be in equilibrium, in the sense of exhibiting no tendency to change,

without in any sense serving to equilibrate real supply and demand forces. The real volume of intermediation may be deposit- or credit-constrained, depending on the level of nominal interest rates administered by the central bank. Similarly, depending on the rates of interest, savings may determine investment or investment may determine savings over the long run. . . . Only when that level of interest rates is established such that aggregate demand is equal to potential aggregate supply with stable wages and prices will the real volume of intermediation be maximised.

Hence the central bank imposes an interest rate which may be 'wrong' (Moore, 1988: 340) and so induces disequilibrium. This view of the economy seems aligned with the spanners-in-the-works of mainstream economics. We appear to be back in the world of scarcity rather than the world of abundance.

The conditionally endogenous approach, however, emphasises liquidity preference as essential to the role of money. In this view, the liquidity preference of the commercial banks and its power to withhold or extend credit, is key to understanding the role of money as a constraint. From this perspective, the dichotomy between liquidity preference and endogenous money is false (Dow, 1997:62). Although credit is endogenous, the supply of credit is not fully demand determined and liquidity preference is crucial to understanding the role of money in Keynes's terms (Dow, ibid. 64). So the credit extension of banks is limited by demand from "good borrowers" (Robinson, 1952: 29), rather than the reserve requirement. Of course what comprises a "good" borrower in times of economic buoyancy may not be so in an economic downturn. From the early stages of banking development, although the reserve requirement may determine the supply of unborrowed reserves, the extent to which this is employed depends on the economic circumstances, the available lending opportunities and the structure of lending rates (Tobin, 1963:417). Hence the commercial banks are seen as active, powerful, players in the market, through their liquidity preference and their current perception of liquidity. Once liquidity preference is defined in a broad sense, as the desired level of

liquidity by all players in the market, the story of credit rationing is used in this account to enrich the theoretical understanding of both the endogenous money supply and the impact of financial fragility on business cycles (Dow and Dow, 1989). In particular, as was discussed above, the role of the banking system as the business cycle progresses suggests that bankers' liquidity preference falls and perception of liquidity of assets rises during the upturn of the economy and is likely to rise during economic downturns, exacerbating tight money conditions. Hence the very time when firms may be cash strapped, due to default of other firms in the economy, may be the time that banks seek greater liquidity and judge firms to be uncreditworthy. Restriction of credit extension at a time when firms are at their most vulnerable may potentially exacerbate the depth of the economic downturn. Hence, the banking sector contributes to the downturn in the cycle.

The role of the banking sector's liquidity preference in contributing to the extremes of the business cycle is complementary to Minsky's (1975, 1982) financial instability analysis, and reveals the influence of the financial sector on the monetary production system. Minsky (1975: 57) suggests that at the root of cyclical instability in a capitalist system is the instability of portfolios and financial interrelations. This is because portfolio decisions involve decisions as to what assets should be held, as well as how they are to be financed. Hence the well-being of a firm depends not only on 'the behaviour of the market for its output and the terms upon which it can hire inputs, but also on the behaviour of financial markets; on the terms on which it can borrow, sell assets, or float shares' (Minsky, 1975:71). Financial contracts are essentially liabilities (debts) which the firm undertakes in order to finance or pay for positions in owned assets. Any firm undertaking such a liability assumes that its future payment commitments will be met. Since the future is uncertain, the firm obtaining the finance is speculating, in the same way that the bank is essentially also speculating on the outcome of extending the credit (Minsky, 1975: 87). The speculating firm making the credit application may believe that

it will be able to meet its payments out of current income (hedge finance). Alternatively, the firm may be aware that its realised income may initially fall short of its payment commitment requiring short-term rollover of its debt (speculative finance). Or, the firm may undertake the debt for speculative reasons, knowing that its current income is likely to fall short of its payment commitments (Ponzi finance). Such a firm, speculating on a future 'bonanza', will have to increase its debt obligations to finance existing debt (Minsky, 1982: 105-106). In the case of a downturn in the business cycle, when the liquidity preference of banks increases, and they are less likely to roll-over short term loans, a company with disappointing returns may move from a speculative finance position to Ponzi finance.

An economy is potentially fragile financially, because uncertainty has the capacity to undermine anticipated outcomes. Default of borrowers because of unanticipated outcomes can disturb the fragile financial structure and result in crisis in financial and real markets alike. In this scenario, firms can be seen as financially vulnerable, as credit may be withdrawn potentially leading to default. The very existence of money and credit enables investment and the production process, but it inherently carries the possibility of financial vulnerability, as the return to assets and production facilitated by credit extension is unforeseen. The concept of vulnerability is further developed in later chapters and is used here to refer to susceptibility to the withdrawal of credit, or to a change in debt status as liquidations of creditors take place, or as the values of financial assets fluctuate and affect the net worth of the firm. The vulnerability of firms contributes to the financial fragility of the economy, as the default of a number of firms can lead to default among some banks, which can cause a domino effect of liquidations, resulting in crisis. The next section examines the development of the banking system in more detail.

2.4 The banking system and financial constraints

The discussion above has attempted to throw some light on the enabling and constraining features of money in a monetary production economy. Understanding the banking system, which creates money and lends it stability, becomes crucial to understanding the role of money. The banking system is a complex, changing, institutional framework which, in the conditionally endogenous view of money, is disaggregated into the private sector banks as well as the central bank. In the Post Keynesian view, banks play a distinct role in the monetary production economy as they are the institutions for which money is a liability and they hold a key position in the transition from a lower to a higher scale of activity (Keynes, 1973b: 222).

The 'key' position that the banking system holds has to do with its capacity to meet the finance demand for credit, without being constrained by prior saving. In contrast to the mainstream view, saving is no longer the primary constraint in financing investment activity in a monetary production economy. Rather, central bank policy and the liquidity preference of the commercial banks determine the response to an increase in finance demand, and this response, together with the liquidity preference of the public and the innovative capacity of financial intermediaries are the primary determinants of the interest rate (Pollin and Justice, 1994: 306). The policies and liquidity preference of the banking system become more important to decisions to finance investment activity than prior saving. This implies a shift from 'a dog called saving wagging a tail called investment' to 'a dog called investment wagging a tail called saving' (Meade, 1988).

The issue of the independence of investment from saving continues to be debated – and has focussed on the impact of increased demand for investment finance on the interest rate (see the debate surrounding Asimakopulos's 1983 paper). Pollin and Justice (1994) suggest that if it is agreed that an increase in investment demand puts upward pressure on interest rates then the issue is one of the *relative* importance of prior saving or

other financial variables in determining the response of interest rates. From their empirical examination of the US economy, Pollin and Justice suggest that the macroeconomic connections between saving and lending are extremely loose. While lending may not be completely independent of saving (for example, prior saving may influence the attitude of commercial banks to new lending), other financial variables are far more important in determining the response of interest rates to an increase in demand for credit. Hence the influence of saving over lending is indirect. In the aggregate, deficient financing of productive activities is the consequence of liquidity preference by wealth holders and of financial institutions rather than an inadequate flow of saving. This issue will be taken up again in the next chapter.

Chick's (1986) analysis suggests that the capacity of the banking sector to respond to financing requirements depend on the stage of development of the banking sector. Crucial to the development of the banking sector – and its capacity to satisfy the transaction and credit needs of the public – is the development of a safe asset. It is because deposits come to be used as a means of payment that banks can create credit in anticipation of a redeposit (Dow, 1998: 25). We will examine the stages of development in some detail, as they will form the framework for analysis of the role of the banking sector in terms of constraints and the financial vulnerability of the small closed economy.

2.4.1 The stages of development of the banking sector

In Chick's (1986, 1993) framework, there are seven stages of banking development (two of these are added in the later paper – suggesting that the process of development is on-going). The first stage is the only one where loans (and hence investment finance) appear to be dependent on prior saving. This stage is characterised by many small banks whose role is primarily to hold savings. For loans to be made, savings (or deposits) must

be made. Hence in this first stage, investment requires prior saving - this is a world of scarcity where investment is constrained by the amount of prior saving.

From stage two on, however, saving is no longer the primary constraint on financing activity. The second stage may be characterised by a more consolidated banking environment – with fewer, larger banks. In this stage, bank notes (or IOUs) become widely accepted as a means of payment. Hence deposits represent not only saving, but transaction balances to finance consumption (Chick, 1986: 114). Since deposits now become a means of payment, there is less withdrawal from the banking system as a whole. New loans tend to lead to new deposits and the bank deposit money multiplier begins to function. Hence, bank loans finance investment and so investment may precede saving. The bank multiplier is a multiple of reserves, dependent on the reserve requirements. The role of the central bank may begin to emerge at this stage, with the central bank controlling the reserve base. This stage requires public acceptance of deposits as a safe asset - and hence represents a growth in confidence in the banking sector.

Stage three is differentiated from stage two by interbank lending – in this stage banks are no longer restricted to using government securities as a reserve cushion. At this stage in the development of banking system, the bank multiplier works more quickly. The central bank is still seen as controlling the reserve base at this stage.

The primary feature of stage four is that the lender of last resort principle has become firmly entrenched: the central bank accepts responsibility for the stability of the financial system (Chick, 1986: 115). Since the central bank is expected to make good any shortfall in reserves, banks may extend loans beyond the reserve capacity of the system. Central bank policy may be more or less accommodating in providing reserves, depending on the interest rate charged, or the degree to which open market operations put pressure on interest rates. Essentially, when the interest rate is stable, the central bank

may be seen as largely neutral; when the central bank seeks to discourage credit extension by charging a penalty rate, commercial banks will only extend loans when expectations of profit are high. At this stage then, the money supply becomes endogenous, determined by credit extension for loans. Of course the loans actually granted may not match the full extent of loans demanded, so credit rationing may take place. As discussed above, the outcome will be the result of the interaction of central bank policy and the liquidity preference of the commercial banks.

Stage five is distinguished from stage four by liability management on the part of the banks. Deposits (the banks' liabilities) now become actively competed for and managed by the banks. Chick (ibid.: 117) attributes this to an increase in financial competition, specifically as legislation enables the blurring of functions between banks and building societies. 'Aggressive expansion' during this stage may entail actively seeking loan opportunities rather than simply meeting loan requests – and funding these loans by attracting deposits through higher deposit rates. This aggressive competition may result in higher average rates on deposits, and hence loans.

Stage six is characterised by innovation by the financial sector so as to avoid capital adequacy ratios. Capital adequacy ratios refer to that percentage of assets required to be held as capital. In order to avoid having to hold these reserves, banks convert illiquid loans on their balance sheets (such as mortgages) to tradable securities. In this way, loans originated by banks are often held as securities by mutual and pension funds. At this stage, there is widespread disintermediation as securitisation of bank assets (including consumer and business loans) takes place. Monetary policy attempts to trap increased activity in securitisation by extending the coverage of capital adequacy ratios. The banks become more vulnerable to market fluctuations through the values of securities, but also in terms of raising capital. There is an increase in off-balance sheet activities, as banks expand into the provision of services to compensate for losses from bad loans. Hence

banks become involved in arranging syndicated loans, insurance, securities underwriting, brokerage, advisory services, equity investments and are involved in taking fees for payment services. A recent study suggests that around half of all the revenue of the 25 largest US banks is generated by these forms of non-interest income (Radecki, 1999:63). As banks continue to take advantage of and encourage the demand for transactions services, particularly in the field of electronic business, income through payments services, in particular is likely to increase.

In stage seven, the distinctiveness of banks appears to be eroded. This is the stage of market structural diffusion. At this stage, the distinctions between banks and non-bank financial institutions appear to blur, with securities markets fulfilling short and long term financing needs and money mutual funds offering close substitutes for checking deposits. There is a trend towards universalisation of services, which comes in the wake of deregulation, competitive pressures and new technology. There is a scramble to keep non-financial companies out of essential business lines (ibid). However, banks continue to hold a key position because of their capacity to create credit and because their liabilities are money. Indeed, in spite of the reliance by large companies on the securities markets to meet their financing needs, recent experience suggest that banks continue to perform an important role of providing liquidity to firms when uncertainty increases and liquidity preference of firms (rather than banks) is high (Saidenberg and Strahan, 1999). This role of the banks arises as firms routinely secure commercial paper loans by establishing a backup line of credit with a bank[2]. In times of economic shock, such as in August 1998, when the Russian government announced its intention to default on its bonds, a 'flight to quality' generally results in a widening of the yield spread between safe and risky assets.

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[2] The lines of credit provide liquidity insurance to guard against the possibility that in times of market turmoil, when their commercial paper matures, they are unable to refinance. Saidenberg and Strahan suggest that the credit line liquidity insurance dates back to a domino default incident in 1970.

Commercial paper is seen as relatively risky and becomes relatively less attractive hold –

so firms draw on their lines of credit. In this way, firms switch from commercial paper to

bank loans at predetermined rates of interest. The capacity of the banks to provide a safe

asset is crucial here. In times of market uncertainty, bank deposits may be seen as

relatively safe assets hence investors are likely to shift their holdings to demand deposits

at the same time that firms draw on credit lines (Saidenberg and Strahan, 1999). This

suggests that banks are ideally positioned to provide liquidity to non-financial firms

during times of market uncertainty, and hence remain distinctive.

2.4.2 Financial constraints

The discussion above has suggested that liquidity preference is not exclusive to

asset-holders, but bankers and lenders also manifest liquidity preference. Analysis of

liquidity preference of different market players allows different financial states of

constraint to be identified in the monetary production economy. They are referred to here

as financial vulnerability, financial fragility and financial exclusion.

Financial vulnerability may apply to an individual, company, or country. Financial

vulnerability refers to sensitivity to the withdrawal of credit, or to a change in debt status

as liquidations of creditors take place, or as the values of financial assets change and

affects the net worth of companies. Both non-banking firms and banks may be financially

vulnerable. Financial vulnerability of non-bank firms can be measured by the ratio of the

firm's loans to its net worth (Studart, 1995: 51). As a firm's loans mount, and this ratio

increases, the company becomes more vulnerable to default brought about through credit

withdrawal. Awareness of this vulnerability may dampen enthusiasm to undertake

productive investment. More significant though, is when a company is perceived to be

vulnerable by its creditors and no new credit is forthcoming, or credit is withdrawn.

On a larger scale, the financial system is *fragile* and susceptible to crisis if expectations are disappointed and financial vulnerability is widely perceived, leading to default. The Stages approach above suggests that in Stages six and seven of banking development, as the lines blur between banks and non-bank financial intermediaries, disintermediation creates a financial super-structure involving many sectors of the economy. The financial super-structure is itself vulnerable to market fluctuations through securities, and it heightens the fragility of the system to crisis, potentially impacting on many, if not all, sectors of the economy. Hence the consequence of bank failure after the banking system has reached Stage six is potentially devastating for the economy. The East Asian bank crisis of 1998 is perhaps a case in point. Although financial vulnerability and financial fragility are related concepts, should a financial crisis occur, the fragility of the system may be *more than the sum* of the vulnerability in the system as firms and banks that were relatively sound become affected by the default around them.

The capacity of banks to finance productive activity, over and above the constraints of prior saving, is crucial to enabling the transition from a lower to a higher scale of activity in the aggregate. However, once the analysis is disaggregated at the firm level, there appears to be a considerable difference between large and small firms and wealthy and poor individuals. While large firms (and wealthy individuals) are unlikely to be denied overdraft facilities, they may not rely heavily on these, preferring to use other financial instruments for their financing needs. In addition, many large companies have their own treasury departments. Hence there is a degree to which they may be no longer dependent on banks, except for a situation where market uncertainty threatens and there is a flight to relatively safe bank assets and loans. When shares of large firms are falling and the values of their assets are following suit, then access to bank credit matters. In contrast, small firms and other individuals are likely to find that unless they have the necessary collateral (prior saving!), they are likely to be excluded from the credit extension process.

The competition in the banking and financial sector in the last stages of banking development sketched above encourages cost-cutting and standardised evaluation of clients, on both the asset and liabilities side of the balance sheets. Dymski (1996) argues that this has encouraged discrimination between established firms and upper-income clients (the 'super-included' (ibid. 93)) and smaller firms and lower-income clients (referred to here as the 'over-excluded'). The latter face *financial exclusion*, if they fail standardised balance sheet and cash flow requirements.

A recent survey in the UK suggests that two fifths of households with income of £160 or less a week do not have a current account, and a fifth of this section of the population do not have any bank account at all (*New Statesman*, 1999). Similarly, some 10 million Americans are 'unbanked' (Doyle et al, 1998:1). Owners of small firms are regularly expected to put their homes up as security for bank credit. If they are not homeowners, they may have to seek credit from informal sources. This is generally less desirable than bank credit – the informal funds are more costly and several sources may have to be tapped to provide an adequate amount of credit (Dymski, 1996: 94). These inter-sectoral differences in the client base suggest that, while at the aggregate level the banking system may have long overcome the prior saving constraints, at an individual level they may remain. In chapter three, these three financial states of constraint and the liquidity preference of banks will be more fully examined, extending the notion of being 'super-included' or 'over-excluded' to a regional analysis of the centre and periphery. In chapters four and six, the concepts are extended to an international framework.

2.4.3 Innovation in the banking sector and a money as a safe asset

The above analysis suggests that as the definition of money changes over time as new assets take on the functions of money, the banking system can be seen to change in ways which enable these new assets to function as money. The story of the stages of

banking is essentially one of innovation. Mokyr (1990: 11) suggests that whereas invention depends on the individual, innovation depends on institutions and hence is social and economic in nature. Innovation involves the application of information to the process of production, or in this case to financing production and expenditure. Both microinnovations – which are essentially refinements and adaptations to previous methods– as well as macroinnovations – that are radical ideas that affect the course of subsequent microinnovations - can be identified (ibid. 13[3]). The fourth stage of banking development, where the central bank becomes the lender of last resort and reserve requirements are replaced with price control, can arguably be seen as a macroinnovation.

In general, the innovations, which form the stages of development of the banking sector, are rarely reversed. They can be seen as 'a long-run progressive relaxation of monetary constraints on activity' (Chick, 1992:157). At the same time however, vulnerability continues to be an issue, as money and the banking system are essentially based on a fragile confidence in the convertibility of one kind of money to another (Chick, 1992:163). It appears then that the development of the banking system contributes to the financial fragility of the economy. As the banking system progresses through the stages, the balance between the advantages of an expanding financial sector and the increasing fragility this lends to the system shifts. In the early stages of banking, the possibility of the economy being freed from the shackles of prior saving suggests that the economy has much to gain from the development of the financial sector. During these early stages of course, many start-up banks fail – their bankruptcy leading to localised disruption and distress. By the fourth stage, however, with the lender of last resort function of the central bank entrenched, bank failures are more infrequent and public confidence in the banking sector grows steadily. The very existence of a competent lender of last resort tends to inspire public confidence, even where the central bank

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[3] Although Mokyr refers to these concepts as macro- and microinventions

oversees the liquidation of banks (as the recent experience of the Polish central bank overseeing a number of bank failures has shown (*Time*, 1999:36)). The lender of last resort function is associated with the removal of reserve constraints on banks, to be replaced with the imposition of a price constraint (the bank rate) (Dow, 1998:27). The irony is that at the very time confidence in the banking system is enhanced; the scope for control of the money supply is considerably reduced.

Crucial to the continued functioning of the monetary system, is the maintenance of public confidence in the banking system. However, the lender of last resort function, which provides this stability and confidence, also opens up the possibility of moral hazard on the part of commercial banks. While the stages of banking beyond stage four may be characterised by fewer bank crashes, this may be attributed to the intervention of central banks in supporting banks with bad debts – rather than implying that no bad debts occur at all. The fine line of balancing the roles of lender of last resort and bank regulator continues to create problems for central banks. To date, banking development has culminated in a stage where banks become vulnerable to fluctuations in the values of securities, which may increase their liquidity preference in times of stock market turbulence as well as during economic downturns. The financial vulnerability of the real sector arises because of the tendency of banks to reduce lending following their increased liquidity preference as expectations change under conditions of uncertainty. There is hence the suggestion that, if central banks could encourage credit availability at the stage of financial fragility, then a financial crisis could be averted (Allen and Gale, 2000). However, even given that central banks are aware of such fragility in advance, it is likely that easy monetary policy could generate sufficient credit expansion to avert the crisis, given the high liquidity preference of banks and wealth holders. Indeed, recent New Keynesian research seems to suggest that unless credit expands by a critical amount, the crisis may not be avoided. A moderate increase in credit will not suffice (Allen and Gale,

2000: 254). Liquidity preference holds the day. Bank failure as a result of the financial fragility of the banking system can affect the real economy.

2.5 Conclusion

The chapter explores the role of money and liquidity preference in a closed economy. In a monetary production economy, money, by virtue of its essential and peculiar functions (means of payment, unit of account and store of value) is integral to the process of production. However, the existence of money is also essential to the functioning of the monetary production economy. It eases the production process. In playing this essential role, it also creates the possibility of the constraining tendency of liquidity preference. Involuntary unemployment occurs when those who possess or who can borrow or issue money choose to remain liquid rather than invest in the products of industry.

The supply of money may be seen as endogenous to the demands of trade, but it is not unconditionally so, as the banking system (the policies of the central bank and the liquidity preference of the commercial banks) have a role to play. Hence the supply of credit is not fully demand-determined. The expectations of bankers and their relative perceptions regarding their liquidity preference and the liquidity of different assets may constrain the decisions of entrepreneurs.

The stages of development of the banking sector were explored in terms of their impact on the production process. States of constraint arising from liquidity preference include financial vulnerability, financial fragility and financial exclusion. While the development of the banking sector may initially relieve the prior saving constraint in the aggregate, facilitating the process of production; however, given uncertainty, this introduces financial vulnerability to the system. At the microeconomic level, individuals and firms may continue to be excluded from access to bank credit. At later stages of

development, a highly sophisticated developed banking system can be seen as contributing to the financial fragility to the economy, as bank failure could disrupt the entire financial superstructure and cause a massive domino effect of liquidations. In addition, a highly sophisticated banking sector may exclude certain individuals and certain sectors of the population, as they are no longer profitable, and because they do not meet the requirements of a standardised screening process. This may result in financial 'super-inclusion' for some and 'over-exclusion' for others.

Financial states of constraint are further explored in chapter three, and are then applied to an international context, leading to a particular concept of what is meant by a 'small open economy' in the fourth chapter.

3. Banks' liquidity preference and financial states of constraint

3.1 Introduction

In the previous chapter, it was suggested that while liquidity preference is a constraining tendency in the aggregate on output and employment, one of the ways it may be experienced is through financial institutions resulting in financial states of constraint. The focus of this chapter is to tease out what is meant by financial exclusion and financial vulnerability when it is applied to individuals, neighbourhoods and regions. (The linkages between the economy and the rest of the world are explicitly examined in Chapter four.)

Both financial exclusion and financial vulnerability are seen as states of constraint that are a consequence of the liquidity preference of banks and financial markets, in particular. To be financially excluded means to be denied access to credit. In a monetary economy, with a developed banking sector, this can mean exclusion from financial services, such as saving accounts, chequing deposits, credit cards, and credit extension. Households are excluded from access to mortgages, credit for household durables and education expenditure. Firms and start-up businesses are excluded from access to capital good purchases or overdraft facilities. The chapter explores financial exclusion as the banking sector develops over time, and as differential development of the financial sector takes place between regions. Financial vulnerability refers to the fear of the consequences of credit withdrawal. The consequences of the liquidity preference of banks changing over the business cycle are explored for marginal firms and households.

In the next section of the chapter, the spectrum of financial provision is presented, which reflects the evaluation of creditworthiness by banks, and provides a model of banks' distributive behaviour towards different clients. The discussion of financial provision suggests that the evaluation of creditworthiness influences and is influenced by the banks' liquidity preference. It is suggested here that the valuation of the liquidity (or

creditworthiness) of particular assets, which in turn affects the composition of the portfolio held, can also be incorporated into the concept of liquidity preference.

Keynes's concept of a fringe of unsatisfied borrowers is explored. It is suggested here that the liquidity preference of banks leads not only to a fringe of unsatisfied borrowers, who are potentially eligible for inclusion, but also to a cohort of borrowers who are excluded from all financial services.

In a monetary economy, with uncertainty, those who do not have access to banking services and credit flows are at a disadvantage, and financial exclusion may add to their difficulties of survival. Lack of cheque accounts, for example, may make ensuring payment unwieldy and expensive. In addition, the ability to withstand the shocks associated with volatile income receipts is likely to be lower where having access to credit is denied. The disparities that lead to individuals, neighbourhoods or regions being excluded from some or all of the financial services of the monetary economy are exacerbated by their exclusion.

The distance between bank and client has been explored as a significant factor for financial exclusion (see Dow, 1982, Martin, 1999 and Porteous, 1995). This view, which is explored below, suggests that there are spatial differences between communities. However, financial exclusion may also arise because of organisational and cultural distance between bank and client (Porteous, 1995). These issues of distance will inform the section three of the chapter, where financial exclusion is examined through the stages of banking development. The development and subsequent deregulation of the US banking industry over the past three decades provides a case study to examine the tendency for financial exclusion and for those on the fringe to become excluded.

In section four, financial exclusion and financial vulnerability are explored in the context of different national financial systems. This section examines the notion that some national systems are more likely to promote financial exclusion than others, and a

comparison is made between arms-length and dedicated banking systems. Although the national financial structure may affect banks' credit extension, even where the system is characterised by dedicated banking, the liquidity preference of banks can still act to exclude.

In the fifth section of the chapter, the stage of banking development theory is employed together with centre-periphery analysis to examine the consequences of regional development differentials in the financial sector. Where a sophisticated financial banking sector exists alongside an 'unbanked' region, there are tendencies that reinforce financial exclusion and vulnerability of the periphery. The analysis of capital flows between regions suggests that financial states of constraints can be experienced at a regional level and convergence is not the only possible outcome of financial deregulation and liberalisation.

3.2   The spectrum of financial provision

Keynes (1930(1971): 327) referred to a 'fringe of unsatisfied borrowers' who were excluded on the grounds of eligibility rather than lack of security or the rate of interest. These were borrowers who met the explicit criteria of lending, but on the basis of the purpose of the loan or their lack of standing or influence with the bank, were relegated behind those who had 'first claims on a bank's favours' (ibid.). Nonetheless, they could be seen as eligible borrowers, should the bank find itself in a position to lend more.

In Keynes's view, it was the existence of this fringe of eligible but excluded borrowers, together with the variability of the eligibility criteria, that meant that banks could influence the rate of investment over and above their influence through the mechanism of short term interest rates (ibid.). Hence banks could be seen as holding a key position in terms of influencing the rate of investment, by tightening and expanding credit to the fringe.

It is suggested here that the variable standards of eligibility can be seen as reflecting changes in banks' liquidity preference. The attitude of banks to the fringe of unsatisfied borrowers is a function of the view they take of their existing loans (current assets) and of new borrowing (future assets). Their attitude to new borrowing is influenced both by the perceived systemic risk of the economy and the industry as well as the perceived risk (or creditworthiness) of the individual firm or entrepreneur. At times when liquidity preference of banks is low, they are willing to accommodate these marginal clients. Hence banks' attitude to the fringe (and hence their evaluation of creditworthiness) appears to change with their liquidity preference. Keynes's discussion of the Federal Reserve System in the US suggests that the treatment of the fringe is not necessarily consistent:

'it makes a great difference to the practical help which the member banks accord to projects for new investment whether the volume of Federal Reserve credit existing at the moment is based on member-bank discounting or on gold and open-market operations by the Reserve Banks themselves. In the former case the member banks will be struggling to lend less and to fob off borrowers of marginal eligibility; in the latter case they will be eagerly seeking an outlet for their funds' (Keynes, 1930(1971): 329)

In the time Keynes was writing, it appears that banks would primarily find themselves in a position to lend more if their liquidity improved, perhaps due to some change in their reserve position. In terms of the theory of the endogeneity of the money supply presented in the previous chapter, the capacity of banks to extend credit becomes more elastic as they proceed through the stages of development. Hence the eligibility of those on the fringe appears to be driven more by the changing liquidity preference of banks, than some quantitative rule involving reserves. But banks will not, in general, extend credit unless the borrower is considered creditworthy, hence it appears that when liquidity preference is low, there is a shift to accommodate marginal clients because

evaluation of their creditworthiness may have changed at the same time that there is a shift to relatively illiquid assets. Hence standards of creditworthiness may fall together with the lower liquidity preference of banks[1].

The existence of the fringe of unsatisfied borrowers has come to be explained in mainstream theory by credit rationing. This occurs when an individual cannot borrow as much as she would like at the going rate or when among identical borrowers, some are able to borrow and others are excluded (Blanchard and Fischer, 1989: 489). In this view, the market for credit does not clear like other markets, where prices do all the adjusting to keep markets cleared, as there are market imperfections. In credit markets, asymmetric information and incentive problems are the spanners-in-the-works, confounding the price allocation system. There is the explicit assumption that borrowers know their risk but conceal this knowledge from banks. Because adverse selection and moral hazard can exist in these markets, if lenders raise loan rates to curtail the demand for credit, they might drive off the risk averse borrowers. This leaves the least creditworthy clients who may be encouraged to undertake risky projects. Hence, banks use other criteria to ration credit and distinguish between those in the fringe. Because of the spanners-in-the-works, the credit market may not produce an optimal solution, and some investment that should be undertaken may not be (Blanchard and Fischer, 1989: 486).

While the credit rationing view sees the problem as being one of asymmetric information which could be remedied by full information on the project; the view presented here is that the fringe exists because of the liquidity preference of banks, which is a function of the unavoidable lack of knowledge in an uncertain world which prevents both borrowers and lenders from quantifying risk. The existence of the fringe calls into play the liquidity preference of the banks' loan officers. Although the borrowers in the

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[1] For the banks to continue to hold a key position, all that is necessary is that the fringe continues to exist. In times of optimism, the stock of potential borrowers may swell, but more of these may be serviced by the banks.

fringe are 'observationally equivalent' (Fazzari, et al, 1988:152) in the sense that they all meet the collateral requirements, loan officers discriminate between them. Keynes (1930 (1971): 327) suggests that borrowers with a lack of standing with the bank or lack of influence are excluded in times of tight credit and included in times of easy credit. While this suggests that there are implicit or qualitative criteria, the collateral standards of banks may also change.

The liquidity preference of banks at any time can be seen as a combination of their evaluation of their existing loan portfolio as well as perceptions of potential new clients. Traditionally, liquidity preference has come to refer to the preferred constitution of the portfolio between liquid and illiquid assets (Keynes, 1936:166). With the extension of the concept of liquidity preference to banks (which have the capacity to create liabilities as they create assets), the concept has also come to embrace the size of the portfolio (Dow, 1993:165). Hence liquidity preference of banks embraces both the composition and size of the asset portfolio held. It is being suggested here that the evaluations that inform decisions regarding the preferred size and constitution of the portfolio, or the process of liquidity assessment, may also be incorporated in a bank's liquidity preference.

The liquidity preference of banks eases when they perceive themselves to be relatively liquid and they are willing to accommodate more of the needs of the fringe. This may occur, for example as the economy enters the upturn in the business cycle. This is generally associated with improved expectations and lower liquidity preference on the part of banks and firms alike. Hence banks are more inclined to create credit at the same time that firms are more inclined to borrow to buy capital goods. Hence low liquidity preference as it is seen here, involves a shift from liquid to relatively more illiquid assets (i.e. a composition shift), a greater willingness to meet loan requests (i.e. growth of the portfolio) and a more favourable evaluation of marginal clients (i.e. a re-evaluation of their creditworthiness). This suggests that potential borrowers that were refused credit in

the downturn of the previous cycle, all things being the same, may find themselves, now, being judged as creditworthy.

The notion that bank's evaluation of creditworthiness of borrowers is bound up in their liquidity preference has not been explicitly set out before. However there are a number of potentially supportive ideas which can be seen as the background against which the notion can be evaluated.

First, Dymski (1998) points to the thinness of the New Keynesian analysis of credit rationing; thin because among others, it lacks analysis of power relations between lender and borrower. He suggests instead that creditworthiness is socially constructed and 'that market opportunities themselves are endogenous and socially constructed at any point in time' (ibid. 251). This suggests that the perceived creditworthiness of a firm and or a project is not 'objective' in any absolute sense.

Second, uncertainty may be seen as a relative concept (Dow, 1993:166). Hence liquidity preference may be higher if the degree of uncertainty is higher, as well as if there were a higher incidence of uncertainty. If uncertainty decreases, projects may be re-evaluated. While a reduction in uncertainty may increase the riskiness associated with some projects, it may improve the evaluation of creditworthiness of others. Hence as the banks' uncertainty regarding the future changes, this may improve their evaluation of some projects, at the same time that their liquidity preference is falling.

Third, Davidson (1978a: 330) suggests that when financial intermediaries seek to float new issues they 'may 'beat the bushes' in order to flush out additional investment projects from entrepreneurs, particularly from those who might, under other circumstances, be part of the unsatisfied fringe of borrowers'. This suggests that banks and financial institutions may at times seek out borrowers, depending on their liquidity preference. This view seems to suggest that at times, the attitudes of banks towards the

fringe can be speculative, where they seek short-term profits from capital gains, rather than income from committed investment (Chick, 1983a: 215).

In order to justify the incorporation of assessment of creditworthiness within banks' liquidity preference, the three motives for the demand for money, the transactions, speculative and precautionary motives are examined. Banks' *transactions motive* for money is essentially reflected in their reserves. Reserves or transaction balances represent the expected daily call for liquid balances by the banks' clients. Since the banks have to estimate this daily requirement, even this motive is affected by uncertainty (this contrasts with Runde (1994: 133) who suggests that the transactions motive has no connection with uncertainty.) Holding adequate reserves prevents banks from having to resort to interbank loans or call on the central bank's discount window to meet daily transactions demand. The daily shortage in the market is traditionally met by the central bank, but is also a means by which central banks exert control over commercial banks. Banks will tend to attempt to minimise this exposure to the central bank's influence by holding adequate reserves and so banks balance the need for holding reserves against the potential return to holding alternate assets. Changes in perceptions of systemic risk may affect expected daily call on reserves, which may affect this motive. An example might be the expected demand for cash over the millennium period, which involved worldwide increase in banks' cash reserves in order to meet expected demand (that did not eventuate to the degree anticipated).

The association of the *speculative motive* with banks has become more prominent in the light of the liability management of banks associated with Stage five of the banking development. As banks become more active liability managers, seeking to attract deposits in the wake of having extended credit, they appear to be more like speculators, seeking profits than long-term investors. Banks become more active in securitised lending and the range of assets that banks finance, such as consumer loans, property deals and take-overs

becomes more speculative in nature (Chick, 1997:540). Like speculators, when banks expect a downturn in the economy, they are likely to shift into more liquid assets. This may mean that they offer fewer loans and the loans they do offer are for shorter time periods. Assets that were previously judged creditworthy no longer appear to be so in the light of the banks' new assessment of economy. Hence expectations of a downturn in the economy are likely to affect the assessment of individual borrowers, with firms' projections duly discounted downward.

Stage six of banking development captures the secular trend towards increased securitisation, where banks attempt to avoid capital adequacy ratios and bad debts by converting loans into tradeable securities. Over the business cycle, the speculative motive for holding liquid assets may be reflected in a move into short-term securities by selling off relatively illiquid loans. Short-term securities have the advantage of ease of convertibility. In the same way, when liquidity preference falls, the banks may shift out of short-term securities back into loans, in expectation of greater returns.

Whereas speculative demand is associated with being liquid because of expectations that holding illiquid assets would result in a capital loss, *precautionary demand* for liquid holdings is associated with increasing uncertainty regarding outcomes. The greater the uncertainty of banks, the less weight they are likely to attach to expectations regarding redeemability of illiquid assets, hence banks are less likely to extend credit, and more likely to increase their reserve holdings, short-term securities and treasury bills. The onset of an increase in uncertainty may be associated with a sudden tightening of the bank's standards of creditworthiness, as in the case of the Asian crisis, when a substantial tightening of standards was reported by lenders in the US, for example (Lown, et al: 2000:3). In the same way, the general increase in the liquidity of banks assets in the 1980's was associated with a general increase in uncertainty generated by floating exchange rates and money supply targeting (Strange, 1986).

The description of the banks' liquidity preference offered here suggests that banks' perception of systemic and borrower risk are interdependent. An expected fall in growth, for example, may cause banks to re-evaluate borrowers' creditworthiness on the basis of the speculative motive. An increase in uncertainty may cause banks to re-evaluate borrowers on the basis of their precautionary motive. In the same way, an improvement in expectations of economic activity and growth is likely to improve the perceptions of borrower risk and creditworthiness, as is a general reduction in uncertainty.

The liquidity preference of banks in an environment characterised by uncertainty challenges the loanable funds view of an orderly assessment of borrower risk with as many borrowers served as is permitted by the deposits of the system, apart from the degree to which credit rationing is assumed to occur. The notion, inherent to this approach, that borrowers are grouped into risk cohorts and cannot be distinguished from each other also suggests that risk can be objectively quantified. By contrast, in an environment of uncertainty, however, risk cannot be quantified and ranked with appropriate premia applied (Dow and Dow, 1989: 154). Rather the notion of an objectively quantifiable risk or creditworthiness gives way to a reasoned assessment influenced by perception of systemic and individual risk, and recourse to rules of thumb (see Porteous, 1995:10). The endogenous money supply view suggests that banks respond to borrower demand, but they are not necessarily fully accommodating. Perceptions of individual creditworthiness may change in response to external factors, and changing perceptions of systemic risk. Rather than being ranked according to some quantifiable assessment of risk, clients and their risk are ranked according to rules of thumb influenced by individual wealth, status and standing. Standards may implicitly vary along the spectrum of the borrowers.

This view of the spectrum of borrowers contrasts also with the New Keynesian view in several ways. In the New Keynesian view, risk is essentially knowable and

quantifiable. Hence information can be complete. However, although borrowers are assumed to have complete knowledge of the risk they present to the lender, it is in their interest to conceal this. The discontinuity in knowledge and incompleteness of risk is introduced by incomplete revelation by borrowers. Asymmetric information is the spanner-in-the-works, and theirs is a story of providing incentives to achieve greater co-operation between principle and agent and hence better (more complete) risk assessment. By contrast the story here is one of lack of attainability of complete knowledge under conditions of uncertainty (Dow, 1999b). Neither firm nor banker has complete knowledge of the future, and while an entrepreneur may underrate risks relative to how a banker may perceive them, this may have more to do with lack of experience or difference in perception, than deliberate masking on the part of the entrepreneur.

The distinction between the system of the New Keynesians that allows a neat ordering of risk and borrowers through quantifiable risk calculations based on potentially continuous information, contrasts with the Post Keynesian system where discontinuity of information is a feature of the system. In the Post Keynesian view, the economy is characterised by uncertainty and the awareness that assessment of the future is likely to be incomplete. In this scheme, information is by nature partial and 'lumpy'. Lenders in this system categorise borrowers by rules of thumb that may require subsequent revision, and hence, within this scheme, financial exclusion is to be expected rather than surprising.

Rules of thumb imply that certain categories of borrower will be excluded, for example illiterate or in-numerate borrowers are likely to be summarily excluded. However, as regards the fringe, banks' evaluation of creditworthiness is unlikely to be objectively quantifiable and may have to adjust to different situations and clientele. Hence where conventional standards are employed across diverse groups, it may lead to exclusion of the 'unconventional' borrower. As will be seen later in the chapter, if credit is extended to unconventional borrowers, and evaluation methods remain static, the bank

may become fragile in terms of its loan exposure. In this view, banks' evaluation of creditworthiness is unlikely to be objectively quantifiable and may have to adjust to different situations and clientele. Even the standards of credit scoring may reflect this, as standards may shift and similar client responses may receive different scoring, depending on the particular institutional and historical position of the banks. Standards of assessment of creditworthiness appear to be integral to banks' allocation decisions regarding credit, and hence it is argued that it is reasonable for the evaluation of borrowers to be incorporated conceptually in their liquidity preference as reflected in the size and composition of their assets portfolios, and how they deal with the fringe.

The importance of variable standards of eligibility appears to be reflected in the Federal Reserve's Senior Loan Officer Opinion Survey, which is conducted quarterly and embraces 8000 banks in the US. In this survey, loan officers are asked whether they tightened or eased credit creation in the previous quarter. The survey confirms the role of banks as allocating loans not simply by raising and lowering rates, but by tightening and loosening other non-price standards (Lown, et al, 2000:7). The changes in the evaluation of creditworthiness may account for the abrupt tightening of credit availability associated with a credit crunch. When liquidity is tightened, loan officers quickly adjust their standards upward, curtailing the extension of credit, and effectively expanding the number of those excluded, and on the fringe, assuming demand for credit is unchanged.

If the perception of borrowers' creditworthiness shifts during the cycle it makes marginal clients particularly vulnerable when the cycle enters a downturn. It is this group, who do not have first call on the bank's resources and whose access to credit extension was predicated by easy money conditions, that are likely to be first to be denied credit extension when they most need it. The analogy of a trendy nightclub has been used; one has to clear the velvet rope before getting a chance to pay the door charge (Lown, et al, 2000:4). Those who are included when the velvet rope is lowered to grant them access,

are likely to be particularly sensitive to a credit crunch as, the velvet rope may also rise, excluding them when they need credit most. Their susceptibility to financial exclusion, as banks' liquidity preference and standards change, makes them financially vulnerable.

Those on the fringe are potentially eligible for credit extension, but once included, are potentially vulnerable. Beyond this fringe are those who do not meet the basic collateral requirements of loan finance. Hence, even when banks adopt their most inclusive stance to fringe borrowers, this cohort remain excluded. They are beyond the fringe, too far from the velvet rope to be potentially eligible. Only extreme circumstances would cause the banks to even consider a process of evaluation of this cohort of potential borrowers. The events leading up to the loans made to LDC in the 1970's could constitute such an extraordinary situation. The issue is taken up again later. At the other extreme of the borrowing spectrum are those who have first call on the bank's services, and who may receive preferential treatment, including preferential rates and waived charges. They have been referred to as the 'super-included' (Dymski, 1996: 93).

The spectrum of financial provision (depicted in Figure 3.1) is drawn with a view to expressing the spectrum of borrowers, the elasticity of inclusion of those on the fringe and the concept of an endogenous money supply. The vertical scale attempts to capture the notion of demand for credit or the liquidity preference of borrowers. The layered bar charts represent the demand for credit by borrowers during periods of high, medium and low liquidity preference. When borrowers have high liquidity preference, they are less likely to seek loans to purchase capital goods. When their liquidity preference is low, borrowers are likely to enter into new ventures that require high levels of finance; hence their demand for credit is likely to be higher.

The notion of the endogeneity of the money supply is seen by assuming that the banks' supply of credit curve follows the top of each successive layer of the bar chart, depending on whether liquidity preference is high or low. Hence the banks match the

demand for credit, but do not necessarily serve the whole spectrum of borrowers. The extent of the accommodation, or how far banks extend credit to those in the fringe depends on their liquidity preference including their evaluation of creditworthiness of different borrowers, shown on the horizontal axis. As the liquidity preference of banks and borrowers falls, banks accommodate at the higher level of demand, but again not necessarily across the spectrum.

Figure 3.1 Spectrum of financial provision
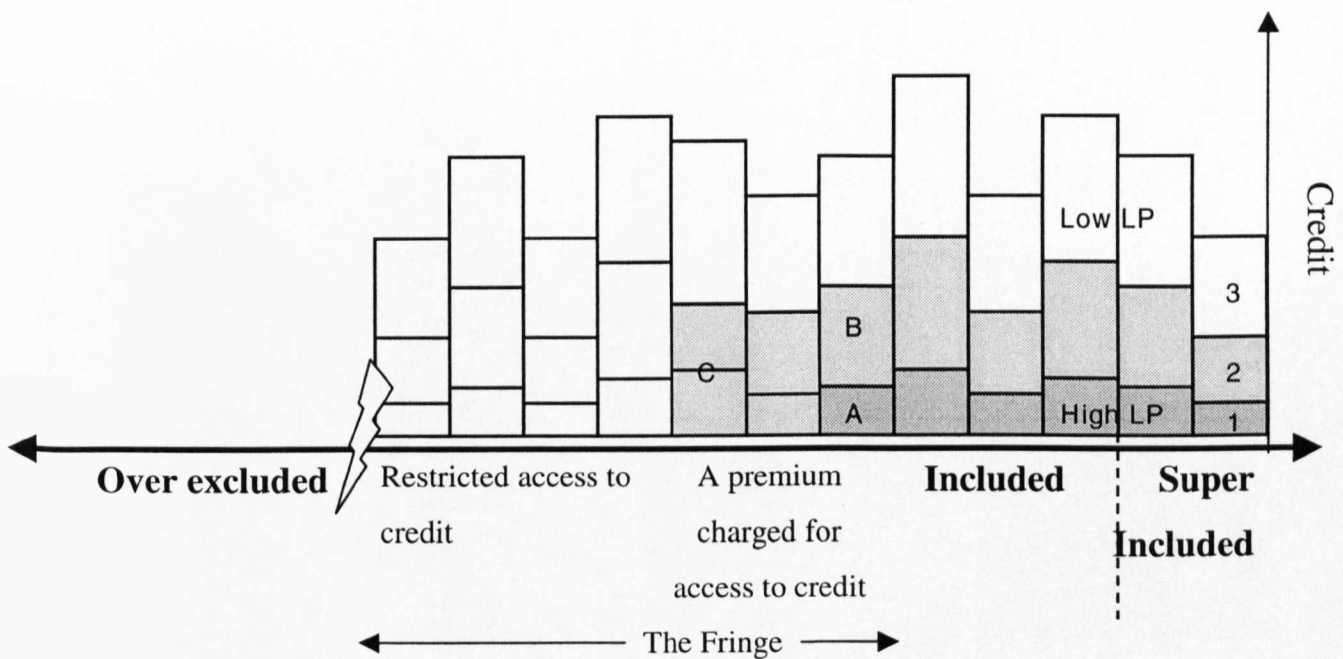
Consider the shifts along the financial exclusion spectrum if the liquidity preference of banks and firms fall, associated with an upswing in the business cycle, say. As liquidity preference falls, firms are inclined to demand more credit, say from credit level 1 to credit level 2, and if their liquidity preference falls in turn, banks are likely to accommodate at this higher level. This shift may be seen as a shift into relatively illiquid assets at the same time that the size of their loan portfolios is increasing.

At the same time, however, they are likely to extend credit to more of the borrowers on the fringe, as borrowers' creditworthiness is re-evaluated in the light of improved systemic expectations. Assume banks are accommodating credit demand in the economy

as represented by the bars ending at A. Some part of the fringe is accommodated. If expectations of firms and banks alike improve, the banks may now accommodate at point C rather than only at B. Hence the improvement in expectations and a changing perception of liquidity results in the shift to illiquid assets, increasing the size of the loan portfolio and a re-evaluation of marginal borrowers. The result is a larger extension of credit to more clients.

The spectrum along the horizontal axis shows that there is a discontinuity between different kind of borrowers. There is a distinction between the super-included and the included and the fringe and the over-excluded. The super-included have first call on the banks, and may receive unsolicited services and waived charges. The included group, who are not super-included, but represent the majority of the banks' clients, still have to apply for financial services and credit extension through the banks' bureaucratic procedures. Those marginal clients that constitute the fringe may shift in and out of inclusion, some may be required to pay a premium and others may have restricted access.

The discontinuity between the fringe and the over-excluded, indicated by the break in the horizontal axis of Figure 3.1, indicates the wide divide between the fringe and the over-excluded. The over-excluded are deemed uncreditworthy, and would not, in the normal course of events even be evaluated as potential clients. The lack of demand from this cohort, indicated by the absence of 'demand bars' suggests that there is no knowledge of the demand of this group. The theory of liquidity preference suggests, however, that the over-excluded are likely to have high liquidity preference, maintaining some level of reserves (expressed as cash under the mattress, in the case of an individual or reserves with foreign banks, in the case of a small country (Dow, 1995: 9)). The chasm between the fringe and the over excluded is only breached under extraordinary circumstances.

The lack of credit provision for the over-excluded may seen to reflect the operation of one of the rules of thumb employed by bankers to deal with unquantifiable risk.

Borrowers may fall into this cohort because they are poor, unemployed, lack familiarity with the financial system, among others. This is a subject taken up again in section 3.3. Although in general banks do not deal with the over-excluded, there are times when they appear to make a strategic decision to deal with them. Such an instance is the extension of credit to LDCs by the international banks after the first oil shock of 1973.

The recessionary adjustment of 1973-4 in developed countries led to a shortage of traditional borrowers, at the same time that banks in developed countries were receiving the cash surpluses of oil exporting countries. Banks in the City of London received around 30 per cent of these surpluses, but were unwilling to involve themselves in domestic industry (Palma, 1995: 115). It was in these circumstances that first Citibank, and then a host of international banks declared their intention to loan to LDCs. These loans were not extended to the poorest of nations, but to the newly industrialised and middle-income countries, however the unprecedented nature of the scale and scope of the loans to countries previously excluded from private finance was extraordinary. Between 1974 and 1982, US $275 billion was dispersed to non-oil LDCs (ibid.), in a process often referred to as recycling petrodollars.

It has been suggested that part of the culpability of the crisis outcome must fall on these banks that loaned to LDCs, without any real sense of the capacity of these countries, or the firms within them, to repay debt. In the light of the model developed here, since these LDCs had been excluded, there was a minimal research base upon which to evaluate their creditworthiness. The lack of familiarity of these peripheral countries suggests that banks could give only a partial evaluation at best. The banks failed sufficiently to take into account systemic uncertainty, but could not have foreseen the subsequent oil price increases and the devaluation of the currencies of LDCs. However, the banks also did not seem to adopt new techniques or creditworthiness standards in order to evaluate these countries, as only 18 months before the debt crisis became obvious to all, there was still

talk of confidence underpinning banks' activities in LDCs (ibid. 122). This suggests that their evaluation of creditworthiness may have been clouded by their strategic commitment to the new order they had put in place. Loans to LDCs continued even after the crisis of 1982, with banks attempting to rescue the situation.

This section has attempted to build on the theory of liquidity preference of banks and examine how this may relate to what Keynes referred to as a fringe of unsatisfied borrowers. The transactions, speculative and precautionary motives associated with the demand for money are explicitly examined as they relate to the liquidity preference of banks. It is argued that the banks' evaluation of creditworthiness may be incorporated into their liquidity preference. A distributive model of banks' lending behaviour is then presented, along a spectrum of borrowers, differentially affected by financial exclusion and financial vulnerability. The model suggest that when liquidity preference changes, the composition and size of banks' assets change, as does their evaluation of the creditworthiness of borrowers, hence borrowers on the fringe may be included in times of low liquidity preference. By contrast, the over-excluded are financially excluded, unless banks take a strategic decision to span the breach.

3.3   Individual and neighbourhood financial exclusion and vulnerability

The theory of banking development, explored in the previous chapter, tells us that the banking sector progresses through the stages by developing new financial instruments which are supported by the lender of last resort and hence earn the confidence of the public as liquid assets. The range of financial assets grows and financial assets acquire a greater degree of liquidity as the banking system progresses through the stages. At the same time, the capacity of the banking sector to meet the demands of trade through credit extension grows. Deposits and then reserves no longer constrain the accommodation capacity of the banking sector, and the money supply can be seen as increasingly

potentially endogenous. The capacity of the banking system to meet the demands of trade as it develops from Stage one to Stage three suggests that the degree of financial exclusion should diminish. In Stage one, where deposits need to be made prior to loans, the capacity of the banking sector to meet the demands of trade is at its smallest. From Stage two on, however, there is less withdrawal from the banking system, and the bank deposit money multiplier begins to function. Loans (and investment) can take place prior to saving. By the third Stage of banking development, interbank lending allows for the bank multiplier to work more effectively. The degree to which the money supply accommodates demands of trade remains subject to the liquidity preference of the banking system.

By the time that the banking sector approaches the fourth Stage of banking development, when the central bank accepts responsibility for the stability of the financial system, the money supply becomes endogenous, subject to credit rationing. This story suggests that, from the second Stage of banking development, the capacity of the banking sector to meet the demands of trade becomes greater. However, this macroeconomic capacity to meet credit demand does not imply that at a microeconomic level all demand will be met. Commercial banks have various screening procedures that will exclude certain borrowers: the purpose of this section is to examine if spatial, cultural or organisational distance contributes to this exclusion.

Stage five of banking development is characterised by liability management on the part of the banks. Aggressive marketing and actively seeking loan opportunities, in response to competition from other non-bank financial institutions mark this stage. In order to fund these loans, deposits are also actively sought – with attractive deposit rates offered. In this phase, banks may pursue those who are seen as profitable clients, in an effort to attract their custom. Wealthy individuals and established firms are likely to

receive unsolicited offers of credit, personalised service and waived fees (Dymski, 1996:93). In terms of the spectrum of financial provision, they are super-included.

Competition between banks and non-bank financial institutions may lead to standardised evaluation of clients – which replaces traditional personal evaluation. While this may reduce costs, it may also exclude individuals and smaller firms from access to finance that would qualify for credit given more personalised evaluation. This may be a problem of 'organisational distance' between the banks and the low-income households and small businesses (Porteous, 1995: 11). Small start-up businesses, for example, are less likely to be conversant with the informational and procedural requirements of the banks. This is likely to be an important factor when evaluation or screening is done at a centralised point, and local information regarding the client is not available. Borrowers whose circumstances require special attention are excluded, as the extra attention required is deemed too costly. This tends to shift decisions away from loan officers to impersonalised evaluation. Hence when liquidity preference is expressed as an objective standard, it may be more difficult to accommodate those on the fringe. Cost-cutting measures will contribute to the standardisation of loan decisions on the basis of balance sheet and cash flow analysis, rather than 'character' (Dymski, 1996:93).

The use of the standardised method of client evaluation can be seen as inherently biased against those without personal collateral and who are inexperienced in such evaluation procedures. From the perspective of the banks though, the process provides an efficient and objective evaluation procedure. While the upper and middle classes are serviced by the standardised evaluation of the developed banking system, the poorer households and start-up firms are more likely to be excluded by the system. This may not apply to circumstances where small banks service small businesses, as small banks' commercial lending is almost completely devoted to small businesses (Strahan and

Weston, 1996:5). This suggests that small banks may have some advantages in servicing small businesses, an issue which will be further explored below.

Stages five and six of banking development are characterised by liability management and securitisation as ways to maintain profit margins and avoid capital adequacy ratios, respectively. As is further examined below, in the US, the common post-deregulation practice of securitisation of mortgage loans, for example, has meant a growing reluctance by mortgage lenders to grant loans that cannot easily and directly be sold to the secondary markets for loans (Campen, 1998:43). This reinforces the tendency not to meet the demand for 'non-standardised' credit, and is likely to affect those who are excluded from financial services.

The neglect of part of the client base may be partly attributed to a shift to fee-based income in Stage five. Earnings through interest margins become less important. Fee income from non-credit services in the banking industry may amount to a half or more of operating revenue (Radecki, 1999:63). This suggests that lending is less important to the revenues of banks than is commonly believed. This changes the emphasis of the banking sector and contributes to different skill-requirements of bank organisations. Bankers are no longer employed so much to evaluate the trustworthiness and creditworthiness of clients, as to broker financial deals. This is likely to encourage the shift to standardised objective evaluation of clients and may also increase the tendency to increase transaction charges. The low-income earners, the irregularly employed and small start-up firms may find these charges prohibitive.

The tendencies for standardised evaluation, higher fees for less profitable clients and increasing reluctance to invest time and energy in meeting non-standardised requests are likely to be exacerbated during Stage seven. During this stage, the banking system experiences increased competition from other non-bank intermediaries as the differences between services and products offered by banks and other non-bank financial institutions

continue to blur. This suggests that the development of the banking sector may contribute to financial exclusion of some groups, and that the organisational distance between banks and some borrowers may grow as the banking sector develops. This suggests that although the money supply may become more endogenous as the banking sector develops, money supply endogeneity should not be seen as synonymous with financial inclusion. The liquidity preference of banks means that the money supply is conditionally endogenous.

Examining the contribution of organisational as well as spatial distance between banks and borrowers may be usefully examined by applying the stages of banking development theory to the US banking sector. The US banking sector provides a useful case study because of its tradition of local and state based banks, a tradition supported and maintained by the New Deal regulations of the 1930's. This decentralised framework only began to change in the mid-1970's. By contrast, the British banks developed through networks of consolidation and concentration (Martin, 1999:7), with relatively less spatial regulation.

The changes in the US banking sector over the past three decades provide a useful basis to examine financial exclusion as the banking sector develops. Prior to the deregulation in the US, banks operated on the basis of market segmentation and universal coverage, and aimed at achieving regional balance (Dow, 1999a: 40). The legislation of the New Deal supported the historical tradition of local banks, separating banking markets geographically and reducing competition for loans and deposits (Dymski, 1996: 90). The 'closed' banking markets encouraged cross-subsidisation of services and loans to smaller clients with the earnings from larger, wealthier, ones. The restrictions on geographical coverage for individual banks encouraged the tendency to re-invest deposits within the county or state from which they originated. Dymski's reading of the dispensation of the New Deal suggests that it aimed to afford the average citizen access to financial services.

In this view, the New Deal provided an extended entitlement[2] of financial access to the common individual. While this entitlement was not extended universally (in the 1970's an outcry against 'redlining', or exclusion of poorer neighbourhoods, gathered momentum, Campen (1998: 40)), the intention of the institutional framework of the New Deal may be interpreted in this way.

The disintermediation of the late 1960s and 1970s (associated with stage six of the development process) provided a substantial challenge to the continued operation of the New Deal institutions. The creation of money market funds, in particular, created liquid interest-bearing alternatives to bank deposits, which compromised the lending capacity of banks – as well as their profit margins (Dymski, 1996: 91). At the same time, large corporations shifted to the bond and paper markets for their financing needs. The development of new financial assets, as well as the financial innovation that resulted from technological change and the increase in interest rates in the 1970s could ultimately no longer be resisted and a series of laws began to transform the banking sector (Campen, 1998).

By the time the last vestiges of the New Deal had been scrapped, some individuals and small firms that previously had access to financial services were denied them (Campen, 1998:43; Dymski, 1996: 91-2). The stages analysis of the development of the banking system gives us some insight as to contributory reasons for this. In the latter stages of banking development, under pressure from competition, increasing interest rates, and pressure to cut costs, banks learn to adjust to new ways of generating earnings.

The removal of geographical restrictions on US banks has meant that banks have greater freedom to seek out higher earnings opportunities and more advantageous

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[2] In Sen's terms, extended entitlement, or property rights guaranteed by society, can be extended or withdrawn through policy and institutional rules and regulations (see Dreze and Sen, 1989: 20-21).

locations. In particular, there has been a phase of merger and acquisition, resulting in significant consolidation in the banking industry. Given that small banks are a major source of credit for small businesses, there is the suggestion that consolidation will encourage the exclusion of small businesses. Contradictory results have been reported in this regard, (Porteous, 1995: 47 and Strahan and Weston, 1996), but the empirical results are likely to be confounded by the short time frame for which data are available. Where large banks take over small banks, rather than where small banks merge, there does appear to be exclusion of smaller businesses (Strahan and Weston, 1996: 5). This may be because large banks have higher fixed costs and smaller loans to smaller businesses do not cover these costs (Porteous, 1995: 70). Since smaller banks, which tend to service a more localised client base, may have cost advantages in dealing with small business (Strahan and Weston, 1996), the take over of small banks by large banks may lead to exclusion of small businesses from financial services and credit.

Another feature of the process of bank consolidation is that the banking industry is likely to become more centralised. Banks headquartered in distant cities are less likely to have comprehensive knowledge of the communities from which deposits have been sourced and hence may be less committed to re-invest in these communities (Campen, 1998:49). While large companies in these communities may have direct access to credit markets (and hence be less reliant on commercial banks), small and medium sized businesses remain dependent on the financial services and credit flows of commercial banks (Campen, 1998: 45; Fazzari, et al 1988: 147; Porteous, 1995: 69). Adequate financing from the banking sector is hence necessary for the survival of these firms and the employment and incomes associated with their activities. Decisions made in distant headquarters are also less likely to be custom-tailored to the needs of a local community, and more likely to be made on the basis of collateral than any other client characteristic.

Poorer households and smaller firms in the local community may fail to have their financial needs met (Campen, 1998:44; Knodell and Murray, 1989:1).

It is no surprise then that attempts have been made by local communities to encourage re-investment by banks in the US. This involves banks making loans in the communities from which they have accepted deposits (Campen, 1998: 51)[3]. In a similar way, the linked deposit programs of local authorities have been recommended to encourage banks to make credit available to low-income households and small start-up businesses. In this way, local authorities will place municipal deposits with those banks whose lending patterns support the development plans of the area (see Knodell and Murray, 1989: iv). However, the success of these programmes is not unequivocal, with communities having little means to enforce the CRA (Pollin, 1995: 46).

In addition to spatial and organisational distance between bank and client, there may also be an element of cultural distance. This may be the result of a community being traditionally excluded from financial services, or of distrust between a community and the financial sector. In a developing country, with a developed banking enclave, and a relatively unserviced hinterland, the former may be a problem, which will be compounded by spatial and organisational distance. This is an aspect more fully explored in chapter seven, where the South African economy is the focus of attention.

However, financial exclusion arising from cultural distance is also a feature of developed industrial economies. In the US, for example, 10 million citizens do not have a chequing account – leaving them financially excluded (Doyle et al, 1998:1). There is a strong overlap between financial exclusion and low income. However, a 1995 survey[4] of

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[3] Although it is suggested that credit discrimination is not proven by a situation where bank liabilities (deposits) exceed bank assets (loans) in a region (Porteous, 1995: 142).

[4] The survey results for 1989, 1992 and 1995 are given in Doyle et al, 1995. The results do not differ significantly from year to year and so only the last year is reported here.

the 'unbanked' reveals that the costs of a cheque account as well as the minimum balance requirements are not the greatest barriers to access to credit and services (only 9 per cent and 8 per cent of those surveyed, respectively, rated these two aspects as a problem). More weight was given to 'not having a need to write cheques' (27 per cent), 'not like dealing with banks' (23 per cent) and not having enough money (21 per cent), as reasons for failure to deal with banks. Indeed, the use of cheque-cashing outlets to cash social security cheques, for example, suggest that the interest rate charged is not of prime importance, rather the need for instant access to liquidity appears primary. Cheque-cashing outlets that charge high transaction fees, but pay out cash immediately appear to be preferred to banks which do not charge a processing fee, but have a minimum clearing period of three days (Doyle et al, ibid.3). The need for immediate liquidity overriding price considerations emerges again in chapter seven.

Where banks do extend financial services and credit access to lower income households and smaller firms, they are likely to rate their lender's risk higher than for more established clients. This is likely to be manifest in credit rationing or charging a risk premium. While this type of inclusion into financial services may be better than nothing, it places these clients at a disadvantage during a downturn in the business cycle. Downswings in the cycle are associated with high liquidity preference and tight money, which is likely to result in interest rates increasing and recall of loans. Since they may already be paying a premium, the small start-up firms bear the brunt of the interest rates increases. Larger firms may have access to greater internal resources as well as have access to short and long-term debt markets. Smaller firms are more likely to be dependent on banks for working capital (Fazzari et al, 1988:147), and hence are most likely to suffer the effects of a credit crunch.

Since it is the smaller companies who rely more on banking finance, the clients most dependent on the banking sector are excluded from its services. The banks hold a

key position in marginalised communities but their liquidity preference is such that they are unlikely to finance an increase in activity in these communities. As has been said, 'If you want to know the value of money, then go out and try and borrow some'. In a position of financial exclusion, people are likely to hoard cash for current as well as capital expenditure (Dow, 1993: 149), rather than rely on the perceived arbitrariness of bank officials. These cash holdings reflect the precautionary motive for holding money, as those at the margin of the monetary economy will be acutely aware of the power of money and will hold cash to avoid being powerless. Evidence presented in chapter seven suggests that liquidity preference of the financially excluded may be so high as to make them interest inelastic. In general then, the liquidity preference of those financially excluded is likely to be higher than those assured of easy access to liquidity.

From the perspective of recent US banking history and the stages of banking development, then, development and deregulation does not necessarily eliminate financial exclusion. Rather, development and deregulation appear to have encouraged exclusion of marginal clients, albeit on an individual, rather than neighbourhood, basis. While neighbourhood redlining is no longer acceptable – or indeed legally admissible - this in effect may still occur, but the criterion is individual collateral, rather than domicile in a particular neighbourhood. There is an element of determinism associated with financial exclusion - the refusal of credit to small start-up firms and households may result in lower economic activity and where such firms and households are clustered in a particular neighbourhood, this may lead to devaluation of the asset prices in the neighbourhood. This is likely to lead to the downgrading of collateral values by banks, and less reason to grant credit. Hence the rule of thumb which led to neighbourhood redlining may persist long after the practice is deemed unacceptable.

The themes of spatial, organisational and cultural distance will be more explicitly examined in the section 3.5, where the notion of financial exclusion is applied to a regional context, but first a brief digression into the debate on national financial systems.

3.4 Financial provision and the national financial system

The availability of credit to firms and entrepreneurs and the extent of financial exclusion and vulnerability may be linked to the practices and institutions of national financial systems. The distinction is usually made between Anglo-Saxon banks, such as those of the UK and US, which maintain an 'arms-length' approach to financing firms, and French and German banks which display a high degree of involvement with industry and are a major source of investment capital for firms (Pollin, 1995: 33; Schaberg, 1999: 2-13)[5]. (The duality is usually described as capital market-oriented or bank-oriented, but for the discussion here the focus will be predominantly on the differences in banking practices, in particular.)

Pollin (1995) suggests that Hirschman's (1970) distinction between exit and voice options may be usefully employed here. The arms-length banks, allowing them mobility and liquidity prefer the exit-option. By contrast, the voice-option is associated with German, French and Japanese banks, who are seen to be able to exploit the positive linkages with firms, as part of their ownership involvement. In this system, banks monitor firms and play an influential role in managerial decisions. This is seen to promote long

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[5] I'm grateful to Jan Toporowski for raising the issue of possible national differences in banks' lending behaviour.

term horizons, reduce the speculative impulse and encourage financial stability (Pollin, 1995:35). In the voice-option model there is, presumably, more consistency in banks' assessment of creditworthiness over the business cycle and less danger of a sudden credit crunch undermining investment decisions. Several studies have pointed to the benefits of this approach to banking, which is seen to encourage the growth and investment of firms and to allow management to focus on longer-term goals (Schaberg, ibid.). Hence the involvement of bankers in the firm's activities and the knowledge this brings of the firm's circumstances suggests that the firm is less vulnerable to credit withdrawal. Hence this model of banks involvement can be seen to reduce financial vulnerability.

However, the use of national distinctions may sometimes be misleading. A recent study by Paulet (1999) re-examines the oft-quoted inspiration for banks involved in firms, Crédit Mobilier, and finds the link between industry involvement and monitoring of firms less than automatic. Crédit Mobilier, an influential Parisian bank, supported innovative industrial projects between 1853-1913, during which time, it was bankrupted twice (ibid. 27). On the whole, the firms with which Crédit Mobilier was involved did not appear to suffer adversely from the bank's bankruptcy, rather the other way around, as the first bankruptcy was directly associated with the bank's involvement in a failed railway company. Hence while the involvement of banks with firms can reduce firms' financial vulnerability, it may expose the bank to increasing risk. It is suggested, then, that although Crédit Mobilier provided liquidity to firms, it did not appear to undertake the supervisory and monitoring role that has been associated with the success of its German counterparts. Hence while it appears to have been the inspiration for other banks involved in industry, Crédit Mobilier was not the model (ibid.).

Hence, while the model of banks involved with firms may be more conducive to investment and growth, its success seems predicated on the degree to which banks employ their influence. Hirschman (1970:24) distinguishes between alert and inert market

participants, it seems that for the voice system to be meaningful in this environment, banks must be alert, rather than inert, so as to avoid the increased financial vulnerability of firms and banks alike.

It has been suggested that the forces for liberalisation have undermined the differences in national financial systems, which are seen to be converging towards the exit-dominated, arms-length model (Schaberg, 1999). However, Zysman (1996: 173) points out that, while wholesale finance markets are international, retail market and commercial lending are still national. Harris (1988) suggests that capital markets have an inherent tendency towards universality, mobility and liquidity. Hence banks and capital markets alike, seek to be fluid without specific ties to industry. However, there have been times when the finance capital of banks has been closely tied to the performance of industry. He singles out Germany in the late 19th century and Chile in the early 1970's (ibid. 25).

The analysis of financial provision presented here can be seen to be most applicable to arms-length banking, where banks are not tied to the specific performance of particular industries or firms, and hence have recourse to the exit-option when they deem necessary. Given that they are not so tied, there is less motivation to resort to the 'cumbrous' voice-option (Friedman in Hirschman, 1970: 16). From the perspective of liquidity preference and financial provision offered here, the dedicated bank system may be more facilitative of the needs of firms with which they are involved. This may reduce perceived likelihood of financial vulnerability of these firms. It would be interesting to explore whether the reduction in vulnerability encourages expansionary behaviour by such firms.

3.5 Financial exclusion in a regional centre-periphery analysis

The discussion above has suggested that the development of the banking sector may contribute to the financial exclusion and vulnerability of cohorts of low-income

individuals and small businesses. The analysis is now explicitly extended to examine the implications of differential development of the banking sector in neighbouring regions. In order to emphasise the potential asymmetries in a country, regional extremes are discussed.

The analysis compares a centre, Metropolis, associated with expectations of expansion, relatively active markets and a sophisticated financial sector with Outback, a peripheral region, which is relatively stagnant, and is associated with thin markets for assets and a less sophisticated financial sector. The financial sector of Metropolis may include foreign-owned banks, the head offices of domestic banking institutions with branches in the periphery and state-supported development banks. The financial sector of the Outback is limited to domestic bank branches as well as micro-credit organisations.

The economic composition of Outback is likely to be heterogeneous, and may consist of a rural community with small towns. Within the rural community, there may be commercial and subsistence farmers. Larger commercial farmers may have access to commercial banking services and may be the recipients of development bank loans from Metropolis, whereas the subsistence sector may be largely 'unbanked'. Subsistence farmers, by definition, will not be producing regularly for the market and so are unlikely to have access to financial services - lacking the personal collateral. They may be seen as 'uncommercialised'[6] (Ghosh and Sarkar, 1998:6) – remaining on the margins on the monetary production economy – and using cash to interact with the rest of the economy.

The exclusion of this portion of the regional economy from formal finance will tend to restrict small-scale development within the peripheral region, as credit creation will be restricted by the capacity of micro-lenders, money lenders and other community schemes to create reserves. In addition, the terms of credit offered by moneylenders are likely to be

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[6] This term is much preferred to the term 'unmonetised' – a state that is probably not common even in a peripheral region.

substantially higher than those offered by the formal banking sector. Hence although the branch banks may be developed to Stage two or beyond, parts of Outback may remain trapped in Stage one of the banking development process, constrained by prior saving. The lack of command over liquidity within this region is likely to lead to a higher liquidity preference than in Metropolis, with individuals storing cash when the opportunity arises.

Banking development is likely to be more advanced in the centre, with the periphery being largely unbanked or uncommercialised at first. As banking development proceeds, the centre is likely to expand, and branch banks in the periphery are likely to be established. If the branches in the periphery have developed beyond stage two, their capacity to extend credit is not constrained by deposits, or prior saving, but by profitable opportunities. Indeed, the opening of branches (be they of the commercial or development kind) in the periphery can lead to a favourable boost to the region. Financial services now become available to some in the periphery, and loans for expansion can potentially be accessed. If the Outback region has good development prospects, the branch banks may enable expansion within the periphery beyond the resources of the periphery Chick and Dow, 1988).

The capacity of the periphery to attract additional funds is dependent on the long-term prospects of the region. Where the periphery is considered to have development potential, these regions will benefit from centre inflows (Chick and Dow, 1988: 19). A deficit in a region's balance of payments will not adversely affect credit creation in the region if it is thought to support peripheral growth, and be a temporary phenomenon. However, as for a country, if the peripheral region's deficit is seen as a structural feature, such as where the periphery has a high import content associated with investment projects, its income multiplier will be relatively low and transfers to the centre to pay for imports will take place. A region in this situation may experience net capital outflows,

rather than the inflows required. Since the regions are both in the same country, currency fluctuation cannot arise, but income adjustment of the balance of payments problem is likely to impact on the peripheral region. The impact on employment in the peripheral region will depend on whether it can successfully 'export' its product to neighbourhood regions or attract additional funds (Thirlwall, 1978:134).

The mainstream interpretation of capital flows between regions is optimistic that they are forces for convergence rather than divergence. If imports of Metropolis (say) are larger than its exports, the inadequacy of saving in Metropolis are assumed to be met by inflows of funds to the expanding centre (Scitovsky, 1958: 89), hence the interregional flow of funds will offset the deficit on the current account of Metropolis. Scitovsky suggests that one of the reasons for capital flows from the stagnating periphery to the expanding centre is that demand for holding money falls with incomes, hence the lower income growth of Outback will lead to a movement of funds to Metropolis. In this view, capital flows to the regions with the highest level of investment, employment and rates of expansion, and hence to regions where investment exceeds saving. This is the key to the equilibration of forces, as regions with excess saving will experience outflows. Eventually, the outflows will raise the average return on the remaining investments in the periphery – and returns to investment will gradually return to equality.

This mainstream explanation for the equilibration of the balance of payments of the Metropolis is fairly standard. But as Dow (1993: 145) points out, the regional differences which contribute to the expansion of Metropolis are unlikely to be fleeting – and by the time the returns to investment equalise across regions – there may be relatively little economic activity remaining in Outback. Krugman's (1981:157) discussion of uneven development suggests that even with capital mobility, accumulation in the centre may continue until complete industrialisation is attained. With the prices of manufactured goods having fallen by that time, there would be little incentive for profitable investment

in the periphery. There appears to be something of an admission to this by Scitovsky (1958:92) - who suggests that if regional differences are allowed to develop, the hardship experienced by those in the stagnating sector can be mitigated by migration. However, even in the relatively developed regions, the limits to mobility have been acknowledged (Robinson, 1969:xiii). Hence regional differences may persist.

In the analysis below, reasons for the persistent development disparities between regions are sought. The aim is to discuss the short and longer-term trends that reinforce liquidity preference for centre assets and continued financial exclusion. Myrdal's (1957) cumulative causation theory and dependency theory - in particular Prebisch's (1950) analysis of the business cycle - are used to construct the theoretical background for these trends.

Cumulative causation theory suggests that the competitive advantages of the centre contributes to its cumulative expansion and advantage over the periphery. This theory suggests divergence between regions rather than convergence. The means by which this occurs is through the flow of factors of production to the dynamic, buoyant centre that increases the development disparities between the regions. The flow of human capital, goods and services and financial capital will tend to denude Outback of productive resources. These are the *backwash* effects of unbalanced regional growth, which impact negatively on the periphery (Myrdal, 1957:27). There will be a degree to which the expansionary momentum of the centre will spill over to the periphery, as the demand for products of Outback increases with the expansion of Metropolis. However, these positive or *spread* effects are likely to be weaker than the backwash effects.

Liquidity preference of those with command over liquid resources is likely to contribute to the process of cumulative causation by which the periphery continues to stagnate. The stages of banking approach suggests that as the banking sector develops, a relatively prosperous centre, with a sophisticated financial base, is likely to attract capital

away from the periphery. The periphery may find it difficult to attract and retain reserves for a number of reasons. In the first place, even if the Outback has linkages to the Metropolis through branch banks, because the periphery is remote, there is likely to be a lag between the implementation of financial innovation in the centre and its adoption in the periphery (Dow, 1982: 26). A continuing differential in financial sophistication between the centre and the periphery is thus likely. This will impact on the periphery, as banks at a higher stage of development are more able to create credit (Dow, 1999a: 46). Hence borrowers in Outback with banks at Stage one of development may be more constrained than borrowers in Metropolis.

Second, banks, insurance and pension funds, and the stock exchange are all likely to have their head offices in and be administered from the centre, hence deposits and securities are likely to be held outside the periphery (Morgan, 1973: 21). Even where branch banks serve the periphery, the power of the centre banks over the periphery is manifest in the head office functions of information and evaluation processes of the banking system (Chick and Dow, 1988: 14-15). The centre is likely to have asymmetric information regarding the periphery and its projects, compared with centre projects. Peripheral regions are subject to the 'ignorance and prejudice' (Morgan, 1973: 21) which accompanies remoteness. Investors are likely to overestimate risks or underestimate opportunities in the periphery; this may contribute to the volatility of income in the periphery, as well as the larger amplitude of the business cycle associated with the periphery. Hence, based on the evaluation standards of the centre, financial exclusion of the periphery is likely to take place. What compounds this regional asymmetry though, is that there are likely to be fewer profitable opportunities in the periphery (ibid. 22). Even when periphery projects are judged creditworthy, their returns will be evaluated against similar centre projects.

As the banking system develops to stage five, where finance charges increase, lending activity will be concentrated in growth industries and speculative assets – both more likely to be in the centre. Since the larger, more dominant companies, which are more able to pass on finance charges are likely to be in Metropolis, lending activity is more likely to be concentrated in the centre (Chick and Dow, 1988: 18). The regional analysis suggests that the centralisation of the financial system tends to induce capital outflows from the periphery (Morgan, 1973: 26). The spectrum of financial provision could also, it appears, be extended to the regional analysis with well-serviced centre and neglected periphery. While integration of Outback to the Metropolis brings with it exposure to more advanced banking systems, it also opens the way for peripheral regions to experience financial vulnerability.

The nature of the relationship between the dynamic growth centres and the outlying periphery as expressed by dependency theory is that the centre exerts a perceptible influence on the periphery – and so the periphery is *structurally* dependent on the centre (Muñoz, 1981)[7]. This relationship has been used to describe the relationship between developed, industrialised nations and primary producing undeveloped nations, but does provide useful insights in a regional context. In particular, to the extent that Outback succeeds in exporting its goods to the centre, the Outback will become increasingly focussed on meeting the needs of Metropolis. Since production in the Outback is more likely to consist of primary products, or relatively simple manufacturers, the prices of the products of the periphery are likely to be sold in flexprice markets, determined by supply and demand conditions (Hicks, 1974). These prices are demand-determined, as compared to the prices of the more sophisticated centre products that are sold in fixprice markets

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[7] In turn, the centre may develop a strategic dependence on the periphery, in terms of the supply of certain raw materials – but the balance of power remains with the centre (Muñoz, 1981:83).

and determined through mark-up pricing (Floto, 1989:141). One might say that the periphery represents the price taker and the centre, the price maker.

The unbalanced relationship between the centre and periphery, and the different types of markets for their respective products, contribute to the inequitable impact of the business cycle on the two regions. During an upswing in the centre, demand for manufactures exceeds supply, and prices increase, together with profits. At the same time, there is pressure for wages to increase, but generally these will increase less than prices, and so profits accrue to entrepreneurs. The increase in prices and demand filters down to suppliers in the periphery. However, workers are likely to be less organised in the periphery than in the centre – and so wages will increase, but not by as much as wages in the centre (Prebisch, 1950: 12). During a downswing in the cycle, however, supply exceeds demand and there is downward pressure on prices. Both organised labour and entrepreneurs in the centre are likely to resist the downward pressure on their relative earnings shares, and so prices of manufactures are unlikely to fall. This is likely to lead to continued stock accumulation, which will result in larger curtailment of production and larger reduction in demand for primary supplies (Floto, 1989:140). The prices for primary products will fall in response to the decline in demand, and both wages and profits in the periphery will fall by more than in the centre. This account suggests the centre is able to divert its cyclical pressure to the periphery (Prebisch, 1950:14), with the result that the distributive effects favour the centre. The forces are such that even if the initial differential is small, the centre will achieve a higher profit rate and so divergence between the regions is inevitable (Krugman, 1981:153)[8].

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[8] While acknowledging the inevitability of this divergence, Krugman (1981:151) distances himself from the more radical explanations of the 'distorting interactions' between the regions and attributes the higher rate of profit in the centre to external economies.

The price volatility associated with the products of the periphery has lead to the association of the periphery with variability in income and employment. Hence, in the downturn of the cycle, workers in the periphery are more likely to be laid off and so unemployment in the periphery will increase in absolute terms as well as relative to the centre. The amplitude of the business cycle is thus likely to be larger in the periphery than in the centre. Prebisch seems to be suggesting, though, that the impact of the business cycle of the centre induces an *asymmetric* effect on the periphery, so that it contracts relatively more during the downswing and gains relatively less in the upswing.

The analysis of the centre–periphery is now extended to the financial sector. The attributes of the centre make its assets more liquid, so the liquidity of any given asset is less in the periphery than in the centre (Dow, 1982:26). In the Metropolis, markets are characterised by a larger volume of trading with a greater range of financial assets. The broad range of traders and trades in the centre contributes to the 'thickness' of the market with the associated pooling of more information and lower transaction costs (Kaldor, 1982: 10; Chick, 1992:155). Together with greater expectations regarding the upward trend in assets prices, Metropolis is attractive to investors. By contrast, the Outback market is likely to be 'thin' with fewer trades being made. Because of this, prices of peripheral assets are likely to be subject to greater variability. In addition, the volatility of the peripheral economy and its vulnerability to the swings of the business cycle means that peripheral assets are less likely to reliably deliver liquidity to their holders. In the absence of expectations for growth, this makes peripheral assets less attractive. In the previous section, it was suggested that liquidity preference is likely to be greater where individuals face partial or full financial exclusion under conditions of uncertainty. This is likely to be manifest in the hoarding of cash. In a peripheral region with linkages to an advanced centre, this liquidity preference is likely to manifest itself not only in holdings of cash, but also in holdings of centre assets. Holders of centre assets are more assured of

the liquidity of their assets and thus, investors in both Metropolis and Outback are likely to choose to hold centre assets. This in turn tends to be self-fulfilling – as the relatively low demand for peripheral assets encourages lower asset prices and less incentive to hold them.

Given this state of liquidity preference, it may be that the effect of the business cycle can also be seen to impact on the periphery differentially in financial terms. Consider an upswing in the business cycle in Metropolis. The expectation of high asset prices in Metropolis is likely to encourage a shift out of liquid holdings to other assets. Expansionary plans by businesses are likely to be accommodated by banks as liquidity preference falls. Where entrepreneurs believe that the growth of the centre is likely to spread to the Outback, they may consider expansion in these regions, or they may be inclined to gear up downstream suppliers in Outback through investment. Hence the optimism of the centre may spillover to the periphery. To the extent that this takes some time, though, the upbeat expectations in the centre are likely to encourage outflows from Outback to Metropolis. During the downturn of the cycle, however, liquidity preference is likely to increase, resulting in a shift to more liquid assets. The increase in liquidity preference in the centre is likely to reduce the capital outflows to the periphery that may have taken place.

In terms of the spectrum of financial provision, the liquidity preference of banks in the centre is also likely to increase with the downturn in Metropolis, as they re-evaluate lender's risk. Short–term loans to the periphery are likely to be among those 'rationed' first, and so these loans are less likely to be rolled over. Those borrowers in the periphery are essentially on the fringe of financial provision. If the banks in the centre make the decision to rationalise, branches in depressed peripheries are usually first to be closed down (Martin, 1999: 8). This contributes to the negative effect of the business cycle in the periphery. There is an element of self-fulfilment about the inconsistency of financial

provision to the periphery: If the centre-periphery discussion of the real economy above is to be believed, the downturn in the cycle is likely to impact the economy of the periphery more negatively than the centre. Job losses may take place and income and expenditure may fall, providing justification for the credit withdrawal from the periphery. Meanwhile, the liquidity preference of those in Outback will increase, which will be reflected in the shift to centre assets as well as cash. The differential effects of monetary policy in regional shares of national credit does appear to be supported empirically (see Porteous, 1995: 143 and 193), even in countries served by national branch networks. This suggests that even if branch banking on a national scale may equalise the cost of credit the availability of credit may differ (ibid.148).

The discussion above has combined the stages of banking development theory, cumulative causation theory and dependency theory to suggest that both in terms of the long-term trends and the short-term business cycle, financial integration and provision to the periphery contributes to the continuing differentials between the regions.

3.6 Conclusion

The above discussion has focussed on the tendency of liquidity preference to constrain access to financial services and credit flows. The spectrum of financial provision has proved to be a useful device to explain the states of financial exclusion and vulnerability. The discussion suggests that banks' evaluation of the creditworthiness of different cohorts of borrowers is tied up with their perceptions of liquidity. As the economy goes through the business cycle, not only is more credit extended, but credit is extended to those on the fringe. Those on the fringe remain marginal clients, however, and are financially vulnerable to credit withdrawal as the liquidity preference of banks increases with a downturn in the economy.

The discussion has examined the stages of development of the banking sector over time, from the perspective of spatial, organisational and cultural distance, and has highlighted the tendency for low income earners, small businesses, and peripheral regions to remain on the fringe of financial provision. It is these groups in particular, which could benefit from the capacity of banks to unlock the opportunities to higher levels of activity. Hence their access to financial provision remains a necessary, if not sufficient, condition for expansion.

The discussion challenges the notion that financial liberalisation is the key to more efficient allocation of the scarce resource (in this case, saving). Greater integration of the peripheral regions with a more developed centre may not lead to greater availability of credit; rather liquidity preference may lead to capital flows to the centre. Financial exclusion and financial vulnerability can hence not be seen to result from a spanner-in-the-works, such as asymmetrical information, but as a result of the constraining tendency of liquidity preference.

The view offered here suggests that the banking system has the capacity to adequately meet the demands of trade and consumption of the economy. The liquidity preference of banks, which embraces their assessment of creditworthiness of various cohorts, results in the exclusion of some cohorts from financial services and the vulnerability of others. The constraint on credit expansion has to do with command over resources rather than their availability.

While financial liberalisation and deregulation is most often associated with a greater range of services at lower cost (Dow 1999a), the above analysis suggests that financial deregulation can bring with it relative neglect of local communities and a more inequitable distribution of resources rather than the benefits of greater competition. Increasing competition may erode the means by which the needs of those on the margin

of the monetary economy can be met. Hence deregulation can bring with it unintended consequences.

The discussion also presents caveats to the notion of financial liberalisation, sometimes referred to as financial deepening. Financial deepening is a strategy of financial liberalisation with the aim of encouraging economic expansion (Shaw, 1973: 3). Cast in the mainstream conception of constraints, financial liberalisation represents removal of spanners-in-the-works and is associated with superior allocation of the scarce resource, saving. Hence investment becomes more efficient, being diverted from inefficient uses (Shaw, 1973:8). In addition though, it is also expected to increase the ultimate scarce resource, as financial deepening will stop and reverse capital flight, hence making more saving available to the domestic economy (ibid. 8).

The discussion of liquidity preference above suggests that financial liberalisation is more inclined to increase the likelihood that as an undeveloped region is exposed to the range of financial assets of the developed centre, with their enhanced liquidity, flight of capital from the periphery may increase. In addition, while exposure to a more developed banking system should reap benefits for the periphery by expanding its capacity for expansion, the outcome of exposure depends on the long-term view of those with command over resources. The notion of capital flowing to its most 'efficient use' and so equalising capital-labour ratios between developed and developing regions has not eventuated to the extent anticipated (Lucas, 1990).

The implications of capital flows between countries will be taken up in the next chapter, when these themes are explored in the context of a small open economy.

4. Liquidity preference and capital flows in a small open economy

4.1 Introduction

In previous chapters, it was seen that the mere existence of liquid assets (notably money), results in a preference for these assets that tends to constrain the principle of effective demand. Hence in playing its essential and peculiar role, through its functions of means of payment, unit of account and store of value, money at once facilitates the production process and also constrains it. As Shackle (1967: 137) puts it, 'Money enormously enlarges the hurtful power of uncertainty at the same time as it enormously facilitates the beneficent power of specialisation'. Liquidity preference provides the link between money and employment and the discussion so far has highlighted the role of liquidity preference of wealthholders and banks in particular and how this may lead to financial states of constraint. While the *General Theory* essentially explored the role of liquidity preference in a closed, homogenous environment, subsequent theorists, notably Paul Davidson (1982), have extended the implications of the monetary production economy to an open economy. This chapter examines liquidity preference as a constraining tendency on the small open (and hence vulnerable) economy, with particular emphasis on financial openness, or exposure to capital flows.

The first two sections of the chapter sketch the background for the discussion that follows. The chapter employs the concept of constraints developed in chapter one to highlight the differences between the Post Keynesian understanding of the consequences of openness and that of mainstream theorists whose position is underpinned by the theory of comparative advantage. This throws into relief the implications of the concept of the vulnerable small open economy, where persistent unemployment is a possibility, as compared to the conventional 'small country' assumption, where full employment is assumed. In the third section of the chapter, the influence of the balance of payments will

be explored in these two different characterisations of the small open economy. Key to the difference in the mainstream and Post Keynesian view of the balance of payments is their different approaches to constraints, seen in chapter one. A short summary of the differences between the small open economy where liquidity preference plays a role in constraining full employment and the small open economy where full employment is assumed concludes the first two sections.

In the fourth section, the role of liquidity preference in the vulnerable small open economy is examined. Examination of motives for flows into and out of small open economies and the composition of these flows will form the basis for examining the role of liquidity preference. Motives for capital flows determine their composition, which in turn determine the exposure of capital flows to changes in liquidity preference. In section five, the centre-periphery theme will be taken up again, highlighting the similarities and differences in regional and international settings. The issue of functional mobility, as well as spatial mobility, of capital is also discussed. In section six, the role of constrained knowledge in the assessment of creditworthiness of small open economies is related to financial exclusion and financial vulnerability.

4.2 Consequences of small openness: Two views

Two characterisations of a small open economy are presented here, with the aim of examining their implications for openness, first to trade flows, and then to financial flows. These characterisations of the small open economy extend the discussion of constraints in chapter one to an open economy context. The conventional view, which presents the small open economy as being able to retain its internal balance throughout, will be referred to as small open economy$_{fe}$ (the full employment characterisation). In contrast to this, another model of the small open economy is developed, which pulls together various critiques of the conventional characterisation and allows for the possibility of persistent

unemployment. It will be referred to as small open economy$_{lp}$, as liquidity preference is a constraining tendency on the income adjustment process.

In the orthodox macroeconomic framework of an open economy, the benefits of trade between an open economy and the rest of the world have long been espoused. Sachs and Warner (1995: 3) have recently averred that the link between trade and growth is 'the most venerable tenet' of mainstream economics. According to the theory of comparative advantage, upon which the 'small country' assumption is based, the benefits and specialisation of trade result in better utilisation of resources, greater output and hence more satisfaction of wants. Hence, openness is seen to relieve the constraints associated with scarce resource endowments and autarky.

In the literature, *openness* is a term used to refer to both the degree of integration (policy orientation) of the economy, as well as the exposure of the economy to the foreign sector (volume of trade). These two concepts are complementary, although not identical (Whitman, 1969). A recent re-examination of the assumed causality between openness, in the sense of integration, and growth, has questioned both the empirical basis and the theoretical foundations for the 'venerable' link (Rodriguez & Rodrik, 1999). Rodriguez and Rodrik suggest that it is unlikely that there is a general, unambiguous, relationship between integration and growth waiting to be discovered. Instead the relationship is far more likely to be a 'contingent one, dependent on a host of country and external characteristics' (ibid: 4). The discussion here focuses primarily on exposure to the foreign sector rather than integration, and suggests that the outcomes of openness are dependent on the composition of trade and financial flows and on the characteristics of countries involved.

In international trade theory, the small open economy is constrained by virtue of the size of its natural resource endowment, by manpower limitations and possibly by market size (see for example Chenery and Taylor, 1968:395). Hence a small economy is more

likely to be subject to the resource constraints than a large economy. However, the limitation of size leads to, and is compensated by, the openness of the small economy. Openness to trade provides a source of demand for the small country's commodities. From the perspective of the theory of comparative advantage, there are gains to be made from specialisation and exchange, which will allow greater absorption than a situation of autarky (Salvatore, 1993:60). Trade makes positions beyond the production possibilities frontier attainable and so trade openness enhances the choices and allocative efficiencies of nations. Participation in the world market provides an opportunity for small economies to exploit economies of scale (Streeten, 1993: 198) and also gives the small economy access to markets and goods which it cannot produce itself. From this perspective, openness is associated with opportunities otherwise denied the small economy$_{fe}$ and so openness leads to positive economic outcomes.

The concept of the small open economy emerged in the 1960's as a result of the work of Swan (1960, 1963) and Salter (1959). They presented the notion of the Dependent economy, for which the terms of trade were exogenous. Their work focused on the need for internal and external balance – achieving both full employment equilibrium and balance of payments equilibrium simultaneously (Swan, 1963: 386). However, the concept of the Dependent economy quickly became subsumed in the 'small country' assumption originally associated with the notion of perfect capital mobility (Dornbusch, 1971: 389).

With perfect capital mobility, the domestic interest rate of the 'small country', would tend to the world interest rate (Mundell, 1963:475). Mundell used this structure to examine the relative efficacy of monetary and fiscal policy under fixed and flexible exchange rate regimes. Mundell's model showed that under a flexible trade regime, monetary policy is effective in stimulating the level of income and employment as it induces an outflow of capital which results in exchange rate depreciation and an export surplus. Fiscal policy is ineffectual if exchange rates are flexible, but are effective under a

fixed rate regime. Since then, fiscal policy has gone out of favour and the monetary approach to the balance of payments has used the small country assumption in illustrating that imbalances on the balance of payments reflect the status of the money supply relative to demand. In this view, a balance of payments deficit implies that the stocks of money are excessive and money will move out of the economy until equilibrium is restored to the money market and the balance of payments. According to this approach, in a fixed exchange rate system, a small open economy has control neither over its money supply, nor over the domestic price level. In a floating exchange rate system, the exchange rate moves in response to disturbances in the money market. Hence the floating exchange rate becomes a means of controlling the flow of capital and in this way, control is gained over the money supply and the price level (Ball et al, 1977: 3).

The price taker concept of small countries was extended to all relative prices, leading to a strong resemblance between the small open economy$_{fe}$ and the perfectly competitive firm, for which the demand curve is perfectly elastic. While the small open economy$_{fe}$ is unable to influence its terms of trade, it ought to be able to export any quantity of exports it desires, just as a perfectly competitive firm can sell any quantity at the going price. In the same way, by the assumptions of perfect mobility of capital, while the small open economy$_{fe}$ is unable to affect its interest rate and its inflation rate, it is assured of the benefits of convergence. As presented in conventional macroeconomic theory, then, the problem of achieving internal and external balance within the small open economy$_{fe}$ has become almost trivial, as internal balance or full employment is a premise of the model and external balance is assured by selecting the 'correct' exchange rate regime.

Cast in the mainstream conception of constraints, this model of the small open economy$_{fe}$ suggests the benefits of financial liberalisation. As was discussed in chapter three, financial liberalisation implies that investment is diverted from inefficient uses

(Shaw, 1973: 8). Hence, there is the suggestion here that liberalisation represents removal of market impediments, or spanners-in-the-works, and an environment in which they are less likely to be imposed. In addition though, through the assumption of perfect capital markets, financial liberalisation is also expected to increase the ultimate scarce resource, with inflows of foreign saving addressing the domestic bottleneck constraint on growth.

In the profile of the small open economy$_{lp}$ developed here, it is assumed that the openness of the small open economy brings with it both opportunities and constraints. Exports increase demand for domestic output and stimulate income and employment. Imports of capital goods may make previously impossible investment projects possible. However, with exposure to the foreign sector comes vulnerability to external shocks and the potential withdrawal of foreign sector participation. While capital inflows may provide exogenous investment stimuli, these inflows may also be suddenly reversed, impacting negatively on the real sector of the economy.

The Post Keynesian critique of the theory of comparative advantage is a starting point for the concept of the small open economy$_{lp}$. The critique rests primarily on the full employment premise of the theory of comparative advantage. In Post Keynesian theory, the existence of liquid assets in a world of uncertainty leads to the possibility of persistent unemployment, so full employment cannot be assumed. However, the law of comparative advantage assumes that the trading nations are at full employment and that the price adjustment mechanism will convert relative cost differences into balanced trade, even where one country's productivity is inferior to that of other nations (Krugman, 1996:94). In this view, through trade, countries can specialise in their least cost production and globally efficient production is ensured.

However, dropping the assumption of full employment so undermines the theory of comparative advantage that it can no longer be said to determine the composition of trade or the outcome of openness. For an economy in a position of persistent unemployment, the

choice may not be 'that we should stop the making of cars and make something else for which we are better suited...the alternative may for a time be between producing motor cars or producing nothing' (Keynes, 1981: 114).

In the *General Theory*, Keynes points out that once the fallacy of the saving–investment nexus is exposed, that is, that the motives that govern decisions to abstain from consumption are different to those governing decisions to provide for future consumption, the theoretical underpinnings of the 'unqualified advantages of laissez-faire in respect of foreign trade' are also destroyed (1936: 21). The rejection of free trade based on the theory of comparative advantage implies that increased integration and exposure to trade may not necessarily produce beneficial results for employment.

By the law of comparative advantage, market competition promotes relative efficiencies in each trading nation so that global supply increases. It is taken for granted that demand will expand to absorb this supply, and that trade will balance so the increased capacity to export appears to be met by an equivalent demand for imports and *vice versa*. However, there is no guarantee that global effective demand will increase in accordance with the increase in supply made possible by specialisation and trade (Davidson, 1999-2000: 203). In the same way that the existence of liquid assets can lead to aggregate demand being insufficient for the achievement of full employment in a closed economy, it can result in persistent unemployment in an open economy, in spite of price adjustments. This challenges the notion that trade deficits, for example, only exist because of inefficiencies or because of the profligate tendencies of nations.

Another reason for the rejection of the law of comparative advantage is that it assumes the immobility of both capital and labour. Once this assumption is dropped, there is reason to suggest that, through the process of cumulative causation, resulting from complementary investment and research and development, countries with absolute advantages in the production of certain goods may attract sufficient capital to corner the

market (Davidson, 1999-2000:204). Other countries producing these products or services may be unable to compete.

Once the law of comparative advantage is rejected, the consequences of openness for a small economy may not be unequivocally positive. A highly elastic demand curve for the exports of the small open economy can not be assumed, particularly if they are primary products. In addition, given that production of capital goods requires economies of scale for successful production, small open economies are more likely to import capital and intermediate goods (Joshi, 1970: 122 and McKinnon, 1964:405). The importance of foreign inputs to the production process is unlikely to diminish even although a small country's ability to produce simple capital goods may improve as it develops, as requirements for more complex goods will tend to increase, thus offsetting any reduction in dependence (McKinnon, 1964:405). The reliance on imported capital goods is likely to have two effects not captured in small open economy$_{fe}$ (Hawkins, 1997:280). First, when a country imports its capital goods, although productive capacity is enhanced, effective demand for this new capacity may not be forthcoming as the stimulatory effects to employment are largely exported. Second, the continuing reliance on more complex imported capital goods may lead to a tendency towards a current account deficit. Hence the consequences of openness to trade cannot be judged *a priori*, and appear to depend on the composition of exports and imports. The consequences of openness to financial flows are examined next.

From a mainstream perspective, the benefits of openness to trade flows have been assumed to apply to financial flows equally well, so that openness of the economy is seen as a self-evident development strategy (Fitzgerald, 1996: 80). According to the theory of efficient resource allocation based on comparative advantage, financial openness will lead to capital flows from capital abundant areas, where returns to capital are relatively low, to capital-scarce, high-return regions. This addresses the potential saving gap in capital-

scarce regions, enabling investment rates to exceed domestic saving rates. Through this process, flows of capital work towards equalizing worldwide interest rates and achieving economic convergence. While some orthodox economists also acknowledge the possibility of external shocks and volatility associated with financial openness (e.g. Bacchetta & Wincoop, 1998; Corbo, 1999 and Salvatore, 1998), the volatility of exchange rates and equity prices are expected to be restricted to the short term (see McCallum and Vines, 1981: 452 on the Chicago school).

In the monetarist framework, openness to the world economy implies having to surrender a degree of policy autonomy – either of the money supply (and price level) in the case of a fixed exchange rate regime, or of the exchange rate, in a flexible rate regime. This loss of autonomy is compensated, as it is the means by which convergence with other economies is achieved. In addition, under a flexible exchange rate regime, there is room for independent, as well as effective, monetary policy (Friedman, 1953:200). Hence the flexible exchange rate regime offers the best of both worlds. Since openness is consistent with both internal and external balance in the small open economy$_{fe}$ it is considered to be no more constrained that any economy with an endowment that limits productive capacity. Indeed, given the benefits of specialisation and trade, it may be that the small open economy$_{fe}$ is seen as less constrained than a closed economy.

However, such an approach ignores the disruption that can affect small open economies when global shocks take place. It thus ignores the implications of the 'dependent economy' that emphasizes the relative impotence of a small open economy within the global environment. In this view, a small open economy is vulnerable to disturbance from outside its borders (Helleiner, 1990:3 and Whitman, 1967:4). Hence openness to international influences is a major factor contributing to the volatility of economic output (and presumably employment) experienced in small open economies (Wells, 1997: 32).

The small open economy$_{lp}$ concept developed here suggests that an economy open to international flows is subject to constraining tendencies that increase the likelihood of an outcome of unemployment. The impact of capital flows on the domestic economy is not necessarily restricted to the short term, since the impact on income and employment may not be easily reversible. Financial openness increases the vulnerability of the small open economy to exchange rate volatility. Where exchange rate volatility affects costs of imported inputs and the anticipated returns from exporting final products, expectations of volatility may result in investment projects being shelved. From this perspective, openness potentially increases instability, and acts against productive investment and full employment. Indeed, Milberg (forthcoming: 7) suggests that Keynes developed the *General Theory* in a closed economy to show the possibility of persistent unemployment in an economy without unbalanced international transactions.

In the 1930's Keynes warned that policies aiming at domestic growth and full employment are likely to be easier to implement where capital is not mobile (Keynes, 1933 (1982): 236). Keynes saw capital mobility as a threat to domestic economic and social goals, as mobile capital implied loss of control over the domestic interest rate. Indeed, without capital controls, achievement of full employment might not be possible (Keynes, 1980: 149). In his involvement with the establishment of the IMF, Keynes expressed his concerns regarding short-term capital flows, and sought to establish a multilateral agreement where both surplus and deficit countries would control capital flight, rather than leaving all the responsibility to the countries from which capital flees (de Cecco, 1979: 49). Keynes's reasoning for permanent controls 'at both ends' was not intended to create a reversion to autarky (Crotty, 1983:60); he wanted controls to facilitate international credit, and to distinguish between investment flows into, and speculative flows out of, deficit countries. Writing in 1941, Keynes's aim was to create an

environment where the achievement of domestic goals could be achieved (Keynes, 1980: 552-53).

While Keynes failed to have his ideas on capital controls accepted, openness to capital flows has continued to be regarded with caution regarding its effects on the domestic economy (see for example, Davidson, 1982, Blecker, 1996, FitzGerald, 1996 and Taylor, 1988). This attitude reflects a different theoretical construct in which the efficiency argument that openness will always and everywhere lead to efficient, equitable outcomes is rejected. In this view, an external shock, say in the form of a reversal of capital inflows, may not be the result of the market imposing 'discipline', but may be capricious (Watson, 1999: 64). There is a sense of arbitrariness in terms of both the definition and measurement of the 'fundamentals', to which the 'market' apparently responds (Harris, 1995: 212). These issues will be examined in section 4.6 below.

As presented in the small open economy$_{fe}$, then, the benefits of openness are self-evident, with negative impacts quickly absorbed by price adjustments. This contrasts with the small open economy$_{lp}$ that acknowledges that openness may provide opportunities as well as expose the economy to external shocks that constrain the small open economy.

4.3   Small openness and the balance of payments

The balance of payments may be seen as crucial to understanding the economic performance of a country or as merely incidental. These different views will be explored, employing the approaches to constraints developed in chapter one.

There are several different approaches to the balance of payments evident in the mainstream theory. These are the monetarist, large country, official, and foreign exchange gap approaches, respectively. They are essentially overlapping, rather than exclusive, variants. They are all underpinned by the notion that the automatic self-adjusting market

mechanism ensures complete and efficient utilisation, subject to the constraint of scarce resources.

Money is neutral in the monetarist approach to the balance of payments. This has to do with the assumption that the economy is operating at the limit of its resource constraint, at full employment, and that full employment is the norm, rather than a historical aberration (Frenkel and Johnson (1976: 25)). Given that full employment of all resources is automatically achieved, money plays a role of smoothing transactions (Schumpeter, 1954: 277), but does not affect real economic variables. While income and employment remain unaffected by changes in the money supply, the general price level is the only adjustment variable.

Since small countries are takers of the world price, the law of one price is applied (Whitman, 1975: 499). Most countries are too small to influence world prices and if there are relative price changes induced by devaluation, these will be transitory (Johnson, 1977: 225). In this view, exchange rates represent the relative prices of national moneys rather than national goods (Whitman, 1975: 499). In this situation, under a floating exchange rate system, a small country will have no capacity to maintain an interest rate higher or lower than the world interest rate. Attempts to do so will be frustrated by the flow of international capital.

From the perspective of the monetarists, the balance of payments is a monetary phenomenon (Frenkel and Johnson, 1976: 21). The overall balance of payments is seen as the difference between the change in demand for money and the change in domestic credit creation. A reduction in domestic credit, under a flexible exchange rate regime for example, will be offset by inflows of international reserves, so that the money stock is restored to its original level. The change in reserves is inversely related to the rate of growth of domestic credit expansion. An increase in the rate of domestic credit creation will result in erosion of reserves. At a full employment position, a change in the demand for money, or a change in

the supply of domestic credit may result in a change in prices, but income and the real economy remain unaffected. Important to this view is the stability of the desired level of real balances, as reflected in the stable demand for money function (Bouchet, 1987: 87).

Since monetary effects are seen to have primacy over non-monetary ones, any balance of payments disequilibrium is taken to indicate a change in the money supply, or in the rate of credit creation. In the context of the assured stability of the demand for money, it is the money supply that creates instability in the economy (Dow, 1993: 56). Under *fixed* exchange rates, the money supply is endogenous and hence not a policy variable (Whitman, 1975: 499). This stems from the notion that within the closed world system with a given money supply, there is a natural distribution of money among countries. An excess supply of money given a stable demand for money will raise domestic prices relative to those of imports. A balance of payments deficit (or a reduction in monetary reserves) will result. Since it is assumed that the natural distribution must rule, any attempts to address the deficit by policy will have ephemeral success at best (Johnson, 1976: 148). Under fixed exchange rates, the price level adjusts to changes in the money supply. In this view, differential rates of inflation are the result of relative differences in changes in credit creation - a country's inflation rate is determined by its change in credit creation, relative to the rest of the world. Under a *floating* exchange rate, it is the exchange rate that varies in accordance with changes in the domestic supply or demand for money, and any monetary imbalances are automatically corrected by international capital flows (Dow, 1993: 58). Hence liberalisation of foreign exchange markets is seen as a force for convergence rather than divergence (Sawyer, 1995: 21).

In the monetarist view, individual accounts of the balance of payments are not of concern, rather the overall position gives the position on the international reserves. In this Walrasian approach, the sum of all excess demands and supplies must be zero. Hence a deficit on the current account implies a surplus on the financial (bond) and official reserve

(money) accounts. If a deficit on the current account is matched by a financial account surplus, the balance of payments is considered to be in equilibrium.

It is the monetarist view which underpins the view that a deficit on the current account of the balance of payments, for example, may be the desirable consequence of capital movements based on the decisions of rational individuals (Pitchford, 1989). In this view, as long as the imbalances on the balance of payments are the consequences of rational decisions of private individuals and not the government, they have no social repercussions (Thirlwall, 1992: 3). Hence private transactions are assumed to be self-financing, and imbalances are assumed to exist in the short term only, without any consequences for output and employment (Coutts and Godley, 1990: 87).

The 'large economy' approach to economics mimics this attitude towards the balance of payments. Large country economics is based on the assumption that domestic policy, such as a lowering of interest rates in a large economy, impacts on international interest rates, potentially leading to an increase in aggregate demand world-wide, resulting in feedback effects which will support the initial policy of the large country. A similar policy would be unlikely to succeed in the case of the small open economy, if international trends were in another direction (Thom, 1976:70). In this view, the impact of the foreign sector on the domestic (US) economy is largely discounted. In recent arguments aired against international competitiveness and the threat it might hold, it is argued that the US economy is essentially closed (Krugman, 1996: 9, 99 and McCloskey, 1990:161). From the large closed economy perspective, concerns regarding the outcomes of openness are dismissed, with the suggestion that no one would consider the balance of payments a problem if it were not measured (McCloskey, 1990:155). In this view, the balance of payments can at best be viewed as a fictional constraint. Obviously, the foreign sector is less significant to a large closed economy, however, the assertion that the foreign sector is largely irrelevant to the US economy is not uncontentious. In addition, the balance of

payments is not seen to be irrelevant for all large closed economies (see Dutt, 1995, on India).

Another variant of the conventional conception of the balance of payments is what Bouchet (1987) has labeled the 'official' view. This may be seen to reflect the view of official organisations such as the IMF and the World Bank and OECD. Essentially this approach accepts that there may be short-term liquidity constraints facing countries, just as any growing firm requires external finance. Like a firm, a country can only expect this kind of liquidity to be provided if it continues to perform in terms of growth. A liquidity constraint can only exist in the short-term since unlimited opportunities for borrowing exist at the world interest rate. A country operating at the limit of its balance of payments is seen in the same light as an individual who is unable to exploit her creditworthiness further. In both cases, the prescription is the same: belt-tightening (Bouchet, 1987:94). Since such a constraint is costly, countries should seek to maintain a reserve of unexploited creditworthiness and foreign reserves so as avoid it (Williamson, 1984:73).

The 'foreign exchange gap' – like the saving gap – is a bottleneck constraint limiting growth of the economy. The bottleneck may be ascribed to either a shortage of saving or foreign exchange, and foreign assistance is required to fill whichever gap is binding (Joshi, 1970:121). In an *ex ante* sense, this gap can be seen as the estimated domestic investment needs over the available domestic saving, or as the difference between import requirements over expected export earnings (Mohr and Rogers, 1991: 47). In a national accounting (*ex post*) sense, the saving and foreign exchange gaps are of equal size, $I - S = M - X$, i.e. a surplus of domestic investment, I, over domestic saving, S, is reflected as a deficit on the current account of the balance of payments, as imports, M, exceed exports, X. The adjustment from *ex ante* to *ex post* involves either saving or exports falling below the projected level.

While the foreign exchange gap is referred to in mainstream texts, causality is usually ascribed to the shortage of saving, hence it is ultimately seen as a saving constraint. For example Lawrence Summers, quoted in Pollin (1996b: 255-56), remarks,

'...low national savings is the most serious problem facing the US economy. Low saving accounted for the trade deficit and the slow growth in living standards that continued through the 1980's.'

In this view, the foreign exchange gap is more correctly seen as a saving gap. It is the saving gap, or deficiency of saving, then, and not the balance of payments, which acts as a real constraint on growth in the mainstream scheme. The current account deficit is seen to reflect a shortage of saving. This is a real constraint, rather than a financial constraint.

The Post Keynesian view of the balance of payments has largely been formed by the development of Harrod's foreign trade multiplier by Thirlwall (1979), which has also become know as Thirlwall's law. The substance of the law is that, when demand expands in an open economy, balance of payments pressures may occur before short-term capacity is filled. This pressure, which may be a growing deficit on the current account, is likely to result in expenditure-switching or expenditure-reducing policies, which are likely to impact negatively on investment and expectations, resulting in a reduction, or stagnation, of income and employment. In this way, the balance of payments can be seen to exert an influence on the economy. The mechanism by which pressure which is brought to bear varies with the exchange rate regime. In the case of a floating exchange rate, a high current account deficit may lead to expectations of a currency depreciation and short term capital outflows may accompany lower investment associated with higher prices for imported capital goods. In the case of the managed float, the authorities are likely to intervene to protect both the currency and reserves by raising interest rates. This may have the joint effect of dampening effective demand and attracting short-term capital. In the longer run, the constraint on investment may result in a technological and productivity

backlog, that undermines export capacity and quality, which may further weaken the balance of payments position (McCombie and Thirlwall, 1994: 232).

Thirlwall's approach to the balance of payments expresses the constraint as an explanation for differences in international growth rates, with the growth rate made possible by the position on the balance of payments expressed by the following equation:

$$y_b = \frac{x}{\Pi}$$

where y_b is the country's balance of payments equilibrium growth rate; x is the rate of growth of export volume, and Π is the income elasticity of demand for imports. Hence the balance of payments equilibrium growth rate can be seen as the ratio of income elasticities. Hence Thirlwall's law suggests that growth is determined by the balance of trade. Changes in the terms of trade and capital inflows are possible sources allowing for deviation from the determinism of this balance of trade equation. In small open economies, the role of capital flows may be especially important. Thirlwall has extended his model to account for capital flows, and suggests that for developing countries in particular the rate of growth may be constrained by the rate of growth of capital inflows (McCombie and Thirlwall, 1994:245).

This model suggests that if there is initially a deficit on the current account and exports and imports have an equal rate of growth, the deficit will continue to widen. Unless this deficit is met with capital inflows, the situation is likely to be unsustainable as it implies a drain on reserves. The model also implies that, if the current account deficit is enabled by capital inflows, the small open economy will become successively more steeped in debt. This will result in the debt-servicing requirements growing, which may in turn induce the need for further short-term capital flows. As has been suggested earlier, the composition of exports and imports is likely to lead to a deficit on the current account of the balance of payments. If labour is unemployed in a small open economy because of the

lack of capital goods imports, then imports represent borrowing in the present to increase both present and future production. If the projected rate of growth that the imported capital goods will help to achieve is greater than the interest required to finance the balance of payments deficit, then an international loan should be sought (Kregel, 1975:178).

At first glance there seem to be similarities between this approach and that of the 'foreign exchange gap' approach of the mainstream. Both have to do with constraints on growth. However, the two approaches do differ in their concept of constraint. In Thirlwall's model, the consequences of openness are reflected, rather than the consequences of scarcity. Since there is no automatic mechanism ensuring maximisation, the elasticity represented by Π, captures the notion that there may be a constraining tendency. There is in addition, a sense that, through financial openness, this constraining tendency can be managed by financial inflows. Of course, once the economy is opened to financial flows, liquidity preference for foreign assets comes into play, and this may create or exacerbate the constraining tendency of the current account captured in Thirlwall's law.

However, Thirlwall's model does not address the concern as to whether finance will be forthcoming and whether the small economy may become excessively vulnerable to the withdrawal of the capital that has facilitated the current account deficit. In the Post Keynesian view, exclusion from access to foreign liquidity can result in the balance of trade exerting a constraining tendency on the level of output and employment. Once an economy is financially exposed to international flows, it may be vulnerable to withdrawal of foreign credit. The composition of capital flows, their motives and availability, and their susceptibility to change with global liquidity preference will be examined in section 4.4.

These first two sections of the chapter have attempted to highlight the differences between the conventional representation of the small open economy$_{fe}$ and the small open economy$_{lp}$ developed here. Table 4.1 formalises some of the more pertinent differences.

Table 4.1 Small openness: Two views

Aspect of comparison	Small open economy$_{fe}$	Small open economy$_{lp}$
Outcome of the model	Full employment assured through adjustment mechanisms	Persistent unemployment possible
Impact of openness on constraints	Relieves constraints of resource endowments. Financial liberalisation may reduce potential for spanners-in-the-works	Constraining tendencies may become more severe – since country differentials may be worsened by trade
Consequences of Trade	Beneficial (by theory of comparative advantage)	Scale difficulties and composition of imports may create tendency towards current account deficit
Composition of imports	All imports are consumption goods	Imports are skewed towards capital and intermediate goods
View of current account deficit	Various, although general acceptance that there is no impact on real economy, other than short- term liquidity effect. May reflect a shortage of saving	Possible constraining tendency on output and employment
Consequences of openness of financial account	Openness of the financial account leads to efficient allocation of capital and convergence between countries	International liquidity preference may mean that foreign capital is not available when needed most, flows of capital may exacerbate divergence between countries.

In the small open economy$_{fe}$, which essentially represents the mainstream view, the market mechanism ensures maximum utilisation, subject to the constraint of resource

endowments. By the law of comparative advantage, trade may result in a pushing out of the transformation curve, suggesting the benefits of specialisation and trade. This model underpins the theoretical benefits of financial liberalisation, leading to greater access to scarce saving and reducing spanners-in-the-works. The monetarist approach to the balance of payments underpins the notion that the balance of payments has no real effect on the economy.

By contrast in the small open economy$_{lp,}$ persistent unemployment is a possible outcome of the enabling and constraining tendencies underlying the monetary economy. In an open economy, a current account deficit may be the consequence of scale difficulties and the requirement of imported capital goods. This reflects a state of constraint resulting from the tendencies associated with openness to trade. Traditionally, Post Keynesian theory has neglected the consequence of the openness of the financial account. While financial openness may encourage inflows may help the management of a persistent current account deficit, it may also lead to capital outflows representing liquidity preference for foreign assets. The next section will analyse in more detail the role of liquidity preference and financial constraints emanating from financial openness in the small open economy$_{lp.}$

4.4 Liquidity preference, capital flows and constraints

4.4.1 Liquidity preference and international money

The existence of international monies in an open economy can contribute to unemployment through the uncertainty of exchange rate fluctuations and the costs thereof (Davidson, 1982: 94). However, more fundamentally, the existence of international monies exacerbates the domestic effects of liquidity preference. Whereas in a closed economy, the national currency, as the most stable and liquid of assets, is money, in an international setting, there are many 'moneys' (Dow, 1999b: 154). In times of uncertainty,

if the value of national currency is unstable, it is likely that a more stable 'foreign' money will be held. The currency held in order to satisfy the liquidity preference of investors will be a matter of the relative liquidity and stability of the currency, as well as a matter of convention, in terms of what is acceptable (if not legal) tender (ibid.:155). The longstanding international liquidity preference for US assets was institutionalised by the IMF adopting a dollar exchange-standard. Hence the US dollar came to be seen as a reserve currency (Wallich, 1984:186). In addition, the development of the banking sector in the US has contributed to a climate of financial innovations which have encouraged capital inflows (Kregel, 1993). The innovation in the banking sector was stimulated by attempts to bypass US regulations on interest rates and capital outflows. The kinds of financial instruments developed and the gradual blurring of distinctions between the services offered by different types of financial institutions have increased competition between financial institutions and encouraged higher and more variable interest rates. In spite of the disparities of capital stocks between developed and developing countries, innovation in financial centres has created the impetus for capital flows to continue to find their way to the US and other developed countries (despite not necessarily realising greater returns (Kregel, 1993: 187)).

In terms of Keynes's analysis of the demand for money, transactions, speculative and precautionary demand contribute to liquidity preference. In an open economy, demand for the means to enable international payments for goods and services and capital outflows is regarded as a stable function of world trade and capital flows respectively (Dow, 1999b: 156). Given that the turnover in foreign exchange markets exceeds world trade by a significant order of magnitude, there is more to international liquidity preference than transactions demand. It is these other motives for holding foreign currency, which, in Davidson's (1982:120-122) opinion, disturb Friedman's assertion that a flexible exchange rate creates the circumstances for independent monetary policy. Because currencies may

be held for reasons other than meeting contractual obligations, changes in liquidity preference between currencies are likely to result in management of the exchange rate, and hence a monetary policy which is no longer independent. This occurs as domestic and foreign currencies can be seen as substitutes in several ways.

In particular, speculative demand arises so as to take advantage of speculative opportunities. Speculative behaviour is associated with a belief that holding money is the only alternative, as holding other assets would imply certain loss. In an open economy context, this can involve holding foreign, rather than domestic, currency. An investor who holds precautionary money balances – or in this case, precautionary holdings for liquid assets - is unsure of the probability of outcomes. The monetary authorities, for example, may seek to hold reserves of foreign currency in order to deal with unforeseen capital outflows. The size of the reserves will reflect the potential strength of the outflow. The private sector in an open economy may also hold precautionary balances in terms of long term loans in foreign currency. These motives will be discussed further later with reference to capital flight.

4.4.2 Capital flows: a brief overview

Capital flows play a major role in the adjustment process of the open economy and so the financial account (essentially the 'old' capital account, the net flows of portfolio, foreign direct investment and other flows) is more than simply the mirror image of the current account. The convention in traditional trade theory and Keynesian (but not Keynes himself, as has already been seen) macroeconomics of explaining balance of payments adjustments in terms of the price and cost fluctuations of current account items, has tended to obscure the importance of capital movements in cushioning and stimulating the balance of payments (Triffin, 1969:43). Indeed, with some estimates suggesting that global trade in foreign exchange markets is 70 times the size of international trade in goods and services (Davidson, 1999:3), there is strong evidence for the need for a closer

look at financial flows. Indeed, while the net figure on the financial account of the balance of payments is relatively small compared to the size of the trade account, the financial account can be seen as the tail that wags the dog (Wallich, 1984). While the dominance of capital or current account items varies over time and for different countries (Kindleberger, 1987: 11), understanding financial flows and the financial account is important for a more complete explanation of the balance of payments (Whitman, 1967: 10). The discussion in this section examines the impact of, and reasons for, capital flows into and out of the small open economy, and follows on from the discussion of flows between the periphery and centre in section 3.5.

Theoretically, there ought to be a tendency for capital to flow from capital-abundant areas, where returns are relatively low, to capital-scarce regions with relatively higher returns to capital, and at times this has been borne out historically (Kindleberger, 1987:17). As countries become more developed, the return to capital tends to decline so, generally, higher returns ought to be on offer in less developed regions. In terms of the balance of payments, the outflow of capital from developed countries would be reflected as capital investments and loans on the financial account in developing countries. The ensuing surplus on the financial account of the balance of payments of developing countries would enable the purchase of imported capital and consumption goods from developed countries and perhaps also fund the interest payments on loans from developed countries. The countries receiving capital inflows would be expected to invest the capital in exporting industries or in industrial capacity with the potential to export (Kregel, 1993:183), in order to generate the foreign currency to meet future loan repayments.

Triffin (1969: 45) suggests that, in the 19th century at least, international capital movements tended to follow a cyclical pattern rather than a straightforward trend from capital abundant to capital scarce nations. The cyclical pattern of international capital flows impacted on exporters and importers of financial capital differently. A mere

slowdown in capital outflows, for example, could alleviate the pressure on central banks in capital-exporting countries to raise interest rates and constrain credit. However, those countries receiving capital inflows were far less able to control the inflows – which followed the trade cycle in more advanced countries. Hence the surge of capital inflows in boom times and the dearth of capital inflows in times of global recession contributed to the economic instability which characterized countries on the periphery. Hence while capital inflows played a contributory role to development in recipient countries, they remained vulnerable to perverse fluctuations in capital flows (perverse in the sense of flowing out when it was most needed).

This cyclical pattern of flows from advanced to developing countries was disrupted by the two World Wars and did not re-establish itself until the relatively stable 1960's (Kregel, 1993:183). Indeed, expansionary fiscal and tight monetary policy in the US, together with high dollar interest rates, led the US to reverse its role as capital exporter from the turn of the century (Triffin, 1969:45) to capital-absorber in the early 1980's (Alworth & Turner, 1991: 124).

In terms of the notion of efficient allocation of capital, the flows of capital into the US can be seen as paradox (Aliber, 1984:195). In the international balance of payments, a surplus on its financial account means that the US is essentially competing for capital from the rest of the world. To the extent that capital inflows are necessary for investment and development expenditure in the small open economies, small open economies would be disadvantaged by the capital flows into the US. The deficit on the US current account suggests that expenditure on imported goods and services might result in increased demand for the products of small open economies. However, the distribution of this demand is unlikely to be even and may not compensate for anticipated capital flows in another world order. The liquidity preference of domestic investors in the periphery for centre assets (also reflected in capital outflows) contributes to the constraining tendency

on small open economies. These flows are often referred to as capital flight – a topic taken up later in the discussion. The balance of payments of developing countries would reflect an outflow of capital (representing capital flight or repayment of debt) and a surplus on the current account, reflecting a reduction in domestic absorption in order to support the deficit on the financial account. In this way, a surplus, rather than a deficit, on the current account reflects a state of constraint.

In the aftermath of the debt crises of the 1970's and the general liquidity preference to hold centre assets in the 1980's, came the realisation that, contrary to the prediction of the theory of capital markets, capital did not, in general, flow from rich countries to poor ones as predicted (Lucas, 1990). Nor did saving rates diverge markedly from investment rates where capital flows did occur (Obstfeld, 1995), an expectation flowing from the saving-gap approach to investment and growth. In general, after the debt-crisis of the 1980's, small countries were generally denied both financing and funding. The liquidity preference of the international banking system for the assets of developing countries fell sharply, so countries that had previously been deemed creditworthy were now excluded from international credit. This substantially affected their import capacity and hence planned investment (Fitzgerald, et al, 1994).

In this context, the resurgence of capital flows to emerging markets, or middle income countries, in the 1990's, generated a number of explanations. First, private capital flows became dominant in global financial flows. No longer were the flows primarily public sector loans or aid as they were in the 1970's (Corbo, 1999: 13). Second, there was a dramatic worldwide shift towards financial integration (Bacchetta and Wincoop, 1998) which made the mobility of capital flows possible. Third, in a generally recessionary environment, the interest rates of developed countries were low and had for some time been declining. (In 1992, US interest rates fell to their lowest levels since the 1960s (Calvo et al, 1996: 126).) Fourth, large institutional investors with managed funds re-

entered emerging markets, prompted by the need to diversify their holdings and achieve potentially higher returns.

The emerging markets that were achieving highest growth rates and appeared to be most sound were the first recipients of private capital, but flows also spread to other countries. As in the previous two decades, countries with access to foreign flows were more likely to be middle income countries, with relatively developed non-agricultural sectors (Fitzgerald, et al, 1994: 199).

Kindleberger (1987: 15-16) suggests that the cautious spread of capital flows may have to do with the limited 'information' horizons of investors expanding and contracting with events. Hence regional externalities play a role here – a large inflow of capital to a neighbouring country makes smaller countries more acceptable to global investors. In a similar way, horizons can contract. The expansion and contraction of horizons are also referred to as contagion effects (Calvo et al, 1996; 127). The investor horizon of the 1990's did not expand as far as the majority of developing countries: in spite of the tripling of private flows between 1987 and 1994, the poorest of countries continued to be excluded in terms of private international capital. This disadvantage was not alleviated by official flows over this time, as official aid stagnated (Fitzgerald, 1996:81).

Evaluation of the primary causes for the capital inflows to some small open economies suggests that 'push' factors - those external to the recipient nations - were largely responsible for the increase in private capital flows in the 1990s. Low returns to developed country assets played the dominant role in decisions to invest elsewhere – hence there was a check on capital flows to emerging markets when US interest rates rose in 1994 (Calvo et al, 1996:126). As in the Triffin account of the pattern of flows in the 19th century, small capital importing countries are largely unable to control inflows. Capital inflows appear to be determined by the need of investors in developed countries to diversify holdings and take advantage of high returns in certain countries. For big

institutional investors, the value of investing in emerging markets lies in the diversification into markets that do not appear to be correlated with developed markets (Ahmed & Gooptu, 1993: 11). These countries are attractive when developed countries are in a slump, but face reversal of capital flows as interest rates in developed countries rise. This explains to some extent why the horizons of investors have not expanded to the least developed countries. Capital flows seeking highest returns are unlikely to be interested in economies with high levels of poverty, low levels of productivity and mediocre growth rates. None but the high flyers are attractive under these circumstances. The 'pull' or internal conditions of the recipient countries are important only to the extent they make a particular country, or region, relatively attractive.

The general consensus of the importance of 'push' or external factors in determining the capital inflows to small open economies raises the issue of their vulnerability to reversal of the flows. A change in the external, global environment could stimulate an outflow of capital, or reduce the inflow. This would have negative consequences for countries that had become reliant on them. In addition, sudden reversal of flows due to external factors may result in contagion. If external factors dominate internal factors, then an outflow of capital could affect other similarly classified countries. Small open economies importing financial capital remain subject to external conditions and may be seen on the fringe of international financial provision.

4.4.3   *Composition of capital flows and financial vulnerability*

Concern regarding the sustainability of capital inflows suggests the need for further examination of the type of capital flows moving in and out of a country. Inflows can represent global approval of macroeconomic performance, but they can also amount to a speculative attack when policies are seen as unsustainable (Calvo et al, 1996:138). Outflows may represent compensatory flows as a direct response to changes in other items

in the balance of payments (such as trade credit or repayments of long term borrowing) or capital seeking higher returns or greater security (Kindleberger, 1987: 41).

Although it is generally accepted that different types of capital flows have different economic implications, the official classification of capital flows does not always reveal the motive of the investor or the function of the investment (Claessens, et al, 1995:154). Short and long term distinctions are a case in point. For example, short-term maturities may be rolled over to create longer-term loans and equities can quickly be disposed of (Kindleberger, 1987: 13 and Alworth & Turner, 1991: 121). Criticism that the short- or long-term classification is largely irrelevant in practice may have contributed to the adoption of the new (1993) classification of the IMF for capital flows - which distinguishes in function, between direct investment, portfolio flows and other investment. However, given the fungibility of capital – where an investor in a factory may hedge her long term exposure through some compensatory financial transaction (Maxfield, 1998a: 74) – it may be that not too much store can be put on this new classification either. Nonetheless, while imperfect, it is a useful means to provide an overview of foreign capital exposure (Griffith-Jones, 1995: 71).

From a perspective of liquidity preference, it is useful not only to identify the composition of flows – but also the type of investor. Keynes distinguished between investors interested in the long-term prospective return of an investment and speculators who were interested in 'beating the gun' – outwitting others in the same game (Keynes, 1936: 155). A survey of European investors in Latin America (by Griffith-Jones, 1995) revealed that different types of investors invest in the same financial instruments – with different expectations and 'sustainability' criteria.

Kindleberger (1987: 20) points to the different types of investors interested in early canal companies in Britain. Type 1 investor was interested in investment in the canals because of its direct effect on other interests. Type 2 investor was looking for a long-term

outlet for saving. Both of these types of investor bought shares to hold. Type 3 investor was a sophisticated speculator with profit expectations – his plan was to achieve capital gains through sale of the shares. Type 4 investor was an unsophisticated speculator who came late into the action – made aware by the speculative gains that there were profits to be had. This last category included 'small-time' investors – such as widows and retirees. In the same way, in the 1990's, institutional investors of pension funds and aggressive investment managers may have different expectations regarding the relative importance of diversification relative to return on their equity portfolios (Griffith-Jones, 1995: 61).

Given the association of productive investment with foreign direct investment (FDI), the investor who invests long term is generally preferred (Keynes associated this kind of investment with marriage (1936: 160)). FDI is defined as 'lasting' management interest in a firm. It is seen as longer term and hence more sustained, and less likely to sudden reversal than portfolio flows. With FDI, far more than portfolio flows, the relative attraction of the 'pull' factors of the particular country become important. From the trends in FDI flows, it appears that the legal, tax and institutional environment are important to foreign investors – as are market size, labour productivity and infrastructure. In general, FDI flows tend to be cumulative, further enhancing the competitive advantages of the relatively more developed countries, whereas less developed countries continue to be bypassed (IFC, 1998).

Corporate portfolio adjustments, in terms of foreign investment, may have more to do with corporate strategy than macroeconomic factors (Alworth & Turner, 1991:122). This raises the issue of whether direct investment flows are unequivocally good for the recipient country, as the interests of firms can diverge from those of the nation (Levine, 1996: 49). Direct investment has been associated with constraints on government policy, and usurping of national sovereignty (Wolff, 1970: 228). However, while this may have encouraged an attitude of suspicion towards foreign direct investment in the past, the

positive demonstration effects of foreign direct investment in the newly industrialised economies (Kozul-Wright and Rowthorn, 1998) has led to a reassessment and small capital-importing countries can be seen as actively trying to woo foreign direct investment (UNCTAD, 1998).

Nonetheless, the link between direct foreign investment and productive investment is essentially a *potential* association only: in developing and transition countries, FDI has been associated with privatization. Although the change of ownership from public to foreign may be hailed as a positive step towards efficiency, experience in Hungary, for example, suggests that the productive benefits of flows due to privatization are a far cry from that of greenfields investment (Wyplosz, 1999: 244).

By contrast with the commitment generally associated with direct investment, portfolio investment flows are associated with short-term gains and are seen to respond to potential yield (Maxfield, 1998a:72). Portfolio flows are usually classified in terms of debt or equity flows. The former usually refer to funds raised on the international bond market, the latter to purchases of shares, either directly or indirectly (in country funds, say) of the recipient stock markets. In evaluating the vulnerability of the capital-importing country to rapid withdrawal of portfolio flows, the maturity of bonds is an important issue. If most bonds have a short maturity, the country is potentially vulnerable to the stock of bonds rapidly dissipating in the face of a domestic crisis or external shock (Griffith-Jones, 1995: 68). Generally, bonds tend to be issued on a fixed interest basis. This compares with the 1970's where variable interest rates created severe debt-servicing difficulties for Latin American countries, in particular. However, if bonds have fixed debt-servicing costs, there is no mechanism for the servicing to vary with borrower's capacity to pay (ibid. 69). From this perspective, equity flows rather than flows associated with bond purchase may be seen as more advantageous to the small open economy as dividends are inherently more sensitive to the business cycle and allow a better match between equity service and ability

to pay (ibid.). However, flows into equities remain easy to reverse, and likely to respond to external shocks.

The strong connection between the equity market and the exchange rate in small open economies makes the stock market sensitive to both capital inflows and outflows. Foreign capital inflows into the equity market are likely to push up share prices and the value of the currency. Where it is generally perceived that participation in the stock market of a small open economy may reap significant rewards, substantial portfolio inflows may lead to capital market inflation. The best possible return from capital market inflation appears to be had by adding to that inflation (Toporowski, 2000:6), so while capital continues to flow inward, speculative profits may be made. This process will continue until demand drops off for some reason, then the unprecedented rise in the value of the stock market may be mirrored by a substantial fall in equity values and the currency. Foreign participation may add to the volatility of the stock market and the currency of the small open economy.

A large-scale equity sell-off by foreigners in a small open economy is likely to set off a cumulative process of sharp price declines in equities and continued downward pressure on the exchange rate, if foreigners sell their holdings to residents. In the case of some equity instruments, such as American or Global Depository Receipts (ADR's and GDR's respectively), sales will be made to other foreign residents, which may affect equity prices more than the exchange rate (Griffith-Jones, 1995:70 and Ahmed & Gooptu, 1993: 10). In either case, the net outward flow of capital or the sharp decline in equity prices that may result is likely to affect current income, through the wealth effect and may also have an impact on future income. The fall in equity prices has a negative effect on the marginal efficiency of capital of new investment and hence the rate of new investment is also likely to fall (Keynes, 1936: 151). In addition, the domestic banking sector may be jeopardised if companies affected by the sharp decline in equity prices are large borrowers

of the banking system. The vulnerability of the system to a process of debt deflation is examined in more detail in chapter six.

At the time of financial crisis, agreement to roll over or restructure debt by all creditors would be most beneficial to all parties – including the small open economy (UNCTAD, 1998:840). However, the number of bondholders (potentially thousands) works against this type of concerted response (Griffith-Jones, 1995:67-8). International bodies are currently seeking ways in which private creditors can be included in a 'bailing-in' exercise. Although this process is likely to raise the initial cost of borrowing by small open economies, it may also reduce opportunistic loans, made on the basis that the courts will rule in favour of private creditors (*Economist*, 1999).

The process of portfolio investment, based on speculative activity, is likely to encourage capital flows based on superficial, rather than extensive, knowledge of the economies concerned. In terms of Keynes's beauty contest analogy, speculative activity is about forecasting the psychology of the market, and hence is focussed on assessing what average opinion expects average opinion to be (Keynes, 1936: 157-8). Indeed, speculative activity is easier than forecasting the prospective yield of an asset over its whole life - which is a task fraught with hazards (ibid.158). Investors who are yield-oriented are more likely to be driven by comparative returns in OECD countries than the economic policy of a recipient country (Maxfield, 1998a:71). Detailed information of the country is regarded as unnecessary. Hence countries on the periphery are subject to decisions being made in far-removed centres, on the basis of superficial or incomplete knowledge. From the perspective of a speculative investor interested in short term gains through outguessing the market, rather than engaging in an evaluation of *real* returns, this information is superfluous. Where the returns to investment are not judged to be high, peripheral nations will be subject to investors erring on the side of caution, and reducing their holdings of a weakening currency as a precautionary measure (Davidson, 1982:112).

Relative to outflows, capital inflows are generally regarded as good. One author compares capital inflows to chocolate – while it may be good for you - too much makes you sick (Wyplosz, 1999:242). However, capital inflows should be regarded as temporary, although no-one knows how temporary, with external conditions essentially dominating the sustainability of the flows (Calvo et al, 1996: 137). For this reason, although interest rate shocks and cyclical instability in small open economies are seen to account for the variability of capital flows (Eichengreen, 1991: 22), it could also be that the variability of capital flows might account for the cyclical instability in small open economies. Hence there is likely to be a process of circular and cumulative causation. When interest rate shocks leading to capital outflows from small open economies are accompanied by a slump in export prices, and possible bank fragility, the creditworthiness of these economies may come into question. In spite of defensive raising of interest rates and depreciation of the currency, capital outflows may result in the small open economy defaulting and being excluded from international finance (ibid.22). It is the threat of reversal of capital inflows that makes the small open economy 'vulnerable' (Calvo et al, 1996). The vulnerability to capital reversal and credit withdrawal represents a state of constraint facing the small open economy$_{\text{lp}}$.

4.5 Centre-periphery comparisons in an international context

While much of the analysis presented in chapter three concerning the flows between centre and peripheral regions may be directly applied to the international context, where centres are countries with reserve currencies, there are a number of differences. First, whereas in the regional context there are regional fiscal stabilisers, which work towards reducing the differential between centre and periphery regions, there is no such mechanism in a small open economy. Second, the existence of other international moneys means that the liquidity preference of residents for foreign currencies affects the value of

the domestic currency, while at the same time affecting perceptions of the country's creditworthiness. Third, given the tendency for capital to flow from the periphery towards the centre, governments of small open economies attempting to attract capital inflows may find themselves financially vulnerable with limited policy options. While the first point is noted, it will play no further role in the analysis. Points two and three are discussed further in sections 4.5.1 and 4.5.2, respectively, below.

4.5.1 Liquidity preference for centre financial assets

Generally, the liquidity preference of domestic investors for centre assets may be divided into two types. Where domestic investors choose to hold centre assets in order to take advantage of the *opportunities* they offer, this is seen as 'normal' capital outflow. On the other hand, where the choice of domestic investors is based on motivation to *flee* domestic conditions, the capital outflows are referred to as capital flight (Lessard & Williamson, 1987: 202). Hence the capital used by Japanese households to buy assets in the US is regarded as normal capital outflow, while Argentineans buying those same assets are seen as contributing to capital flight (ibid. 201-202). However, it is difficult to distinguish between these motives and Lessard and Williamson (ibid. 204) ultimately conclude that it is more meaningful to focus on 'resident capital outflow' rather than getting tied up by these distinctions.

Whatever the motivation, capital outflows from residents siphon off demand from the small open economy. Where a small open economy is already experiencing pressure on the balance of payments, associated with capital outflows to service debt repayments, additional outflow of residents will further exacerbate the need for expenditure-switching and reduction in expenditure-absorption adjustment, so as to balance the capital outflows with a current account surplus. With upward pressure on interest rates and likely depreciation of the currency, the production of a surplus on the current account is often

achieved via a contraction in domestic investment expenditure, especially in small open economies reliant on imported capital goods. Hence the combined outflow of capital from domestic as well as foreign investors will serve to constrain employment-enhancing production in the short-term, and is likely to have negative long term consequences for the rate of growth of the small open economy (ibid. 224). The consequences of resident capital outflows also contribute to a vicious cycle – if outflows continue on a large scale for a considerable period of time, such as occurred in Latin America in the 1980s, transnationalisation of domestic capital will take place. This may lead to the departure not only of capital, but also of the entrepreneurial class ('native-capitalists') to the centre - which is likely to have devastating effects on local investment and hence development and growth in these economies (Rodriguez, 1987:141-142).

The preference of domestic investors for centre assets is likely to continue in spite of the economic return to domestic assets exceeding those of foreign assets (Lessard & Williamson, 1987: 225). This may be seen as the result of the difference between the financial return accruing to the private investor and the economic return that accrues to society. (Economic returns and risks refer to total returns to society – adjusted for price distortions and externalities – compared to financial returns which accrue to individuals at market prices, net of taxes.) Driven by financial returns, a private investor is likely to flee currency devaluation, inflation, fiscal deficits, low growth and a debt overhang. In addition, where there is a discriminatory treatment of residential capital, on a taxation basis, for example, resident capital outflows may co-incide with foreign capital inflows.

A flight of domestic capital away from domestic borders can be interpreted as greater liquidity preference for foreign assets. From the perspective of investors in peripheral countries, long subject to the vagaries of capital flows, ownership of foreign assets is likely to be seen as more liquid than domestic assets (Dow, 1993:167). In particular, assets of centres, are likely to be the most liquid assets for small open

economies. Ownership of centre assets can be seen as a rational response in an unpredictable world (Minsky, 1987: 102).

In terms of Keynesian analysis of the demand for money, one can interpret the demand of nationals for foreign assets as precautionary, as well as speculative. Residents of a country may believe that the value of their currency is likely to decline and may take speculative positions against the currency, which unroll as certain crucial trading levels are reached. This may contribute to a hedge position based on expectations which are self-fulfilling. In addition, a precautionary holding of foreign assets by a domestic investor occurs when the future is uncertain and, while instability is expected, the timing of the volatility is unknown. Holding foreign centre assets may be seen as an expression of liquidity preference of the precautionary kind and can be interpreted as an expression of risk aversion. For this reason, resident capital outflows are likely to continue even if returns to domestic assets are perceived to be greater than those of financial centres.

While resident capital outflow may be rational (in response to liquidity preference and financial rather than economic returns), capital flight contributes to the vulnerability and downgrading of the domestic economy's assets. The very opening of the small open economy may contribute to the perceptions of uncertainty and potential vulnerability, enhancing the desire to hold foreign rather than domestic assets. The process is circular and cumulative. As the economy becomes integrated with global financial institutions, it becomes exposed to external shocks and fickle capital flows. Hence, although domestic capital outflows may take place even while capital controls are in place, removal of controls and integration with the world economy may contribute to reasons for capital flight. From a domestic investor's viewpoint, openness brings opportunity to diversify portfolios, but also tends to encourage precautionary holdings of centre assets. This tendency may contribute to the erosion of the value of the domestic currency and hence affect the perceived assessment of the economy by domestic and foreign investors alike.

The discussion above on the scramble to move out of assets which are perceived to be less liquid (such as the equities of a small open economy), to those which have retained their liquidity (such as the currency of a centre country), emphasises the functional mobility of capital.

Keynes introduces us to this concept of functional mobility of capital in his discussion of the role of the stock market in organizing funds for investment. While Keynes (1936:160) acknowledges the need for an organised market where assets are perceived by the individual to be liquid (although not collectively), its impact on new investment is ambiguous. The liquidity of the stock market attracts investors – as they have a sense of being able easily and quickly to reverse decisions. Investors hence believe they each have access to a *fast exit* (Davidson, 1999:13) and in this sense the liquidity of the market facilitates investment. But the continuous process of re-evaluation of equities creates the potential for substantial volatility in equity markets. Hence, because speculative activity rather than long term evaluation of the prospective yield may dominate stock market activity, the investment process might be affected. This is because the fall in equity prices involves a decrease in the marginal efficiency of the corresponding capital. And since new investment depends on a comparison of the marginal efficiency of capital and the rate of interest, if equity prices fall, it is as if the rate of interest rises - squeezing marginal projects out of the profitable range (Keynes, 1936: 151).

In a global environment where assessment of the returns to productive investment also has to take into account exchange rate movements, volatility in exchange markets undermines the capacity and confidence of entrepreneurs in their ability to appraise project returns (Davidson, 1999:3). While uncertainty does not have to lead to instability, the institutional arrangements characteristic of the global financial structure (Kregel, 1993) have created considerable instability in foreign exchange markets. This has contributed to a move out of productive investment by global investors. Annual growth in OECD

investment in plant and equipment has halved on average, in the post-1973 era, as compared to the years prior to the demise of Bretton Woods (Davidson, 1999: 4). Financial innovation in international financial systems, in particular the development of derivative markets, has resulted in capital holdings switching to financial assets (Watson, 1999: 61). This suggests that financial liberalisation has encouraged a demand for financial liquidity that has led to higher global interest rates and excessive capital costs for firms engaged in productive activities (ibid.).

The returns on financial assets and lower transaction costs of financial transactions make financial holdings attractive. Derivative markets allow investors to hedge against losses, which encourages corporations to seek 'risky' profits (Harris, 1995: 212). This also allows speculative flows to be 'self-fulfilling', even given the best attempts of intervention by central bank authorities. (Total official reserves of the central banks of all IMF countries are less than the equivalent of the daily turnover on the world foreign exchange markets (Watson, 1999: 64).) This suggests that holders of financial assets have reason for greater confidence in their capacity to 'beat the gun' than entrepreneurs have to predict the long-term return on productive investment, as Keynes has suggested (1936: 158). The increased volume of activity in financial markets has increased instability in exchange and interest rates and has undermined perceptions of certain returns to productive capacity. This in itself is sufficient reason to encourage liquidity preference for financial assets.

The implications of functional mobility of capital expressed as the global preference for holding financial rather than productive assets, suggests that the greater sophistication of centre financial structures and instruments contributes to the cumulative demand deficit of peripheral countries. Hence the preference for liquid international financial assets contributes to the likelihood of unemployment in small open economies.

The way in which domestic outflows can be addressed involves creating an overall investment climate conducive to both domestic and foreign investment (Dornbusch, quoted in Lessard & Williamson, 1987: 217), as well as removing discriminatory regulations against domestic investors. It is suggested that, in terms of creating a climate conducive to retaining domestic and attracting foreign capital, expansionist macroeconomic policies designed to increase public-private investment in productive activities should be considered – instead of the orthodox budget-cutting and anti-inflationary policies (Rodriguez, 1987: 143). However this runs counter to the Washington consensus, and is hence unlikely to be followed.

The consequences of vulnerability to credit withdrawal are tied to the capacity of small open economies to withstand volatility on the financial account. In the small open economy$_{fe}$ model, where perfect markets are assumed, management of volatility is a trivial issue. Capital flight is not an issue for the small open economy$_{fe}$, where perfect capital markets exist, as only a small increase in the interest rate differential ought to be sufficient to reverse the outflow of capital. The experience of emerging countries, however, suggests that capital markets are imperfect and asymmetric. While capital outflows may be highly responsive to price, capital inflows may not be. The situation in Mexico in the 1980's where capital could not be attracted at any price, is a case in point (Ros, 1992: 203). Hence emerging economies are more likely to be small open economies$_{lp}$.

Once the asymmetries of international markets are acknowledged, the capacity of the small open economy to manage volatility tends to be restricted (see Schor, 1992: 8 and Epstein and Gintis, 1992: 171). Where small open economies are exposed to foreign capital, they have relatively little room for maneuver in terms of changing their exchange rates and interest rates, as it is in these areas that the international markets exert policy choice constraints over small open economies (Maxfield, 1998b: 1210). In addition,

Grabel (1996) adds that awareness of vulnerability may manifest itself in governments of small open economies attempting to pre-emptively meet the expectations of international agencies and investors. In the same way, in the scramble to attempt to win back international favour after an episode of withdrawal, governments will engage in policies aimed at mollifying foreigners. The attempts to ensure investor confidence are likely to be undermined by the possibility that global prescriptions may work against the favourable growth of the small open economy – so the prescribed policies may intensify the country's vulnerability (Grabel, 1998).

If international financial conditions are the most significant factor influencing capital flows into small open economies then the room to maneuver, at least in terms of fiscal policy, is likely to wax and wane with international conditions. Hence small open economies are likely to have considerably more capacity to exercise policy decisions under 'easy' global money conditions, than when global money is tight. In the case of an easy money environment, global investors are likely to be less risk averse, seeking opportunities for diversification of investment without close examination of the economic policies of recipient nations. Hence easy global money conditions afford small open economies relatively greater policy maneuverability conditions (Maxfield, 1998a: 76). However, as liquidity preference for holdings of 'safe' or 'high quality' assets increases, international investors are likely to examine policy decisions of small open economies more closely. Increased liquidity preference of investors in terms of both the perception of risk regarding the assets of small economies, as well increased risk aversion of investors in times of tight money conditions, is likely to lead to capital outflows from small open economies.

The exposure of a country to foreign loans increases the likelihood of it being subject to credit withdrawal in response to market perceptions (Furman and Stiglitz, 1998: 6). Changes in the perceptions and liquidity preference of global investors may explain

how countries are affected by contagion, and may account for how external changes, such as an increase in the interest rate of industrial countries, may prompt a sudden withdrawal of credit. Financial flows create claims and liabilities that have to be serviced (Toporowski, 2000:7), and credit withdrawal threatens the capacity to service these liabilities. The suspicion that a small open economy$_{lp}$ may be overexposed, and hence, unable to service its liabilities, is likely to lead to a capital outflow, and realise these suspicions. However, as will be seen in chapter five, while financial exposure indicates the potential for credit withdrawal, this does not necessarily imply financial vulnerability.

4.6   International financial provision and the small open economy$_{lp}$

In the previous chapter, it was seen that money and the development of the banking sector could contribute to the asymmetrical development of regions. The Post Keynesian theory on the role of banking in development between regions and countries has evolved with reference to both cumulative causation theory and dependency theory (see Chick and Dow, 1988 & Dow, 1993: 144) and has emphasised the importance of the differential in financial sophistication between centre and peripheral countries (Dow, 1995:6).

As referred to in chapter three, migration of capital to the centre in response to the opportunities offered there contributes to the advantages of the centre over the periphery. One of these advantages is likely to be the relative sophistication of the financial sector in the centre. Once exposed to the sophisticated international banking sector, small open economies are not necessarily unconstrained in terms of their credit requirements. Indeed, to the extent that reliance on the international financial system develops, the development of the domestic financial sector may be inhibited (Dow, 1995:6). As has been discussed in the previous section of the chapter, the assessment of creditworthiness of a small open economy is dependent on external factors – such as the global rate of interest – as well as internal factors. The small open economy is unlikely to have capacity to influence external

factors, and with assessment of peripheral countries made remotely, decisions may be made on the basis of insufficient information on internal factors. Assessments made on a fragile information base are likely to react to ephemeral changes and be more volatile (Dow, 1995:7, Davidson, 1999:3). Even where assessments of creditworthiness have been made on a sound informational basis, it cannot overcome the reality of fundamental uncertainty (Davidson, 1999:10), and a sudden increase in global interest rates relative to earnings can reverse positive assessments. Hence the small open economy may be seen as on the fringe of international financial provision.

If for example, an increase in US interest rates leads to a reversal of capital flows from a small open economy, the resulting downward pressure on the currency may lead international banks toward reassessing the creditworthiness and liquidity of the small open economy. In this way, small open economies may find themselves shifting along the continuum of international provision. International banks may reassess their preference for liquid assets of the centre as well as their perceptions of the liquidity of the financial assets of small open economies. Where loans need to be rolled over, credit may only be available to the small open economy at higher interest rates, if at all. Post the debt crisis of the 1980's, international banking institutions may have adopted a 'prior-saving' doctrine with regards to the smallest countries. The BIS statistics suggest, for example, that some of the poorer countries, which would intuitively be net borrowers, have assets with the banking system which outweigh their liabilities. Without these assets, such countries may be excluded from international financial provision. This issue is raised again in chapter five.

4.7 Conclusion

The characterisation of the small open economy$_{lp,}$ under conditions of uncertainty, has suggested that the assumption of full employment is misleading in terms of the consequence of openness for the dependent economy. Openness itself is seen to

exacerbate the constraining tendencies of liquidity preference on the small open economy. The existence of international moneys exacerbates the effects of liquidity preference, providing access to more assets that serve to divert wealth from employment-creating investment. Given international centre-periphery differentials, residents of small open economies are likely to view centre assets as more liquid than domestic assets.

The reliance of the small open economy on capital inflows to enable investment makes the country's level of income and employment dependent on access to the international credit. In the closed economy, preference for liquid assets puts a stop to the fall in the interest rate, before full employment is achieved. Given preference for international liquid assets, in the small open economy, pressure from the balance of payments is an additional reason why the fall in interest rate comes to a premature stop, so unemployment may become endemic.

The general trend of capital inflows to follow global liquidity cycles means that the small open economy is unable to significantly influence the timing – or the magnitude - of the capital flows. Hence the reversals in the international status of a small open economy often appear to be stimulated, or exacerbated, by external factors.

Small open economies are vulnerable to assessment of their liquidity or creditworthiness being reversed or adjusted in the light of other global events. This may lead to a process of second-guessing investors, with expectations of capital flows resulting in real consequences for policy choices. There appears to be a general notion that following orthodox policies is the best way of 'playing it safe', even where chronic unemployment exists in an economy.

The next chapter attempts to provide a means to assess the financial vulnerability of small open economies$_{lp}$.

5. Measuring the financial vulnerability of the small open economy

5.1 Introduction

Financial vulnerability is a state of constraint relating to the fear of the consequences of credit withdrawal, affecting different cohorts of borrowers in a domestic as well as in a global context. It is suggested that small open economies on the fringe of international provision are likely to be financially vulnerable. While the literature reveals many approaches and attempts to define and classify a small open economy – there is still a sense in which the concept remains intuitive. Paul Streeten (1993:197) suggests we know a small open economy when we see it. In this chapter, financial openness is explored as a means for identifying small open economies$_{lp}$.

Approaches to classifying small economies can be divided into two; the one approach emphasizes size, the other, openness. In the first case, small open economies are classified so by virtue of some aspect of their resource endowment such as: population size, GDP per capita, geographical area, etc. This view suggests implicit acceptance that an economy is small and open, because its physical resource endowment is constrained. However, the debate as to the appropriate proxy for size is not resolved – reflecting the difficulties of capturing a complex concept with a simple measure (Hawkins, 1997: 266).

The alternative approach to classifying small open economies, emphasises openness, on the grounds that this is the primary economic identifier of small economies (Prachowny, 1975 and Bhaduri et al, 1982). Openness potentially captures a sense of both the opportunity associated with openness and the associated vulnerability to global external shocks. It appears that this approach is more amenable for the purposes here, so the discussion will focus on measures of openness, rather than size.

The term 'openness' is used to refer to both the concepts of integration with the world economy and exposure to the foreign sector, each with their own implied classifications. While the definition and measurement of exposure to trade flows is reasonably settled, the issue of financial openness, or openness of the capital account, remains relatively neglected and undefined in the literature. The chapter advances a possible definition of financial exposure of the small open economy – that of financial vulnerability. A financial vulnerability index is developed, which attempts to identify small open economies on the basis of their exposure to financial flows. The index reveals the vulnerability of East Asian and other emerging market economies prior to the crisis that emerged in 1997.

In section two, the various approaches to classifying openness are examined and in section three the difficulties associated with different criteria for measurement of financial exposure are highlighted. Section four outlines the methodology of the financial vulnerability index developed here, and describes the contending indicators from which the index is constructed. Section five compares the financial vulnerability index to exposure on the current account; section six compares the index to sovereign credit ratings. Since the financial vulnerability index better captures exposure to short-term capital and liability flows than the sovereign credit ratings, it appears to be a better tool with which to assess the capacity of countries to withstand global financial shocks.

5.2 Measures of openness

The term 'openness' is used to refer to both the relative exposure of national economies to international flows (Whitman, 1969: 727) and the integration of the economy with the rest of the world. Exposure refers to the importance of the foreign flows to the domestic economy, and integration the degree to which these flows are free to cross

international borders. While openness in terms of exposure may be measured by the size of trade flows as a percentage of GDP, openness in terms of integration may be measured by average tariff levels.

Table 5.1 Classification of Measures of Openness

Definition of openness	Integration (Policy orientation)	Exposure (Significance of foreign sector)
Current account	Measure of *trade policy orientation* e.g.: Tariff levels, Incidence of tariffs, Price distortions	Measure of *significance of foreign sector* Exports and/or imports as a ratio to GDP (Trade intensity ratio)
Financial account (Old Capital account)	Measure of *financial account orientation* e.g. Interest rate parity Saving-investment correlation	Measure of financial flows e.g. Financial account flows such as Portfolio flows Foreign activity in stock market

Classifying economies as open is not only confounded by concerns as to whether the focus ought to be on integration or exposure, but also whether openness ought to refer to current account or financial account openness. The table above provides a classification of the different approaches to measuring openness. Essentially, the measures employed reflect their theoretical foundations. Given that tariffs are seen as spanners-in-the-works, and that interest rate parity is linked to the mainstream conception of the small economy, the integration definition has received more attention from mainstream economists. Although all studies into integration are by no means neoclassical, the measures of openness employed appear to be defined in terms of mainstream theory. Generally, where the liberalisation/protectionism debate is being pursued, the definition of openness will be integration and the measure of openness employed will relate to policy orientation. Current account openness then will be assessed according to trade policy orientation and for the financial account, policy orientation towards capital flows will be examined. In the

case of the financial account, openness is assessed based on the theoretical foundations of monetarist theory: Integration is seen as the degree to which the law of one price is reflected in an economy. For example, interest parity may be compared and tests for 'domestic asset preference' may be applied. In the latter, it is assumed that the share of total assets in a country, purchased by its residents, should equal the country's share in world lending, if the country is fully integrated with the rest of the world (Montiel, 1993: 7). Alternatively, evidence based on the implications of the monetary approach to the balance of payments may be sought. Saving and investment rates may be compared, based on the notion that openness should allow saving and investment rates to diverge; in addition evidence of the efficacy of sterilization may be sought (ibid.).

The exposure definition of openness appears to more closely reflect Keynesian macroeconomics, focussing on the relative size of the foreign sector to domestic production and expenditure. It perhaps should come as no surprise that measures reflecting exposure have been very skewed towards the current account. While there are some variations, it is generally accepted that trade openness is measured by the size of export and import flows to GDP, or the trade intensity ratio. Hence economies are classified on the basis of their exposure to international flows. Classification on the basis of exposure to trade flows, for example, identifies non-contentious countries like Belgium and Malta as small, but also permits countries like Canada and South Africa to be classified as small open economies. Prachowny (1975:1) justifies this approach by asserting that since the small economy is a theoretical concept, it should be defined by means of economic concepts (such as openness) rather than physical properties (such as size).

The focus on the current account reflects the conventional emphasis on the real rather than the monetary side of the economy. In this view, the financial account is essentially a residual account. However, Whitman (1969) suggests that financial openness

is not necessarily correlated with trade openness, indeed current account openness does not necessarily imply financial account openness. The discussion in chapter four has emphasised that the financial account may bring its own pressures to bear on the economy. This suggests there is justification for a separate examination of the issue of financial openness. This raises the issue of how to measure financial exposure, which will be tackled in the next section.

While the concepts of integration and exposure are closely related and tend to be complementary (removal of barriers to trade affects both integration and exposure), a country may be highly exposed to trade flows yet still maintain barriers. Conversely, in a potentially integrated economy, the foreign sector may not be particularly significant. In this study, the focus on the dependence and vulnerability that arises as a result of trade and financial flows between economies suggests that openness in terms of exposure of the economy to the rest of the world appears to be the more appropriate emphasis. Hence the focus will be on the outcome of integration i.e. exposure, rather than the process by which integration takes place.

5.3 Measuring financial exposure

Financial exposure is important to the vulnerability of small open economies, as the East Asian crisis has once again reminded us. While the 'dependent economy' has long suggested the susceptibility of small open economies to short term liquidity crises (Helleiner, 1986), measuring financial exposure has largely been neglected. It seems that exposure and vulnerability are closely linked. Exposure may be seen to quantify the potential vulnerability of the small open economy to credit withdrawal. This may be seen for example, in the degree of exposure to hard currency loans – particularly loans of short

maturity, which make small countries vulnerable to credit withdrawal and currency depreciation.

The neglect of financial or capital account openness may, in part, be attributed to difficulties in defining an easily accessible and comparable measure as exists for assessing current account openness. In order to measure capital openness, Whitman (1969: 729) suggests that a ratio be found, along the lines of the trade intensity ratio. However, there are data restrictions: there is no measure of gross capital flows into a country for use in a simple ratio comparing flows to GDP, for instance.

Balance of payments data provide two possibilities to track capital flows – the balance on the current account or the financial account. In theory, under a flexible exchange rate regime, at least, they are interchangeable - the financial account, which tracks net purchases (that is purchases by residents of foreign assets less sales of current foreign asset holdings) - should match the current account (including transfers and income). In the same way, net capital inflows into a country ought to match its current account deficit. Regardless of the exchange rate regime, however, there will always be a differential in terms of reserves – as intervention in the currency market is likely to take place regardless of regime. As a result, in practice there are always statistical differences, and sometimes they are significant. In 1997, for example, the US current account deficit of $155 billion differed by $100 billion from the $255 billion recorded as the net investment inflow (Higgins and Klitgaard, 1998). Using the current account balance as an exclusive measure of financial openness can hence be deceptive. This raises the issue of the residuals on the balance of payments (errors and omissions), which are seen as unrecorded capital flows. This may suggest, that the current account is a better measure of financial flows than the financial account. However, the perspective adopted here is that the financial account should be examined in its own right. (Errors and omissions and changes in reserves are examined in the next chapter.) Use of the financial account has

other disadvantages: published figures on financial flows are netted out (Montiel, 1993). In addition, use of the composite balance of payments figure also masks information regarding the nature of a country's financial openness, the scale and composition of the capital flows, and the potential vulnerability to disruption of these capital flows.

Because of the netting out of financial account figures, alternative measures, such as trade in currency markets or foreign purchases on the domestic stock exchange, have been suggested as possible measures of financial account openness. While these may be useful for particular studies, they do not capture the scope of financial exposure, and because of limited data availability do not provide the basis for country comparison.

The approach here is to provide a composite measure for financial exposure that reflects the small open economy's vulnerability to foreign credit withdrawal. Since small open economies may be associated with uncertainty regarding their credit status and also with incapacity to effectively reverse a capital outflow, policy decisions and investor expectations may be constrained.

In these terms, a measure of financial openness should reflect both the dependence and vulnerability associated with exposure on the financial account. Dependence may be defined in terms of a country's reliance on the rest of the world's financial resources. Vulnerability may be described as the degree to which external events may potentially harm or disrupt the economy (Cooper, 1986:3). Dependence and vulnerability are closely linked to the composition of foreign inflows - whether they represent bank loans or direct investment – and whether they are public or private. So, for example, foreign direct investment, is seen as less volatile than 'impatient' capital (portfolio flows) (Maxfield, 1998a: 79). In addition, the time profile of repayment streams of the inflows is also likely to influence vulnerability (Snowdon, 1985: 3). The composite index of financial exposure developed here will attempt to reflect the importance of foreign inflows and outflows to the domestic economy, as well as the composition of these flows. In the section that

follows, as a first step to providing a profile of country's financial exposure, 10 measures are examined. The aim is to use a subset of these to provide an index by which countries can be ranked.

5.4 Constructing the financial vulnerability index

Openness is a relative, rather than an absolute concept, and while no country is completely closed to international flows, countries can be seen as being on a continuum of openness. The notion of a continuum of openness is employed in this section to provide a sense of the relative vulnerability of countries to external influences.

One of the aims of this section is to place the South African economy in a global context. South Africa has been classified as a small open economy on the basis of its openness to trade (see for example, Mohr, 1993: 26; Nattrass, 1991: 30), but its financial openness has been neglected (although Skinner and Osborn, 1992:78 seem to infer financial openness). The South African economy may be seen to represent a 'controlled experiment' in the sense that, from the period 1985-1993, while trade in goods and services went on, South Africa was the object of successful financial sanctions. Thus while South Africa, like many other developing countries, maintained capital controls, the rest of the world chose not to engage in financial relations with the pariah nation. From the first quarter of 1994, at the time of the democratic elections, South Africa once again became globally financially acceptable (though not always attractive). While this aspect of the South African situation will be explored more fully in Chapter seven, it will be interesting to see to what extent South Africa may be considered financially open as it emerges from a decade of financial sanctions.

The countries selected for comparison represent a broad range of countries – as classified by the World Bank Country tables. The selection includes high, middle and

low-income countries, some of which are heavily indebted, some oil producers and so on. The selection of countries is far from comprehensive, so a short justification is offered. The process of examining measures of openness began as an exercise to place South Africa in context and establish the extremes against which its 'openness' or otherwise could be evaluated. For this reason, 'large closed giants' such as the United States and India were included, one from each end of the income spectrum. To represent the other end of the openness and size scale, Belgium and Namibia were initially included as benchmark countries, again each representing different ends of the income scale. Both proved to be poor subjects, however, as data for four of the ten indicators are unavailable for Belgium, and there are difficulties with Namibian data. Namibian data, particularly foreign investment data, is likely to be an estimate for much of the period under review because of the historical integration of Namibian data with that of South Africa (Hartmann, 1991: 163). Namibia gained her independence in 1990. Both Belgium and Namibia have been excluded from the comparative process. New Zealand and Mauritius are included as alternatives.

Canada and Australia were included as they were the 'original' small open economies upon which Mundell's and Swan's work was based. They are also land-rich countries, with a similar colonial history to South Africa. Kenya, Nigeria, Zambia and Zimbabwe were included as African countries, but data for five of the selected indicators was missing for Zambia, so it too was excluded. Countries with which South Africa is identified and compared from East Asia and Latin America are also included in the selection. Like South Africa, Argentina, Brazil, Malaysia, Thailand, Peru, Philippines and Venezuela are middle income countries. The exploration of the data that follows suggests that middle income countries may also be small and open. The final selection involves 21 countries, including South Africa.

To the extent that data availability is a requirement for international risk assessment, data problems imply that certain countries are excluded from evaluation, or that evaluation is based on a subset of the information available for other countries. In terms of trying to select countries for which most of the indicators are available, the sample selected here is biased against the most marginalised countries. However, this should not weaken the argument in terms of the relative placement of countries that are within the horizons of international financial provision.

The countries are compared on the basis of averages of annual data for the period of a decade 1986-1996, although in a few cases, data availability restricted this period to 1985-1995. The decision to use the most recent ten-year average possible was made as it was thought to be less arbitrary than use of a particular year. The use of the average is also useful where the aim is to examine the medium term values of long-term characteristics such as openness, and avoid the fluctuations that occur in the short term. Use of averages, does however, significantly mask shifts of the measures for individual countries. Harrison (1991) is particularly concerned with how long term averages hide country variations, and so is critical of studies using long-term averages of 15 years or more. However, she uses averages in her own measures – albeit a 'short-term' average of 6 years. Of course, the shorter the time period used, the more significant becomes the choice of time period. South Africa's ratings in some measures, for example, would vary radically were the starting time-period of a short-term average chosen to be 1980, rather than 1985, or 1995. While the masking criticism leveled at the use of averages is acknowledged, it still appears to be a more satisfactory approach than arbitrarily choosing a particular year. To compensate for masking country variations over the averaging period, the standard deviations for the data are provided. In chapter six, some of the detail of the individual years is examined.

Data on financial flows are less easily collated than trade data and there are also problems with comparability of data as different countries provide information on different data series. In an attempt to provide reasonably comparable data, figures published by international organizations such as the International Monetary Fund (IMF), the World Bank, United Nations Conference for Trade and Development (UNCTAD) and the Bank of International Settlements (BIS) have been used.

The variables below are examined on an exploratory basis, as potential measures for inclusion in an index of financial openness. The data used is shown in successive tables over the following pages, and the index of financial vulnerability is shown in Table 5.12. For each of the indicators, the data are ranked, producing a continuum of openness for the variable concerned. First, measures for the extent of exposure or relative importance of capital flows to the economy were sought. Matching balance of payments data on the capital account are not available for all countries (apart from the most composite data) and so alternatives were sought. Net resource flows (as used by Wells, 1997), and the IMF's financial account appeared to be possible proxies.

Second, measures that unpack the composite figures were then sought. Data on the composition of capital flows is most often published as regional data – but the UNCTAD World Investment report does publish data for individual countries, if only for select years, for foreign direct investment. A measure for FDI flows as a percentage of GDFI and a measure for FDI stocks as a percentage of GDP is examined below.

Third, data on bank loans appear to be increasingly important to the assessment of financial openness as the role of private capital flows continues to increase as a proportion of global capital flows (World Bank Private Capital Flows report, 1997:227). Both the private and public sectors are becoming increasingly reliant on private capital flows, and international banks are playing a major role in financial intermediation of this capital. The data from the Bank of International Settlements for each country's bank assets as a

percentage of its liabilities, as well as the short term maturity of bank loans have been included in the variables examined below. The role of banks in intermediating large private capital flows suggests that the level of development of the domestic banking sector, which presumably is involved in this intermediation, is also likely to influence the financial vulnerability of a small open economy. Unfortunately, proxy data for the level of development of the banking sector are not available for all the countries examined here, and so it is not explicitly examined here.

Finally, measures included to show potential exposure to volatility are portfolio investment as a percentage of GDFI, and short-term debt as a percentage of total debt. In addition, gross international reserves in months of imports or aggregate cover, are also examined. The World Bank publishes this data, and from time to time they are quoted in the financial press. Countries with a reserve position of less than the equivalent of three months imports are seen as vulnerable (Berg and Pattillo, 2000: 110). Finally, a count of volatile episodes of the exchange rate was thought to be a potentially useful measure for reflecting a country's historical vulnerability.

Ten indicators were explored for incorporation in the financial vulnerability index. They are listed and discussed below.

5.3.1 Net resource transfers – *ratio between imports of goods and services less exports of goods and services to GDP*. Annual average for 1986-1996.

Wells (1997: 11) refers to this as a measure of 'capital openness', and uses it to capture the dependence of small open economies on foreign resource inflows. Essentially this amounts to the current account deficit (excluding unilateral transfers and income) as a percentage of GDP (or the trade deficit to GDP). This is taken to represent the import surplus in goods and non-factor services or the sum of net factor payments (interest, profit and dividends) plus net remittances (public and private) plus net capital flows of all kinds as a percentage of GDP (Wells, 1997:11).

The data for capital openness a lá Wells are shown in Table 5.2. Positive values suggest that a country has access to foreign resource flows relative to GDP, with imports greater than exports.

Table 5.2 Net resource transfers

Country	Net resource flow ((Imports-Exports)/GDP) %	Standard Deviation	Ranking
Argentina	-0.93%	0.09	13
Australia	0.77%	0.07	8
Brazil	-1.51%	0.03	15
Canada	-0.57%	0.02	12
India	0.36%	0.02	10
Indonesia	-0.97%	0.03	14
Kenya	2.37%	0.02	4
Malaysia	-2.89%	0.06	18
Mauritius	3.27%	0.03	3
Mexico	0.17%	0.02	11
New Zealand	-1.86%	0.02	16
Nigeria	-11.37%	0.03	21
Peru	1.87%	0.01	5
Philippines	3.76%	0.02	1
South Africa	-4.57%	0.01	19
Switzerland	-2.28%	0.04	17
Thailand	3.57%	0.08	2
United Kingdom	1.72%	0.06	6
United States	1.49%	0.04	7
Venezuela	-5.24%	0.03	20
Zimbabwe	0.74%	0.04	9

Source: IMF, International Financial Statistics. Average for 1986-1996

The data suggest that net resource flows enable greater consumption and investment most significantly in the Philippines and Thailand. By contrast, net resource flows are most negative for Nigeria and Venezuela. Negative values suggest an export surplus – and possibly a surplus on the current account, indicating a net financial transfer to the rest of the world - which is quite possible in the case of these two OPEC members. More generally though, a surplus on the trade account does not necessarily indicate financial independence from the rest of the world. Indeed, countries may have to reduce imports to generate an export surplus in order to service debt repayments, which may account for the South African situation, at least for the earlier half of the period under review. The need to

service debts may be taken as a sign of dependency on international resources. So the interpretation of the data, in terms of equivalence of outflows and inflows, is not immediately obvious. In addition, the data for net resource transfers exclude unilateral transfers (which include foreign grants and aid) and income (in particular, investment income such as debt servicing) – items that may be particularly significant for small open countries. This suggests that other variables are needed to gauge a country's financial openness.

5.3.2. Financial account as a percentage of GDP. Annual average for 1986-1996.

Table 5.3 Financial account as a percentage of GDP

Country	Financial account as a % of GDP	Standard Deviation	Ranking
Argentina	-0.09%	0.04	16
Australia	4.61%	0.01	4
Brazil	-0.05%	0.03	15
Canada	0.55%	0.01	10
India	2.26%	0.01	8
Indonesia	3.83%	0.02	5
Kenya	2.60%	0.03	7
Malaysia	5.98%	0.07	2
Mauritius	1.97%	0.02	9
Mexico	na	na	na
New Zealand	0.31%	0.03	11
Nigeria	na	na	na
Peru	-1.71%	0.05	17
Philippines	5.26%	0.04	3
South Africa	-0.02%	0.03	14
Switzerland	-5.73%	0.02	19
Thailand	8.06%	0.04	1
United Kingdom	0.00%	0.00	13
United States	0.00%	0.00	12
Venezuela	-2.27%	0.06	18
Zimbabwe	2.63%	0.03	6

Source: IMF, International Financial Statistics and World Bank Development Indicators.

Taken from the IMF's International Financial Statistics, what used to be known as the capital account, the financial account, is described as the net sum of the balance of direct investment, net portfolio investment and other investment transactions. This is shown in Table 5.3 as a percentage of GDP. The financial account, which represents the

value of capital transactions in the balance of payments, appears at first glance to be the equivalent of the measure of trade openness. However, the netting out of the flows understates the size of the flows. Authors have attempted to overcome this netting out by summing inflows and outflows (see Whitman, 1969 and Montiel, 1993).

In spite of the difficulties with the financial account, the measure remains one of the few indicators available for almost all countries. Since the IFS data provides the financial account data in US Dollars, but the GDP data series is in national currency units, the GDP market rate data series in US Dollars provided by the World Bank was used as a denominator. (This is a methodology used by Montiel (1993)).

The ranking employed here does not see capital inflows and outflows as equivalent. If the absolute values were taken, then a country like Switzerland would move up the ranking towards openness. However, the financial flows recorded for Switzerland are associated with its banking industry, which continues to play a unique role worldwide. Given the reputation of anonymity associated with Swiss bank accounts, it is difficult to see Switzerland in the same light as the small open economies addressed here.

The financial account, as a percentage of GDP is most positive for Thailand, Malaysia and the Philippines and most negative for Switzerland. Again, it is difficult to assess whether outflows and inflows are equivalent in determining the financial openness of a country. A number of countries have an average value for the period of zero, or very close to zero, such as South Africa which ranks 14 among the 19 countries for which there is data for this indicator. An average value of close to zero suggests that the financial account of these countries balances, on average, over time. For some of these countries, however, the standard deviations are considerably greater than zero. This includes Argentina, Brazil, South Africa and New Zealand. This distinguishes them from countries like the United Kingdom and United States of America, where both the standard deviation and the average are very close to zero over the period. Since the financial account data are

by definition composite and netted out, they require further unpacking in terms of direct investment and portfolio investment flows, which the following few measures attempt to provide.

5.3.3 Net inflows of foreign domestic investment as a percentage of gross domestic fixed investment. Annual average for 1985-1995.

Foreign direct investment (FDI) refers to investment which involves acquiring a management interest (10 per cent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It includes equity capital flows, reinvestment earnings and other long and short-term flows (World Bank, 1999:246). Foreign direct investment is generally seen as a stabilising factor in a small open economy's exposure to volatility in capital flows – as FDI is seen as *committed* investment, undertaken by patient investors (Maxfield, 1998a: 74). (The World Bank definition, for example, describes FDI as acquiring a *lasting* management interest.)

Table 5.4 Net inflows of foreign domestic investment as a percentage of GDFI

Country	Net inflows of FDI as a % of GDFI	Standard Deviation 1985-1995	Ranking
Argentina	13.56	7.98	3
Australia	5.00	5.67	7
Brazil	1.85	1.23	11
Canada	0.55	2.55	12
India	na	na	na
Indonesia	4.22	1.55	9
Kenya	na	na	na
Malaysia	18.13	9.16	2
Mauritius	0.05	2.10	13
Mexico	10.58	4.68	5
New Zealand	13.05	3.91	4
Nigeria	25.07	12.40	1
Peru	na	na	na
Philippines	6.88	2.96	6
South Africa	-1.22	1.57	14
Switzerland	-11.00	3.59	17
Thailand	3.90	2.57	10
United Kingdom	-6.25	5.04	16
United States	-2.05	1.28	15
Venezuela	4.58	7.32	8
Zimbabwe	na	na	na

Source: UNCTAD: World Investment Report 1997.

However, categorisation of investment is not always straightforward, as data give no indicator of investor motivation. In addition, while FDI data capture cross-border equity flows – they omit non-equity cross-border transactions such as intra-firm flows of goods and services (World Bank, 1999:246).

The data shown in Table 5.4 represent net foreign direct investment (FDI) (inflows less outflows) as a percentage of gross domestic foreign investment (GDFI). The standard deviations shown in Table 5.4 suggest that there is a significant amount of variability of FDI inflows over the period studied. FDI flows represent 25 per cent of GDFI in Nigeria. Malaysia, Argentina and New Zealand also have a high proportion of net FDI flows to GDFI between 1985-1995. The flows to and from South Africa were relatively small and generally negative during this period, largely due to financial sanctions imposed on the country until early 1994. Switzerland experienced the largest outflow of FDI of the countries included in the sample.

5.3.4 Net inward foreign direct investment stock as a percentage of GDP. Average for the years, 1980, 1985, 1990 and 1995.

The data in Table 5.5 are examined as an alternative to the FDI flow data above, reflecting the level of foreign direct investment stock as a percentage of GDP. The stock figures are net, showing both increases and decreases in FDI stocks and indicate a substantial build up of foreign direct investment stock in countries such as Malaysia, Nigeria, New Zealand, and Mexico.

Not surprisingly, there is a strong positive relationship between those countries receiving positive FDI flows (Table 5.4) and those building up FDI stocks over the past decade. Unfortunately data for five of the countries are missing.

Table 5.5 Net inward foreign direct investment stock as a percentage of GDP

Country	Net inward FDI stock as a % of GDP	Standard Deviation	Ranking
Argentina	7.08	1.08	6
Australia	13.33	5.08	2
Brazil	10.38	4.50	5
Canada	7.03	3.56	7
India	na	na	na
Indonesia	na	na	na
Kenya	5.85	0.87	8
Malaysia	28.78	7.40	1
Mauritius	na	na	na
Mexico	12.88	8.58	3
New Zealand	12.13	13.83	4
Nigeria	-3.81	na	15
Peru	5.80	na	9
Philippines	4.70	1.98	11
South Africa	5.30	6.07	10
Switzerland	-16.83	7.63	16
Thailand	na	na	na
United Kingdom	-2.83	3.81	14
United States	-2.35	1.86	13
Venezuela	3.38	1.79	12
Zimbabwe	na	na	na

Source: UNCTAD: World Investment Report 1997. Average for 1980, 1985, 1990 and 1995.

5.3.5 External positions of individual countries vis-à-vis reporting banks: Deposits as a percentage of loans. Average end of year position for period 1987-1997.

The Bank of International Settlements (BIS) data provide a measure of the proportion of bank liabilities to bank assets for each individual country. In order to make the data accord with the country perspective, the data in Table 5.6 are shown from the perspective of the individual country rather than the banks, i.e. each country's assets (deposits) are shown as a proportion of its liabilities (loans). (A bank loan is an asset from the perspective of a bank, but a liability from the country's perspective.) Thailand, Indonesia and New Zealand have the lowest value of bank assets as a percentage of their liabilities; Switzerland and Kenya are at the opposite extreme.

The interpretation of the data here is not clear-cut. Kenya and Switzerland both have deposits that outweigh their loans, yet they are at opposite ends of the national income

scale. Hence two explanations appear to be required. Wealthy countries like Switzerland and the United Kingdom have assets with banks that outweigh their liabilities reflecting their wealth, although the averaging process over the decade masks the years in which liabilities outweigh assets. For a wealthy country, seeking greater liquidity is a matter of preference. Access to loan provision or credit extension is a given for these wealthy countries, almost regardless of the position of assets to liabilities. For countries that may be considered as risky, however, such as Kenya, the same availability of credit may not apply. Lower income countries may be *required* to have assets (deposits) outweighing their liabilities (loans), or suffer the consequences of being excluded from international bank credit. This may reflect awareness of the potential of being denied access to global resources.

Table 5.6 Country deposits as a percentage of country loans

Country	Country deposits with BIS banks as a ratio of loans	Ranking
Argentina	0.58	9
Australia	0.36	5
Brazil	0.47	7
Canada	0.58	8
India	0.71	11
Indonesia	0.28	2
Kenya	2.08	20
Malaysia	0.76	13
Mauritius	1.61	19
Mexico	0.43	6
New Zealand	0.28	3
Nigeria	0.81	14
Peru	0.95	16
Philippines	0.61	10
South Africa	0.36	4
Switzerland	3.33	21
Thailand	0.16	1
United Kingdom	1.08	17
United States	0.85	15
Venezuela	1.18	18
Zimbabwe	0.72	12

Source: Bank of International Settlements. Average 1987-1997.

Countries at the other extreme of the assets to liabilities scale, such as Thailand, Indonesia and New Zealand have a situation where their assets are a small proportion of

their liabilities, so their liabilities outweigh their assets. This is typical of middle income countries, which are generally able to obtain bank loans (i.e. increase their liabilities) relatively easily. The relatively easy extension of credit to these countries, underlines their potentially high level of dependence on these resources, and indeed their vulnerability, should these credit lines be compromised.

While this indicator may be interesting analytically, it is difficult to evaluate it in an index where a maximum and minimum value needs to be identified. Countries with high ratios of assets to liabilities may or may not be more vulnerable than those whose liabilities are greater than their assets. It was decided that Thailand, with the smallest ratio of assets could be seen as the most vulnerable and Switzerland whose assets outweigh its liabilities threefold could be seen as least vulnerable.

5.3.6 International bank claims on individual countries: Short term claims as a per cent of total bank claims. Average for December 1997 and June 1998.

Short-term claims here refer to claims of one year and less. The period of comparison for the data shown in Table 5.7 is admittedly very short – the BIS has only recently introduced this as a time series – and so the data reflect the average position of December 1997 and June 1998 only. Countries for which short-term claims make up 50 per cent and more of total bank loans include Zimbabwe, Thailand, Peru, Kenya, South Africa, New Zealand and Brazil. Short-term claims heighten the exposure of countries to abrupt changes of sentiment, as bank loans may not be forthcoming when next required to be rolled over. For this reason, this indicator may give some idea of the risk of contagion.

The positioning of Zimbabwe, Switzerland, UK, Peru and Thailand on the exposed end of the scale shows that countries which are 'inadvertently' vulnerable (constrained) may be as exposed as countries (Switzerland and UK) whose exploitation of their strength in banking and financial services leaves them 'deliberately' exposed (and unconstrained).

Table 5.7 Short-term claims of each country as a per cent of its total bank claims

Country	Short term claims as a % of total claims	Ranking
Argentina	57.55	12
Australia	53.76	14
Brazil	63.48	9
Canada	55.67	13
India	38.03	21
Indonesia	57.79	11
Kenya	68.76	6
Malaysia	50.69	15
Mauritius	48.04	17
Mexico	44.26	18
New Zealand	64.43	8
Nigeria	41.67	19
Peru	72.51	4
Philippines	58.74	10
South Africa	65.13	7
Switzerland	79.87	2
Thailand	70.46	5
United Kingdom	78.55	3
United States	49.36	16
Venezuela	38.66	20
Zimbabwe	81.08	1

Source: Bank of International Settlements. Average for Dec 1997 and June 1998.

5.3.7 Net Portfolio investment flows as a percentage of Gross domestic fixed investment Average for 1986-1996.

The high value of portfolio investment flows to gross domestic fixed investment is an additional potential measure of the short-term exposure of a country. The general assumption is that portfolio investors have shorter time horizons and are more 'impatient' than investors in fixed investment. However, Maxfield (1998a: 71) suggests that the patience of investors may depend on whether 'push' factors external to the economy or internal 'pull' factors are the motivation for investment. Where investment is motivated by push factors, all categories of investment are likely to be relatively more short-term.

The fungibility of capital - such as for example, where the investor in a factory hedges his long-term exposure through some compensatory financial transaction is also a confounding factor to investor categorization. The inability of statistics to give any indication of the motivation of investors suggests that the purported links between certain

categories of investment and its volatility may be exaggerated (Maxfield, 1998a: 80). However, a ratio such as this can provide some sense of the degree to which flows may be potentially sensitive to changes in sentiment.

Portfolio flows made up significant proportions of the GDFI in Venezuela, Canada and Argentina over the period under review. Some countries, like Switzerland and the United Kingdom, experienced negative average portfolio investment over the decade in question. The standard deviation of these annual figures is shown in Table 5.8, the large standard deviations giving the reader a sense of the variability of this proportion over the decade for which the data are shown.

Table 5.8 Net Portfolio investment flows as a per cent of GDFI

Country	Portfolio investment as a % of GDFI	Standard Deviation	Ranking
Argentina	10.35%	19.18%	3
Australia	5.25%	6.01%	8
Brazil	7.94%	13.80%	6
Canada	14.67%	5.83%	2
India	1.67%	2.42%	13
Indonesia	1.04%	2.71%	15
Kenya	0.03%	0.09%	16
Malaysia	-1.89%	2.76%	19
Mauritius	1.92%	5.51%	12
Mexico	7.96%	18.21%	5
New Zealand	8.39%	10.43%	4
Nigeria	4.52%	11.25%	9
Peru	na	na	na
Philippines	1.30%	2.23%	14
South Africa	2.65%	6.03%	11
Switzerland	-11.92%	12.40%	20
Thailand	3.29%	3.49%	10
United Kingdom	-0.98%	35.82%	18
United States	5.41%	4.76%	7
Venezuela	31.21%	81.58%	1
Zimbabwe	-0.44%	2.49%	17

Source: World Bank Development Indicators. Average 1986-1996

The United States shows a relatively high proportion of portfolio flows as a percentage of GDFI; however, it cannot be considered 'vulnerable' to credit withdrawal in the same way as some of the other countries listed. Its relative immunity to credit

withdrawal is a result of the dominance of the US Dollar in international capital transactions. Should there be a capital outflow from the US that threatened the position of the US Dollar, it would be in the interests of the entire international system to intervene. A small open country cannot depend on an international 'bail-out' should the need arise.

5.3.8 Short term debt as a percentage of total external debt. Annual average for 1986-1996.

Short-term debt refers to debt with an original maturity of one year or less as well as interest in arrears on long term debt. Both public and private non-guaranteed short-term debt is included. The data are estimated by the World Bank utilising loan-by-loan reports submitted on public and publicly guaranteed debt and from creditors using the reporting systems of the Bank for International Settlements. In addition, information on loans and credits from multilateral banks and estimates from World Bank staff may be used to supplement these figures (World Bank, 1999: 246).

The proportion of short-term debt to total debt for countries readily published by the World Bank is shown in Table 5.9.1. In Thailand, South Africa and Peru, short-term debt makes up at least 20 per cent of total external debt. The data may be a little skewed for South Africa; it has only really begun to incur new debt since 1994. However, the high proportion of short-term debt incurred over this period can be considered significant. However, prior to the financial sanctions imposed in 1985, the short debt was of a similar order. Since the data for short-term debt are available for a longer period than the BIS data on the maturity of loans (Table 5.7), this seems to be a more comprehensive indicator of short-term exposure to credit withdrawal. However, there are missing values for six of the selected countries.

The World Bank does not publish short-term debt data for OECD countries, which explains the missing data. The absence of generally available figures for short-term debt

may reflect the view that these countries are financially robust. However, it is a frustration for the construction of the index. Based on the methodology described in the IMF's handbook on External Debt (1988), it seems that BIS data are used to estimate short-term debt figures when they are missing. It thus seemed reasonable to estimate the short-term debt of the missing data from BIS data. The results are shown in Table 5.9.2.

Table 5.9 Short term debt as a percentage of total external debt

1. With World Bank data			2. With estimated data		
Country	Short-term debt (% of total external debt)	Ranking	Country	Short-term debt (% of total external debt)	Ranking
Argentina	13.19	13	Argentina	13.19	13
Australia	n.a.	n.a.	Australia*	9.00	19
Brazil	16.88	7	Brazil	16.88	7
Canada	n.a.	n.a.	Canada*	10.00	16
India	7.94	21	India	7.94	21
Indonesia	17.41	6	Indonesia	17.41	6
Kenya	10.05	15	Kenya	10.05	15
Malaysia	16.79	8	Malaysia	16.79	8
Mauritius	10.33	14	Mauritius	10.33	14
Mexico	16.54	9	Mexico	16.54	9
New Zealand	n.a.	n.a.	New Zealand*	16.00	10
Nigeria	9.59	17	Nigeria	9.59	17
Peru	23.76	5	Peru	23.76	5
Philippines	15.06	11	Philippines	15.06	11
South Africa	31.43	3	South Africa	31.43	3
Switzerland	n.a.	n.a.	Switzerland*	32.00	2
Thailand	32.08	1	Thailand	32.08	1
United Kingdom	n.a.	n.a.	United Kingdom*	31.00	4
United States	n.a.	n.a.	United States*	8.00	20
Venezuela	9.52	18	Venezuela	9.52	18
Zimbabwe	13.87	12	Zimbabwe	13.87	12

Source: World Bank Development Indicators.

* Estimated value from BIS statistics on short term maturities

The data suggest that United Kingdom and Switzerland have high levels of short-term debt as a proportion of total debt. While this indicator suggests these countries are exposed, given their positions in the global economy, the market does not currently perceive them as vulnerable.

5.3.9 Aggregate import cover: *Gross international reserves expressed as ratio of the monthly average value of imports of goods and services.* Annual average for 1986-1996.

In table 5.10, the aggregate import cover for the countries in the selection is compared. Aggregate import cover may be seen to represent the capacity countries have to withstand a change in investor sentiment. Three months aggregate import cover is often reported as the benchmark reserve level in the financial press. Vulnerable countries with very low levels of reserves – in the region of one month's imports or less - may be seen as very vulnerable to exchange rate volatility, should sentiment turn against them and capital flow out. However, those countries that are perceived to be financially robust, may see large reserves as unnecessary. This may account for the low level of reserves in Canada and the UK, for example. This issue is raised again when discussing the data in the next table.

Table 5.10 Aggregate import cover

Country	Gross international reserves in months of imports	Standard Deviation	Ranking
Argentina	5.32	1.30	18
Australia	2.83	0.63	10
Brazil	5.19	2.77	17
Canada	1.19	0.33	1
India	4.31	1.34	15
Indonesia	3.27	0.28	12
Kenya	1.53	0.77	3
Malaysia	4.23	0.92	14
Mauritius	4.05	0.87	13
Mexico	2.40	1.12	6
New Zealand	2.88	0.55	11
Nigeria	2.69	1.36	9
Peru	5.91	2.75	19
Philippines	2.66	0.77	8
South Africa	1.32	0.30	2
Switzerland	7.46	1.28	20
Thailand	4.60	0.66	16
United Kingdom	1.53	0.35	4
United States	2.51	0.50	7
Venezuela	8.84	2.01	21
Zimbabwe	2.20	0.57	5

Source: World Bank Development Indicators. Average 1986-1996.

Countries with high levels of reserves (over three months cover) may actively manage this high level of holdings as they have had their fingers burnt – and because they perceive themselves (and are perceived) as vulnerable, they have built up a high level of reserves. A high level of reserves in this case may be seen as a 'precautionary' reserve position. It is possible this is the case for Argentina, Brazil, and Peru, each of which have over five months cover on average over this period, as the data for the next series, episodes of exchange rate volatility, suggest.

5.3.10 Episodes of exchange rate volatility *Number of volatile episodes between 1980-1998.*

The number of volatile episodes was calculated by comparing successive quarters using the average quarterly market exchange rate, as published by the IMF. A quarter was considered volatile, if the currency value against the dollar changed by 10 per cent or more from one quarter to the next. In table 5.11, countries that experienced the highest number of volatile periods are Peru, Argentina, Brazil, Nigeria and Mexico. Kenya, South Africa, and Zimbabwe experienced roughly one volatile episode every two years during this 10-year time span.

When read together with the aggregate import cover data above, the notion that vulnerable countries develop a precautionary reserve position in anticipation of exchange rate volatility appears to be confirmed. Peru, Argentina and Brazil, fall into this category. However, in spite of a high number of volatile periods, some countries failed to build up reserves. This may be because of other priorities such as repaying debt – as in the case of South Africa from 1985-1993.

Canada's low reserve position, seen in Table 5.10 appears justified by Table 5.11, which shows that Canada experienced no volatile exchange rate episodes during the

period under review. Under these circumstances, maintaining a high level of reserves can be seen as unnecessary.

Table 5.11 Episodes of exchange rate volatility

Country	No of volatile exchange rate episodes	Ranking
Argentina	18	2
Australia	0	17
Brazil	13	3
Canada	0	17
India	2	11
Indonesia	1	13
Kenya	6	7
Malaysia	0	17
Mauritius	2	11
Mexico	11	5
New Zealand	1	13
Nigeria	12	4
Peru	19	1
Philippines	1	13
South Africa	4	8
Switzerland	1	13
Thailand	0	17
United Kingdom	3	10
United States	0	17
Venezuela	8	6
Zimbabwe	4	8

Source: IMF, International Financial Statistics. Average 1986-1996

5.5 Financial vulnerability index

A process of standardisation has been used to create a composite index of the different indicators. This is normal in exercises of this type (Wells, 1997:39). The approach here produces a value for each observation between 0 and 1. This involves identifying the minimum and maximum values for each variable. This establishes the range for the variable. In this case, each country observation was ranked within this range by subtracting the minimum value from the country value and expressing the difference relative to the range. This can be expressed as:

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$$Rank\ of\ Country\ _x = \frac{Value\ for\ \ Country\ _x - Minimum}{Range}$$

Hence a value of zero was assigned to the most closed country, and a value of 1 was assigned to the most open. The process of standardisation puts all the components of the financial openness index (financial account, portfolio flows as a percentage of GDFI, etc.) in the same units. This means that the extreme observations for a country on any particular variable do not have a disproportionate effect on the index. In the rankings of net resource flows (Table 5.2) for example, Philippines, with an average value of 3.76% was assigned the value 0 and Nigeria, with a value of –11.37% was assigned the value 1. All the other countries were assigned a value between these two limits.

The discussion above suggests that, while far from exhaustive, some of the possible measures for financial openness appear to be more useful than others. Ten indictors in a ranking index may also be considered unwieldy. Wells (1997: 38-39) suggests that variables included in an index ought to follow the criteria of plausibility, simplicity, non-overlapping and ease of comprehension. In addition, certain variables proved impracticable to the process of standardisation. The standardization process employed here requires being able to identify which country is most exposed. There were a number of variables that defied a consistent interpretation of a large, as compared to a small value, or alternately a negative, compared to positive value. Variables excluded for this reason are: Net resource transfers, External positions of individual countries vis-à-vis international banks: deposits as a percentage of loans and Gross reserves in terms of months of import cover. The apparent overlap between Short-term bank claims and short term debt resulted in the latter being selected. Although the time series for short-term bank claims is likely to be more accurate, it has existed for a shorter period. Portfolio investment flows as a percentage of GDFI was selected over both net inward foreign direct investment flows as a percentage of GDFI and net inward FDI stock as a percentage

of GDP, since portfolio flows are so often linked to volatility of credit flows (see for example, Grabel, 1998).

Finally, an attempt was made to balance the selection of variables that proxy the *level* of exposure to international financial markets with those that appear to be better proxies of the *composition* of that exposure. The following variables have thus been included in the financial vulnerability index:

- Financial account as a percentage of GDP

- Portfolio investment as a percentage of GDFI

- Short term debt as a percentage of total external debt, and

- Exchange rate volatility

Equal weightings were assigned to each value of the indicators in the index, and ranking and index scores for each indicator, and in total are shown in Table 5.12, and Figure 5.1 below.

The composite outcome of the four selected indicators places Thailand, Peru, South Africa, Argentina, United Kingdom, and Brazil at the exposed end of the continuum of financial vulnerability. At a rank of three, South Africa is considerably more vulnerable than the 'original' small open economies of Canada and Australia, at 16th and 14th positions respectively. This suggests that, in spite of a period where South Africa was relatively isolated from flows, it still appears to be financially vulnerable. This will be explored further in the next chapter.

The position of the UK along this continuum is primarily caused by the short-term maturity of its borrowing, as estimated from the BIS statistics. In spite of the level of exposure suggested by the data, its current robust global status is currently likely to protect it from perceptions of vulnerability. However, during the period under review, the UK experienced a run on its currency when it was forced to abort its EMU peg in 1992.

At the closed end are United States, India[1], and Switzerland. The placement of the African countries, Mauritius, Nigeria and Kenya at the closed end of the continuum suggests that countries may be at the invulnerable end of the scale because they are closed to financial flows, rather than because they are financially strong.
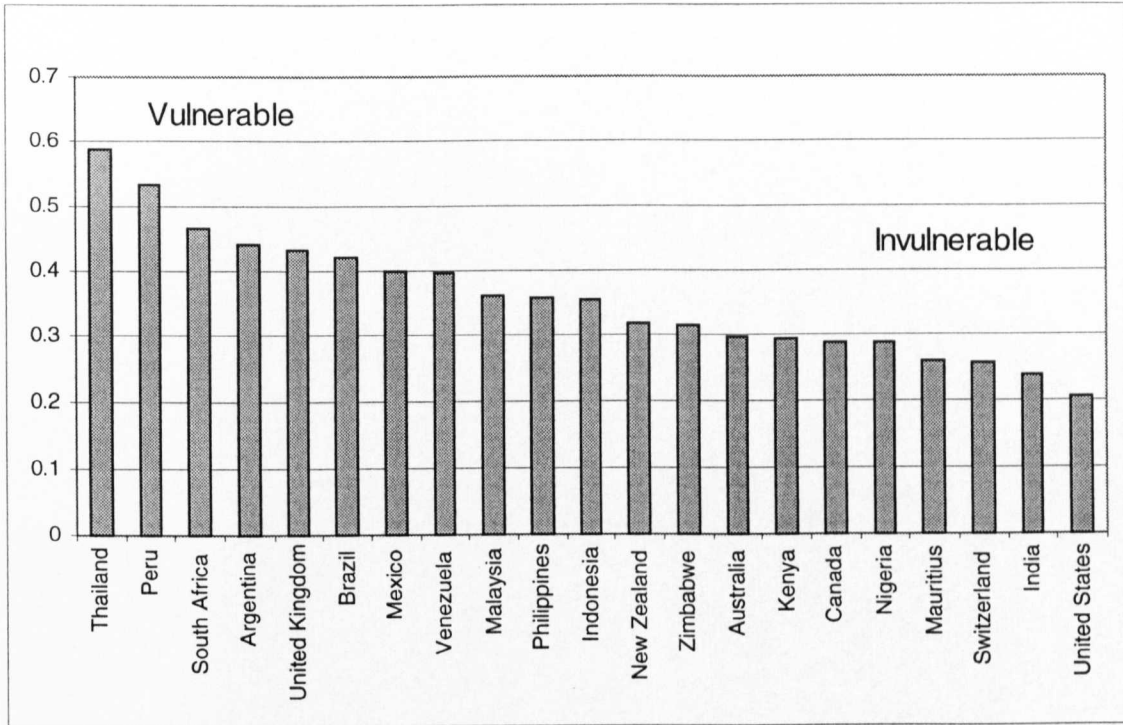
Table 5.12 Financial vulnerability index

Country	Financial account as a % of GDP	Portfolio investment as a % of GDFI	Short-term debt (% of total external debt)	No of volatile exchange rate episodes	Financial openness score	Financial openness Rank
Thailand	1.000	0.353	1.000	0.000	0.588	1
Peru	0.291	na	0.655	0.655	0.534	2
South Africa	0.414	0.338	0.973	0.138	0.466	3
Argentina	0.409	0.516	0.218	0.621	0.441	4
United Kingdom	0.415	0.254	0.955	0.103	0.432	5
Brazil	0.412	0.460	0.370	0.448	0.423	6
Mexico	na	0.461	0.356	0.379	0.399	7
Venezuela	0.251	1.000	0.066	0.276	0.398	8
Malaysia	0.849	0.233	0.367	0.000	0.362	9
Philippines	0.797	0.306	0.295	0.034	0.358	10
Indonesia	0.693	0.300	0.393	0.034	0.355	11
New Zealand	0.438	0.471	0.334	0.034	0.319	12
Zimbabwe	0.606	0.266	0.246	0.138	0.314	13
Australia	0.749	0.398	0.044	0.000	0.298	14
Kenya	0.604	0.277	0.088	0.207	0.294	15
Canada	0.455	0.616	0.086	0.000	0.289	16
Nigeria	na	0.381	0.069	0.414	0.288	17
Mauritius	0.558	0.321	0.099	0.069	0.262	18
Switzerland	0.000	0.000	0.997	0.034	0.258	19
India	0.579	0.315	0.000	0.069	0.241	20
United States	0.415	0.402	0.003	0.000	0.205	21

The position of Thailand, Peru, South Africa, Argentina, Brazil, Mexico, Venezuela, Malaysia, Philippines and Indonesia on the vulnerable end of the index, suggests the vulnerability of middle income or emerging market countries. While the variables and the countries employed in the index are far from comprehensive, the index gives some indication of the relative financial vulnerability of the countries concerned. It appears that, according to this measure of financial openness, emerging economies can be classified as financially vulnerable and hence small and open. The following chapter will

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[1] Although India appears to be closed on the basis of trade and financial flows, Dutt (1995) asserts that India is open – but does not explain on what grounds.

focus in more detail on the financial vulnerability of three of these countries: Brazil, Thailand and South Africa. The next section compares the results of the financial vulnerability index with the more conventional measure of trade openness.

Figure 5.1 Financial vulnerability index

5.6 Financial vulnerability index and trade intensity measures compared

Earlier, it was claimed that measures of trade and financial openness would identify different economies as small and open and that, given the focus of the study on financial flows, a separate measure for financial exposure was justified. The results of the financial vulnerability index are now compared with the measure of trade openness. Trade openness (also known as commercial openness (Montiel, 1993)) reflects the degree of exposure of small open economies to international shocks via the mechanism of trade (Wells, 1997: 32). Trade openness is generally measured by the size of export and import

flows to GDP, or the trade intensity ratio. The variant of the trade intensity ratio used here is discussed below.

Table 5.13 Exposure to trade flows

Country	Trade openness	Standard Deviation	Ranking
Malaysia	79.9%	13.4%	1
Mauritius	64.5%	2.7%	2
Thailand	38.9%	5.0%	3
Philippines	35.3%	8.4%	4
Switzerland	34.9%	1.6%	5
Kenya	30.5%	5.1%	6
Canada	30.0%	5.5%	7
Nigeria	29.6%	7.8%	8
Zimbabwe	28.2%	6.2%	9
New Zealand	28.2%	1.7%	10
Venezuela	26.6%	2.4%	11
United Kingdom	26.3%	1.9%	12
Indonesia	25.9%	1.8%	13
South Africa	24.1%	2.2%	14
Mexico	21.5%	5.7%	15
Australia	18.5%	1.4%	16
Peru	12.9%	1.3%	17
United States	10.8%	1.0%	18
Brazil	8.5%	0.8%	19
Argentina	8.2%	1.1%	20
India	7.9%	3.5%	21

Source: IMF International Financial Statistics

Trade openness can be measured on the basis of commodity trade only (merchandise trade ratio) or by trade in commodities and services (invisibles)[2]. Services include payments and receipts for insurance, tourism, transportation, communication, financial and business services. Given that the items included in services on the current account are potentially significant to small open economies and that service trade accounts for over one fifth of world trade (Ostry, 1987: 10), both goods and services will be included in the trade intensity ratio employed here. In addition, the suggestion of Mohr and Rogers (1991: 53) that the ratio of exports and imports of goods and services to GDP should be *averaged* to obtain a measure that avoids double counting will be adopted here.

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[2] Frenkel (1986:200) maintains that trade openness should be measured by the share of tradeable commodities – and hence potential trade. This approach has not been adopted in the literature, however.

(This appears to be generally in use – see for example Wells (1997) and Terra (1998), who uses only the ratio between imports and GDP.) In summary, the measure for trade openness used here is the ratio between the average of exports of goods and services plus imports of goods and services to GDP.

While it is tempting to see this as a measure of current account openness, the current account on the balance of payments (as defined by the World Bank and IMF) also includes separate items for unilateral transfers (gifts from one country to another, including foreign aid) and income (investment income and income from workers earning income in another economy), both of which are excluded from the trade ratio calculations. Investment income includes dividend and interest payments and receipts and so embraces debt servicing on capital loans. These exclusions suggest that it is inaccurate to see the ratio as a measure of current account openness; it measures openness to trade in goods and services.

The countries included in the selection are ranked from open to closed according to their current account openness and plotted in Figure 5.2. The data upon which this ranking is based, the average trade intensity ratio for the period 1986-96, and the standard deviation, is shown in Table 5.13. The graph reveals that India, Argentina, Brazil and United States are at the closed end of the continuum, while Malaysia, Mauritius and Thailand are the most open of the countries selected. South Africa, with a rank of 14, lies between Australia and Canada.

Prachowny, (1985: 235) suggests that, as a rule of thumb, an economy may be regarded as open if the average merchandise trade ratio is 20 per cent and above. Extending Prachowny's openness rule of thumb to the average ratio for trade in goods and services, and showing this across the continuum, reveals that the majority of the countries are on the small open end of the continuum. Hence the majority of the countries in the

selection are price takers, rather than makers, and have some degree of vulnerability to the foreign sector, based on the measure of trade openness.

Figure 5.2 Trade openness
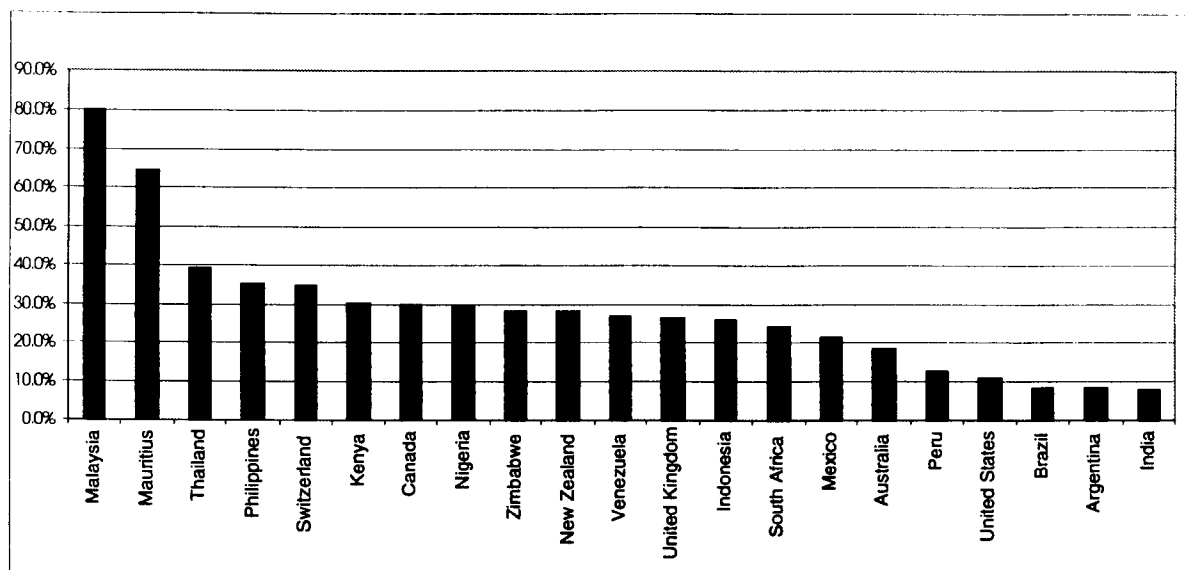
A comparison of the country rankings according to the financial vulnerability and trade openness, shows that, while some countries shuffle from one ranking to another, such as the US from 18th (trade openness) to 21st (financial vulnerability) positions and Australia from 16th to 13th position, other countries swing dramatically along the continuum. Brazil, Peru and Mauritius, for example, move to opposite extremes. South Africa moves from a position of 14th (trade openness) to 3rd (financial openness), which suggests that it is relatively more exposed to financial flows than trade flows, when compared with this selection of countries. The comparison between these two indices supports the earlier assertion that trade openness may not be a good proxy for the country's financial vulnerability.

5.7 Financial vulnerability index and Sovereign credit ratings compared

The collection of emerging economies at the vulnerable end of the financial vulnerability index suggests that the index may have some relevance for understanding the

Asian crisis, which began in 1997. For this reason, it seems that a comparison between the financial vulnerability index and the sovereign credit ratings of the time might be an informative process.

Sovereign credit ratings influence both the volume and interest rate spreads of syndicated loans to developing countries (Ul Haque et al, 1997:10). Changes in these ratings impact on the market (Cantor and Packer, 1996), even if the market anticipates these announcements. In addition, institutional investors may be constrained to invest only in instruments of countries whose sovereign ratings exceed some minimum (ibid.). Hence sovereign credit ratings appear to affect not only the perspective of global investors, but also the terms at which credit may be made available to countries.

Table 5.14 Rating symbols for Sovereign ratings

	Moody's rating categories	S&P rating categories	Assigned numeric value
Investment grade ratings	Aaa	AAA	1
Exceptional financial security	Aa1	AA+	2
	Aa2	AA	3
	Aa3	AA-	4
Good financial security	A1	A+	5
	A2	A	6
	A3	A-	7
Adequate financial security	Baa1	BBB+	8
	Baa2	BBB	9
	Baa3	BBB-	10
Speculative grade ratings	Ba1	BB+	11
Questionable financial security	Ba2	BB	12
	Ba3	BB-	13
Poor financial security	B1	B+	14
	B2	B	15
Very poor financial security	B3	B-	16
	Caa1	CCC+	17
	Caa2	CCC	18
Extremely poor financial security	Caa3	CCC-	19

Source: Moody's Investor Service, 2000 and Standard and Poor's Sovereign Ratings

In order to provide some comparison with the rankings of the financial vulnerability index, numeric values are assigned to the sovereign credit ratings of Moody's and Standard & Poor's, following the methodology of Cantor and Packer (1996). Essentially,

a numeric value is assigned for each rating, and to make the grading comparable with the financial vulnerability index, the lowest value is assigned to countries with the highest ranking, Aaa and AAA respectively, i.e. to the US, the UK and Switzerland in this sample. Countries that are not rated are given a value of 20 for the years in which they were unranked (this may be the entire period under review). This is because not being rated by these agencies is not the same as having a missing value – no rating suggests exclusion from the global investment environment. The process is repeated for each of the countries for the 1986-1996 period to allow for comparison with the financial vulnerability index. The results are shown in Figure 5.3.

Figure 5.3 Average Moody's and S&P Sovereign credit ratings 1986-1996
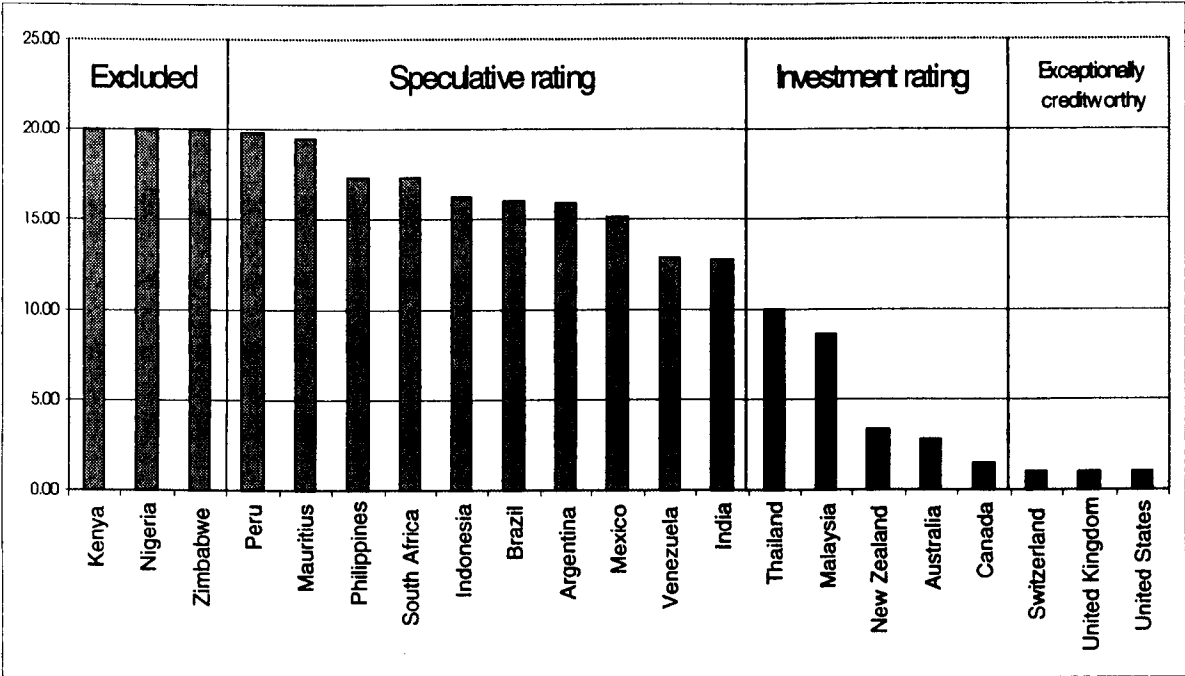
The process reveals that, particularly in the case of Thailand and Malaysia, which have an investment rating throughout this period, the sovereign credit rating agencies provided no warning of the status of the countries prior to the Asian crisis. Indeed, the failure of ratings agencies to provide any indication of the potential for crisis has been well documented in the financial press (*Euromoney*, 1998 and *Economist*, 1997). The

general failure of other predictor models in providing any advanced warning has also been widely discussed (Berg and Pattillo, 2000, Furman and Stiglitz, 1998). At best, the sovereign ratings appear to provide historical rather than current or future information (*Euromoney*, 1998:51). Given the lag in the availability of data, this appears to be unavoidable, if this provides the sole method of evaluation. However, the composition of the indicators used in the rating process suggests that they are unlikely even to provide a good retrospective evaluation of the financial vulnerability of the economies that are rated.

Establishing the criteria by which ratings are made is not a straightforward business, and certainly some of these are not quantifiable (Cantor and Packer, 1996:39). Judgement of risks by analysts plays an important role (Ul Haque, et al, 1997:10). However, based on frequently listed criteria by the rating agencies, Cantor and Packer (ibid.) use regression analysis to support their assertion that six factors explain 90 percent of the variation in these ratings. The six factors are: per capita income, GDP growth, inflation rate, external debt relative to exports, an indicator for economic development (industrialised or not) and an indicator for default history.

If these indicators are the foundations upon which countries are evaluated, it can be said that they are more biased in terms of capturing some notion of 'fundamentals' of the economy than in assessing the liabilities that arise as a consequence of financial inflows. The financial vulnerability index appears to be a better 'assessor' of financial exposure and the risk of credit withdrawal and crisis than the models used by these agencies (although the crisis is likely to have stimulated a re-evaluation of the criteria used (*Euromoney*, 1998:53)).

Of course, the financial vulnerability index was not designed to predict crises. Instead, the process was intended to provide a measure by which to gauge the relative financial exposure and vulnerability of countries, so as to identify small open economies.

However, the historical identification of vulnerable countries just prior to the onset of the Asian crisis, may be seen as a validation of what it is capturing.

Although the application of the financial vulnerability to a larger number of countries is likely to cause shifts along the continuum since the positions are relative, the index and the ranking provides an indication of financial exposure and a means of identifying small open economies.

5.8 Conclusion

The chapter addresses a long-standing deficit in the literature of the small open economy by measuring openness to financial flows explicitly and provides a more precise analysis of what is meant by the term. While small open economies have previously been classified on the basis of size and trade openness, despite the vulnerability of small open economies to credit withdrawal, openness to financial flows has been largely ignored. The financial vulnerability index is developed to measure financial exposure and may be seen as a first step to classifying economies as small and open on the basis of their openness to financial flows.

By means of the financial vulnerability index, South Africa and other emerging economies can be seen to be financially exposed and hence as small open economies. These economies are potentially vulnerable to withdrawal of the capital flows.

The discussion above suggests that while trade openness and financial openness may be complementary concepts, they appear to require different forms of measurement. A country that is open on the basis of trade openness may be relatively closed in terms of financial openness, and *vice versa*. The discussion suggests that exclusive use of the trade intensity ratio to classify openness may result in the financial vulnerability of small economies being neglected.

A comparison of the financial vulnerability with sovereign credit ratings, suggests that the approach to exposure offered here, based on the composition of financial flows and their maturity structure, better captures the vulnerability of countries to financial crisis arising from credit withdrawal.

In order to construct the financial vulnerability index, a lot of detail was subsumed in composite figures and averages for the period. The next chapter aims to examine this detail for three of the countries identified here as small and open: Brazil, Thailand and South Africa.

6. Three small open economies$_{lp}$: Brazil, South Africa and Thailand

6.1 Introduction

The previous chapters have suggested that a small open economy$_{lp}$ is financially vulnerable because it is on the fringe of financial provision in a world where there is preference for centre (liquid) assets. Hence the prospect of credit withdrawal is prevalent, and the consequences of such withdrawal are more severe, the greater the exposure to international capital flows. In chapter five, a financial vulnerability index was constructed as a basis upon which to identify financially exposed and hence small, open economies. This chapter aims to examine in more detail the financial vulnerability of three of the economies identified as small and open in the previous chapter: Brazil, South Africa and Thailand. This will allow a closer examination of the detail that was subsumed in the averages of the financial vulnerability index in the previous chapter. This chapter expands upon the nature of the financial vulnerability that is a common characteristic of these three otherwise distinct countries and why this may lead to their financial fragility.

Since this exercise began as an attempt to compare South Africa's financial exposure with that of other countries, it has been included in the three countries chosen for further examination. South Africa's position as international pariah, which led to financial sanctions between 1985-1993, presents an unusual example of a controlled experiment, in which both exposure to financial flows and integration with the world's markets were dramatically restricted. Hence it might be thought that South Africa's levels of exposure to financial vulnerability and credit withdrawal would be low. In chapter five, South Africa's position on the financial vulnerability index, third after Thailand and Peru, revealed a greater level of exposure than expected, suggesting that its financial openness deserves a closer look.

The other two countries were selected from different regions. Thailand seemed an obvious choice, as it was the most exposed of the countries in Chapter five. Despite being something of a Washington darling as an Asian Tiger exhibiting commitment to free market tenets and prudent policies (World Bank, 1993; Baer et al, 1999), Thailand proved to be vulnerable to credit withdrawal. Brazil was selected as, although it is financially vulnerable according to Chapter five, it may be classified as a large, closed economy, by virtue of its trade openness (see Figure 5.2, Chapter five). In addition, in conventional economic theory Brazil has, as a prominent Latin American country, been criticised for an interventionist approach compared to the free market success story of East Asia (Baer, et al 1999). It was thought it would provide an interesting juxtaposition to Thailand.

The approach adopted here is referred to as one of negative analogy. This is a notion advanced by Keynes in his *Treatise on Probablity,* where he examines the Humean 'egg' paradox. Hume questions the reasoning behind the notion that it is only through a long process of experimentation that we feel secure in the knowledge of an event, even although the instances of experimentation are similar. Hence although all eggs are alike, we do not expect them to taste the same (Hume, quoted in Keynes, 1921: 241). Of course, if all eggs are identical, there would not be much difference in the knowledge gained from multiple tastings of eggs (or repetitions of events), compared to that derived from a single tasting (or event) (Carabelli, 1988:63). Keynes stresses, however, that fundamental to the process of logical induction, and the extension of statements from the particular to the general, is that all eggs (events) considered *should not* be the same (Keynes, 1921: 243). Negative analogy is the process whereby the non-essential characteristics of instances may be varied (so that 'eggs in the town and in the country, in January and in June' (ibid.) ought to be tasted), so as to extend the generalisation and strengthen the argument. Although the financial profiles of the three countries presented here are different, the

chapter aims to examine the proposition that financial exposure of these countries is a common factor of their small openness.

In section two, the three countries are examined on the basis of the aggregate measures from the balance of payments used in the previous chapter (such as the financial account as a percent of GDP). This will provide a sense of the overall vulnerability of the countries to credit withdrawal. In section three, the composition of capital flows both by type and maturity will be examined in more detail, focussing on volatility and reversibility of the flows. In section four, the reserves of the countries and the volatility of their currencies will be examined. The discussion explores the notion that, once open to financial flows, the financial account of a small open economy may dominate the balance of payments. The chapter concludes with a discussion of how financial fragility is related to the financial vulnerability of small open economies[lp].

The analysis presented here is based on a graphical and tabular representation of relationships. While it may be more conventional to compare countries using regression analysis, this presumes a stable structure of relationships that is not appropriate to an open systems approach (Lawson, 1997: 70). Instead, what is being considered here is a complex structure of tendencies, susceptible to countervailing forces, which cannot be presumed to take on simple or invariable manifestations. In the previous chapter, for example, one cannot distinguish between the effect of financial exposure on constrained countries whose situation is inadvertent and those unconstrained countries that *choose* this route. The inability to predict in a situation of endemic uncertainty has been acknowledged within the profession, for example, by Berg and Pattillo (1999) and Kaminsky et al (1998), with the failure of the sophisticated analytical and quantitative techniques employed by the profession to identify the vulnerability of the East Asian countries further evidence of this inability. In addition, international country data is notoriously unreliable and subject to revision and hence inappropriate for sophisticated econometric techniques.

This suggests that a careful consideration of trends within the context of each country is a more appropriate method by which to proceed.

6.2   Balance of payments: Composite measures

Following the methodology of Chapter five, the countries will first be examined in terms of aggregate measures of openness, as recorded on the balance of payments. The data shown are the financial account and current account as a per cent of GDP. The financial account refers to the sum of the net inflows of direct investment, portfolio investment and other investments. It is apparent that the current and financial accounts are not mirror images of each other, the difference being the errors and omissions (or unrecorded items) and change in reserves[1]. These data will be discussed separately below.

Figure 6.1 Brazil's balance of payments
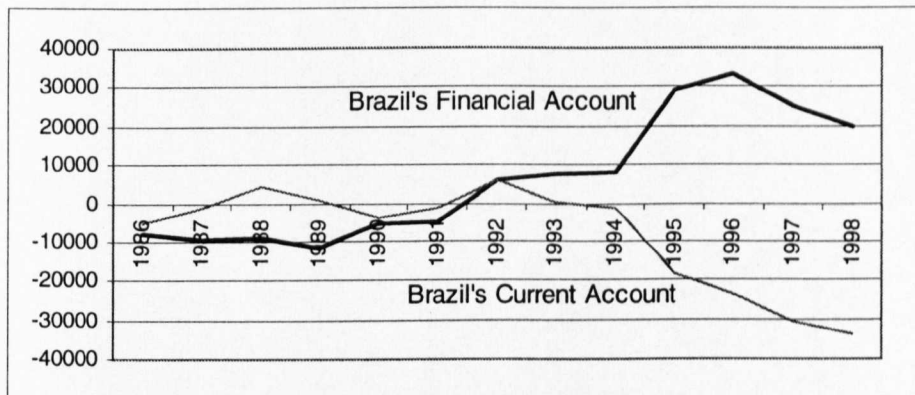
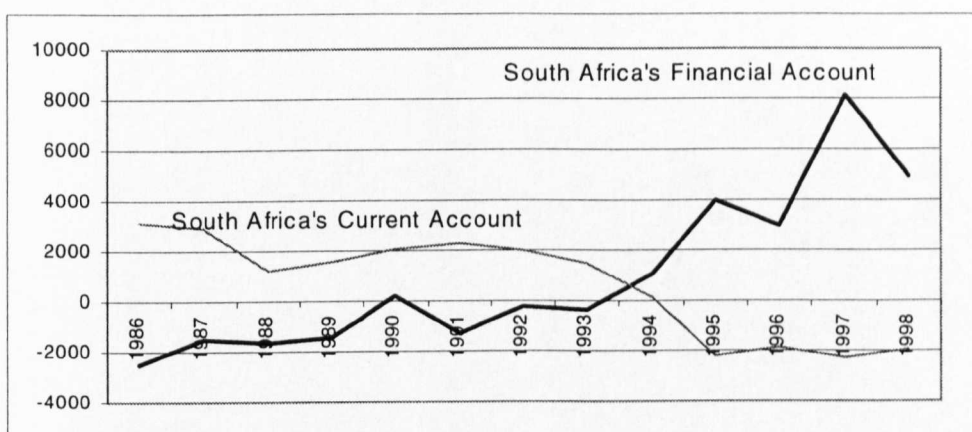Source: International Financial Statistics, WEFA Database

Brazil's balance of payments between 1986-1998 shows that, in the years prior to 1992, the financial account was in deficit, indicating an outflow of capital. This may be partly attributed to the dearth of funds into Latin American countries following the debt crisis of 1982 (Edwards, 1998:4). In 1992, the financial flows reversed and the financial account has been in surplus since then. As Table 6.1 shows, the outflows of the late 1980's

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[1] Strictly, there is also the capital transfer account, which in the case of these three countries is negligible.

were relatively high – over three per cent of GDP. Between 1992 and 1994, inflows amounted to close to one and a half per cent of GDP. In 1995 and 1996, the inflows grew to over four per cent of GDP, permitting a current account deficit of over 2.6 and 3.0 per cent respectively, but also permitting the country to accumulate reserves, as will be seen later. While the growth in capital inflows has financed the deficit on the current account, the inflows since 1995 are seen as excessive (Garcia & Barcinski, 1998: 320). Perhaps as a result of the reversal of sentiment toward emerging markets in 1997, inflows were more subdued in 1997 and 1998.

Figure 6.2 South Africa's balance of payments

Source: International Financial Statistics, WEFA Database

In the case of South Africa (seen in the Figure 6.2), the financial account remained in deficit until 1994, reflecting the financial sanctions in effect since 1985. Financial sanctions were brought about by the refusal of the international banking community to rollover South African debt in August 1985. South Africa faced a debt crisis and in response the South African government imposed a debt moratorium. The subsequent repayment agreement meant that, with access to foreign finance greatly reduced, loans and interest payments on the external debt had to be generated from the current account (Mohr, et al 1994). In 1994, with the advent of the democratic elections in South Africa, capital flows reversed and an inflow amounting to less than 1 per cent of GDP occurred, a significant improvement on 1986, when the outflow on the financial account amounted to

four per cent of GDP. Since 1994, the financial account has been in surplus, with the highest inflow recorded in 1997, when inflows amounted to 6.3 per cent of GDP.

In the case of Thailand (shown in Figure 6.3), the financial account was in surplus for almost the entire period under review, until the second quarter of 1997, when a dramatic reversal of capital flows, associated with the Asian crisis, occurred. In 1995 and 1996, financial flows amounted to over 13 and 10 per cent of GDP respectively, which made the outflow of 1997 equivalent to 10 per cent of GDP (see Table 6.1 below) all the more dramatic.

Figure 6.3 Thailand's balance of payments
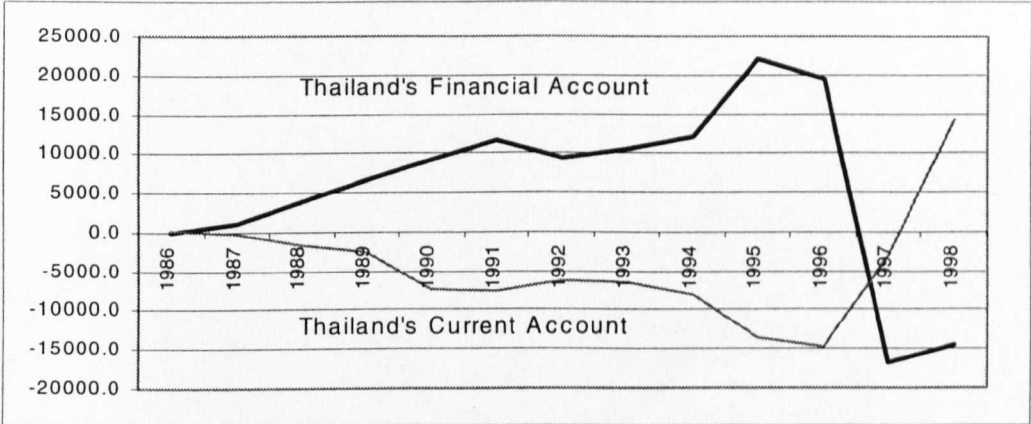
Source: International Financial Statistics, WEFA Database

In this analysis of the balance of payments, the influence of the financial account is emphasised, in contrast to the conventional approach to the balance of payments, which emphasises the primacy of the current account. In the global monetarist approach, capital inflows are a natural financing mechanism of the trade account, and a large and growing trade or current account deficit is only seen as a problem to the extent that these inflows are seen to be inflationary. It is being suggested here that a surplus on the financial account itself constitutes a problem, over and above its inflationary effect (which may be a problem in the case of sustained inflows), because it enhances the vulnerability to credit withdrawal. The volatility of financial flows cause different problems to sustained flows under conditions of full employment.

The emphasis on the financial account draws explicit attention to capital flows and seeks to redress the almost exclusive emphasis of the current account in the literature. The general adoption of the view that financial flows simply accommodate trade has led to an inadequate monitoring of financial flows, even while financial liberalisation has taken place (Bhinda et al, 1999:39). It is suggested here that the financial account of a small open economy is influential in driving the developments on the balance of payments, and hence should be studied in its own right.

Of course, not all countries are equally vulnerable and, for some, 'excess' capital inflows are not a problem. As has been suggested in Chapter five, the composition and relative size of the flows as well as the position of the country in world markets influence vulnerability. The UK for example, by virtue of the size and composition of the capital flows, appears to be more vulnerable than Australia, for example. But the UK's position in the world economy is likely to insulate it from such vulnerability.

Figure 6.4 Trade account deficit as a per cent of GDP
(Net resources inflow)
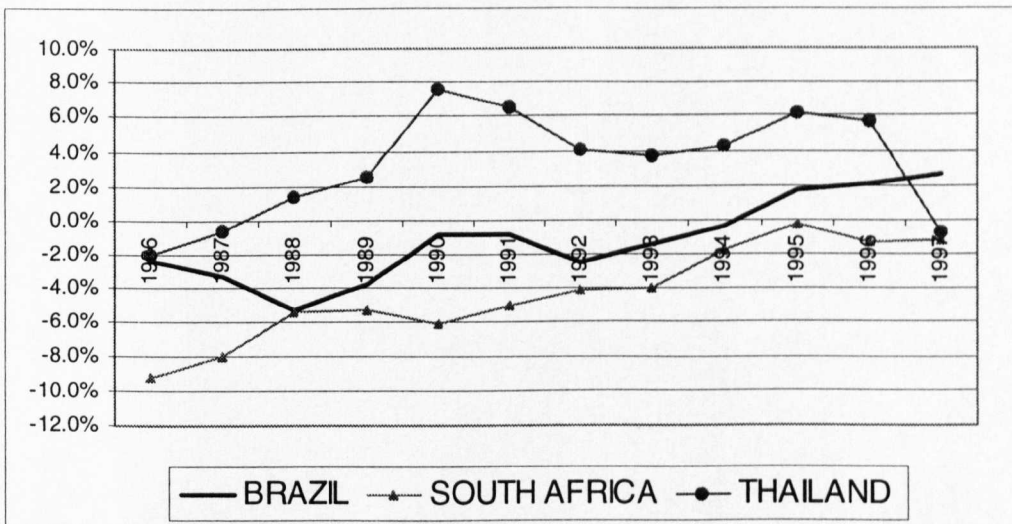
Figure 6.4 represents the data that were used in the first indicator discussed in the financial vulnerability index in Chapter five, Net resources inflow ((Imports-Exports)/GDP). This is the trade deficit as a ratio to GDP. The figure suggests that, in the

case of Brazil, the outflow on the financial account between 1986-1991 was supported by the trade surplus, moving into deficit for the first time in 1995. In South Africa, the financial sanctions meant that, prior to 1994, a trade surplus was necessary to service the outflows of the country, with the surplus as high as nine and eight per cent of GDP in 1986 and 1987 respectively. Even after financial inflows resumed into the country in 1994, the trade account has remained in surplus, albeit at a smaller ratio to GDP.

By contrast, in Thailand, the surplus on the financial account has allowed the trade account to be in deficit virtually throughout the period under review, amounting to over six per cent of GDP in 1990, 1991, and 1995. The trade account reversed sharply from a deficit of just under six per cent of GDP in 1996 to a surplus of just over one per cent of GDP in 1997, as the financial account reversed dramatically, beginning in May 1997.

A bird's eye view of the vulnerability of these countries is perhaps best reflected by the financial account shown as a percent of GDP, as seen in Table 6.1. Thailand's high level of exposure to financial flows since the late 1980's makes it clearly the most vulnerable of the countries to capital reversal. Brazil appears to be the next most vulnerable with a higher level of exposure to financial flows than for South Africa, both in the late 1980's, with higher outflows and in the 1990's with larger inflows.

Table 6.1 Financial account as a per cent of GDP

Year	Brazil	South Africa	Thailand
1986	-3.05%	-4.01%	-0.30%
1987	-3.32%	-1.84%	2.10%
1988	-2.77%	-1.86%	6.23%
1989	-2.55%	-1.60%	9.13%
1990	-1.14%	0.23%	10.62%
1991	-1.26%	-1.14%	11.97%
1992	1.56%	-0.20%	8.51%
1993	1.74%	-0.29%	8.40%
1994	1.44%	0.89%	8.51%
1995	4.26%	2.99%	13.01%
1996	4.43%	2.39%	10.53%

Source: International Financial Statistics and World Bank development Indicators, WEFA Database

As the data for the balance of payments show, the three countries have had different experiences over the past decade. Thailand has mostly experienced inflows, South Africa mostly outflows and Brazil, some of each. This suggests that financial vulnerability is not dependent on the direction of the flows. Because of this, the adjustment caused by international outflows may involve a long period of contraction, as in the case of South Africa, or may cause a sudden and dramatic contraction, as in the case of Thailand. Hence while the contraction in the real economy in Thailand has been more newsworthy (see Krugman, 1999 and Stiglitz, 1998), the capital outflow from South Africa between 1985 and 1993 has been associated with lower investment due to lower imports of capital goods (Hawkins, 1996) and the resultant lowering of the achievable growth rate (van der Walt and De Wet, 1993:11-12).

6.2.1   Errors and Omissions and Change in Reserves

Table 6.2 Errors and Omissions and Change in Reserves
(shown as a per cent of GDP)

Year	Errors and omissions as a % of GDP			Change in Reserves as a % of GDP		
	Brazil	South Africa	Thailand	Brazil	South Africa	Thailand
31/12/86	0.0%	-0.2%	1.4%	-5.0%	0.8%	1.7%
31/12/87	-0.3%	-0.1%	0.5%	-4.1%	1.6%	1.9%
31/12/88	-0.3%	-1.1%	0.7%	-1.8%	-1.6%	4.2%
31/12/89	-0.2%	-0.2%	1.3%	-2.5%	-0.1%	7.0%
31/12/90	0.1%	-0.8%	1.7%	-2.0%	-1.3%	3.8%
31/12/91	0.2%	0.2%	0.4%	-1.4%	1.3%	4.7%
31/12/92	-0.4%	-1.0%	-0.1%	2.8%	0.1%	2.7%
31/12/93	-0.2%	-2.1%	-0.2%	1.6%	-2.3%	3.1%
31/12/94	-0.1%	-0.4%	0.1%	1.2%	0.7%	2.9%
31/12/95	0.2%	-0.6% .	-0.7%	1.9%	1.9%	4.3%
31/12/96	-0.3%	-1.9%	-1.4%	1.1%	-0.8%	1.2%

Source: International Financial statistics and World Bank development Indicators; WEFA Database

It is thought that each of the three countries has fairly substantial unidentified private capital flows that appear within the composite residual category, referred to as errors and omissions. These, together with the change in reserves owing to balance of

payments transactions, account for the differences between the financial and current accounts.

Net errors and omissions is a residual category needed to ensure that all debit and credit entries in the balance of payments statement sum to zero and reflect statistical inconsistencies in the recording of the credit and debit entries. It is equal to the sum of the current account, the capital transfer account and the financial account (IMF, 1999:xviii). Errors and omissions account for unofficial flows – as well as leads and lags in export and import payments (Porter, 1972:397). The residual category appears to have become larger as financial deregulation has made it harder to monitor transactions (Coutts and Godley, 1990: 85). Summing the errors and omissions and private short-term capital outflows is one of the methods used to estimate capital flight (Lessard and Williamson, 1987)).

In South Africa, for virtually the entire period, net errors and omissions have been negative, making up 2.1 per cent of GDP in 1993. This residual category is likely to represent capital flight (Bhinda et al, 1999:42), a consequence of many years of exchange control and political uncertainty (Wood & Moll, 1994:41). In the case of Brazil, the errors and omissions have also been largely negative, except in 1995, when errors and omissions amounted to 0.2 per cent of GDP, and the financial account amounted to over 4 per cent of GDP for the first time. This residual could well represent the return of flight capital, or the return of FDI, whereas the other years are likely to represent unrecorded capital flight. The errors and omissions for Thailand are all positive prior to 1991, whereafter they are mostly negative. The negative values for errors and omissions support the notion that they could represent unrecorded private capital flight, which tends to worsen the vulnerability of small open economies, as discussed in chapter four.

The data for the change in reserves owing to balance of payments transactions (or overall balance) show that this has accounted for most of the difference between the financial and capital accounts in the case of Brazil and Thailand, and a substantial portion

account since 1992 is further discussed below and in section 4. In Thailand, the change in reserves has been positive every year and in general larger than the errors and omissions as a percentage of GDP. In South Africa, changes in reserves were positive for two of the years since 1994, although the value for changes in reserves in 1993 was large and negative. In South Africa, the errors and omissions are more significant in accounting for the difference between the current and financial accounts than the changes in reserves.

Residuals and changes in reserves are two aspects of the balance of payments that were not examined in Chapter five in the financial vulnerability index. They are two aspects that may also distinguish between vulnerable and invulnerable countries. Residuals are often associated with capital flight and it is likely that capital flight will be greater from small open countries. In addition, volatile changes in reserves are a common characteristic of small open economies (van der Merwe, 1996:18). Hence these two aspects may distinguish between vulnerable countries and those which are exposed to financial flows but are not rendered vulnerable by them. In terms of the earlier analogy, there may be similarities between hen eggs and ostrich eggs, but there will also be significant differences.

Table 6.3 Errors and Omissions as a per cent of GDP (Five Countries)

Year	Brazil	US	Thailand	UK	South Africa
31/12/86	0.02%	0.71%	1.39%	1.09%	-0.21%
31/12/87	-0.27%	-0.16%	0.49%	0.00%	-0.10%
31/12/88	-0.25%	-0.36%	0.67%	0.40%	-1.09%
31/12/89	-0.18%	0.93%	1.29%	0.76%	-0.22%
31/12/90	-0.06%	0.43%	1.66%	0.21%	-0.85%
31/12/91	0.22%	-0.82%	0.44%	-0.39%	0.18%
31/12/92	-0.37%	-0.78%	-0.13%	0.79%	-0.99%
31/12/93	-0.19%	0.05%	-0.18%	0.11%	-2.08%
31/12/94	-0.08%	-0.13%	0.06%	1.10%	-0.37%
31/12/95	0.21%	-0.34%	-0.71%	0.28%	-0.64%
31/12/96	-0.27%	-0.89%	-1.42%	-0.31%	-1.87%
Mean	*-0.11%*	*-0.12%*	*0.32%*	*0.37%*	*-0.75%*
Std deviation	*0.20%*	*0.61%*	*0.93%*	*0.51%*	*0.72%*

Source: International Financial statistics and World Bank development Indicators; WEFA Database

In Tables 6.3 and 6.4 errors and omissions and changes in reserves are shown for the three small open economies (as in Table 6.2) together with data for the US and the UK. In chapter five, the US was seen as relatively invulnerable, whereas the UK was relatively more exposed to financial flows, but less vulnerable than other countries similarly exposed, because of its international position.

In Table 6.3, errors and omissions as a % of GDP are shown. While the relatively vulnerable countries generally have larger errors and omissions, there are several issues that come into play in terms of explaining their size. Errors and omissions can be large in times of speculation (Porter, 1972:397), which may account for the relatively high level of errors and omissions in the UK in 1992, say. Both Brazil and the US, with larger domestic markets have relatively small errors and omissions, in terms of mean and variance. The UK and Thailand have similar levels of exposure, with South Africa's residual on the balance of payments being larger than for all these countries. The data seem to suggest that many motives for capital flows are bundled together in this residual category.

Table 6.4 Change in reserves as a per cent of GDP (Five Countries)

Year	US	UK	Brazil	South Africa	Thailand
31/12/86	-0.01%	0.65%	5.0%	-0.8%	-1.7%
31/12/87	-0.20%	2.77%	4.1%	-1.6%	-1.9%
31/12/88	0.08%	0.55%	1.8%	1.6%	-4.2%
31/12/89	0.48%	-0.88%	2.5%	0.1%	-7.0%
31/12/90	0.04%	0.00%	2.0%	-1.3%	-3.8%
31/12/91	-0.10%	0.46%	1.4%	-1.0%	-4.7%
31/12/92	-0.07%	-0.64%	-2.8%	-0.4%	-2.7%
31/12/93	0.02%	0.58%	-1.6%	1.1%	-3.1%
31/12/94	-0.08%	0.15%	-1.2%	-0.6%	-2.9%
31/12/95	0.14%	-0.08%	-1.9%	-0.7%	-4.3%
31/12/96	-0.09%	-0.06%	-1.1%	1.0%	-1.2%
Average	0.02%	0.32%	0.74%	-0.24%	-3.40%
Std Deviation	0.18%	0.95%	2.60%	1.06%	1.64%

Source: International Financial Statistics and World Bank Development Indicators, WEFA Database

The data for changes in reserves in Table 6.4 may distinguish better between vulnerable and invulnerable countries, with reserves larger (in absolute average terms) and more volatile in the case of exposed countries. The mean and variance of the countries

suggest that relatively invulnerable countries, like the US and the UK have smaller variability in their overall balance than vulnerable countries like Brazil and Thailand. This seems to support the notion that a highly variable overall balance of payments may be associated with small open economies. In the case of South Africa, its capital controls may account in part for the relatively smaller changes in reserves. In addition, its high level of outward errors and omissions perhaps need to be read together with the data for overall balance.

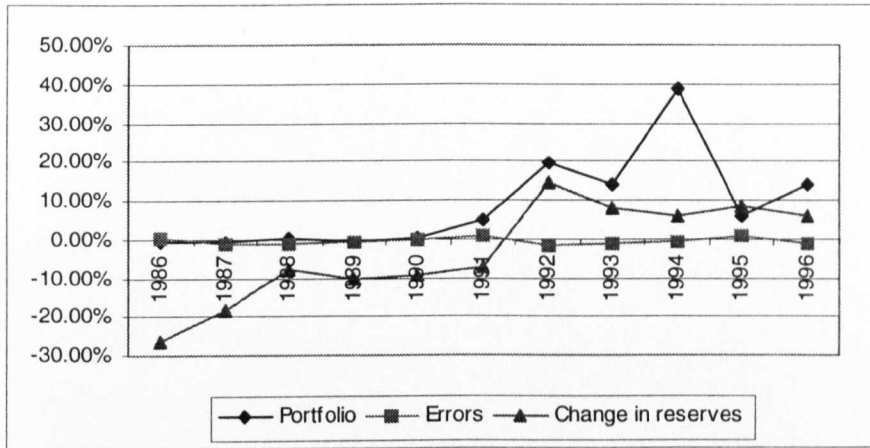Figure 6.5 South Africa: Errors and omissions and Change in reserves relative to Portfolio flows
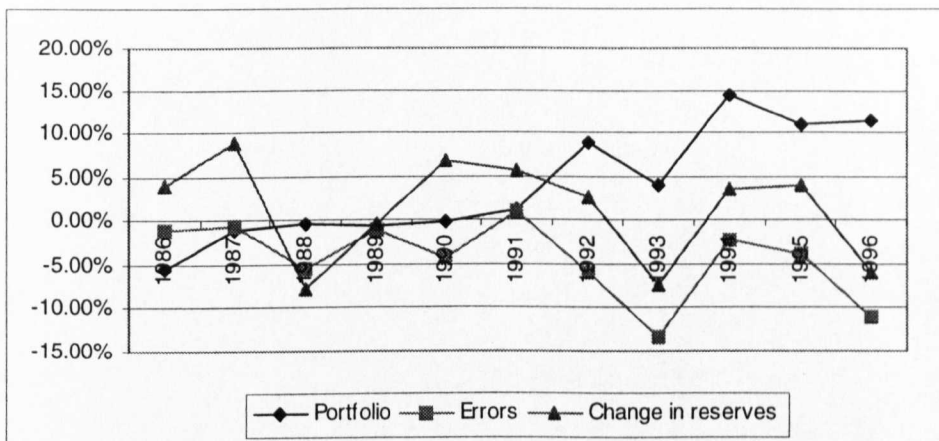
Source: International Financial Statistics and World Bank development Indicators; WEFA Database

Assessing the importance of errors and omissions and changes in reserves is easier when compared with other flows measured on the balance of payments. In the figures below, the errors and omissions and changes in reserves are plotted as a ratio of GDFI, for the three small open economies, to allow for comparison with various subcategories of the financial account. This process is intended to simply be illustrative of the relative significance of the residuals and changes in reserves – but the discussion of the different categories of flows on the financial account is reserved for section 6.3.

In the case of South Africa, seen in Figure 6.5, the changes in reserves and portfolio flows appear to correspond after 1991 – suggesting that there are both official and unofficial private portfolio flows. In addition, there seems to be a strong positive relationship between errors and omissions and changes in reserves, from 1991.

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In Brazil, as is seen in Figure 6.6, errors and omissions make up a relatively smaller proportion of GDFI than the changes in reserves. Until 1994, when portfolio inflows increase sharply, a positive relationship between portfolio flows and reserves may be said to exist.
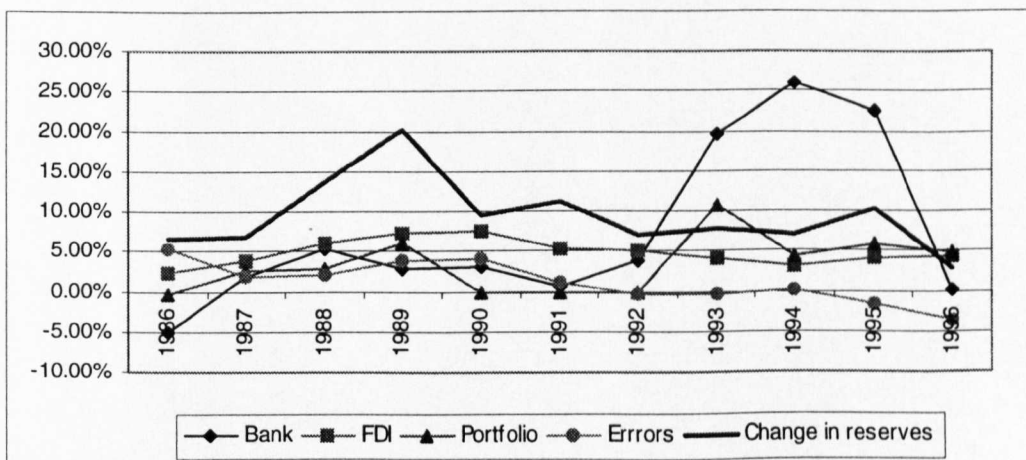
Figure 6.6 Brazil: Errors and omissions and Change in reserves relative to Portfolio flows

Source: International Financial Statistics and World Bank development Indicators; WEFA Database

In Thailand, the errors and omissions and changes in reserves are plotted together with the FDI, Portfolio and Bank flows, all as ratios of GDFI. Both the errors and omissions and changes in reserves appear to be as significant as the other flows, apart from the period 1992 to 1995, when bank inflows dominated the balance of payments.

Figure 6.7 Thailand: Errors and omissions and Change in reserves compared to a breakdown of financial flows

Source: International Financial statistics and World Bank development Indicators; WEFA Database

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When examined from the perspective of the financial account, therefore, it appears that a surplus of capital inflows can be problematic in its own right, as capital inflows are susceptible to reversal. When financial flows reverse, they are likely to result in economic adjustment and possibly upheaval. In addition to officially captured flows, there are also errors and omissions – which in the case of South Africa, Brazil and Thailand may represent capital flight. While it was thought that errors and omissions might be a distinguishing feature of vulnerable countries, it appears that countries of all sizes may have unofficial flows of varying size. However, changes in reserves, or the overall balance may provide a better classifier, with the small open economies displaying more volatility in reserves relative to the invulnerable countries examined here. In addition, the size of reserves suggests an awareness on the part of the authorities of this volatility.

The discussion of the balance of payments suggests that, although the profile of the financial account in each of these three countries is different, they all appear to be vulnerable to financial flows and credit withdrawal. In the next section, the composition of these flows will be further examined.

## 6.3 Composition of financial flows by type and maturity

One of the enduring themes in the literature on financial flows concerns the relative stability and longevity of different types of flows. FDI is generally seen as the most committed form of investment, with bank loans seen as most transient. To some extent, the notion of the stability of FDI flows was supported by the outcome of the Asian crisis, as FDI flows to the Asian region declined relatively modestly (by US $2.4 billion) in 1997, compared to portfolio flows and bank loans which declined by $8.5 billion and $73 billion respectively (IMF, 1998: 16).

However, even the IMF extends the caveat that distinctions applied to produce data for FDI and portfolio flows (read long and short-term distinctions) remain largely arbitrary

(ibid.). Indeed in Brazil, the central bank classifies portfolio flows as medium to long term flows (Garcia and Barcinski, 1998). The classification of FDI figures as long-term ignores the likelihood of hedging by foreign investors – who may borrow capital locally, which may mean that the plant set-up will be classified as FDI, and the bank lending will be seen as a capital outflow (IMF, 1998:16).

In this section, FDI flows, portfolio flows and the positions of countries in terms of bank assets and liabilities will be examined. The data presented here for FDI, portfolio and bank flows seem to support the findings of Claessens et al (1995), that FDI flows are no more predictable or stable than short-term flows.

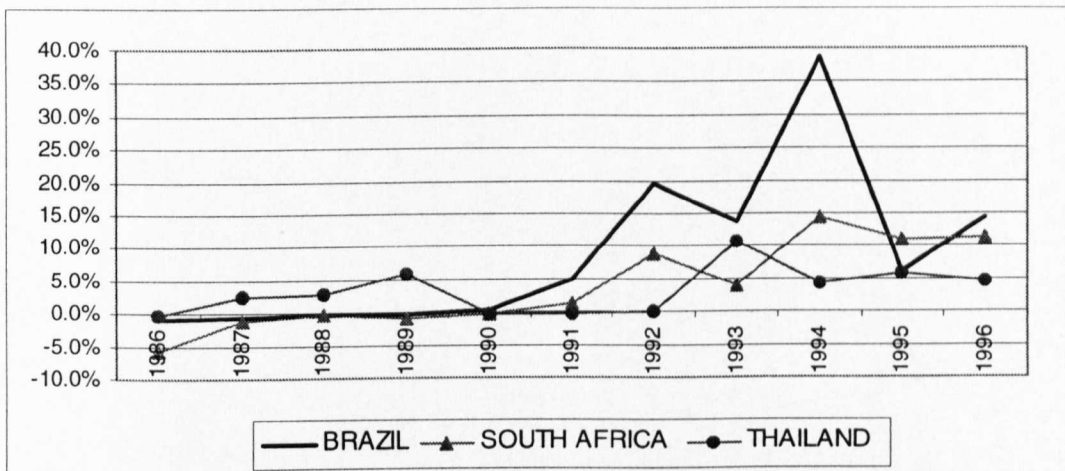Figure 6.8 Foreign direct investment as a per cent of GDFI
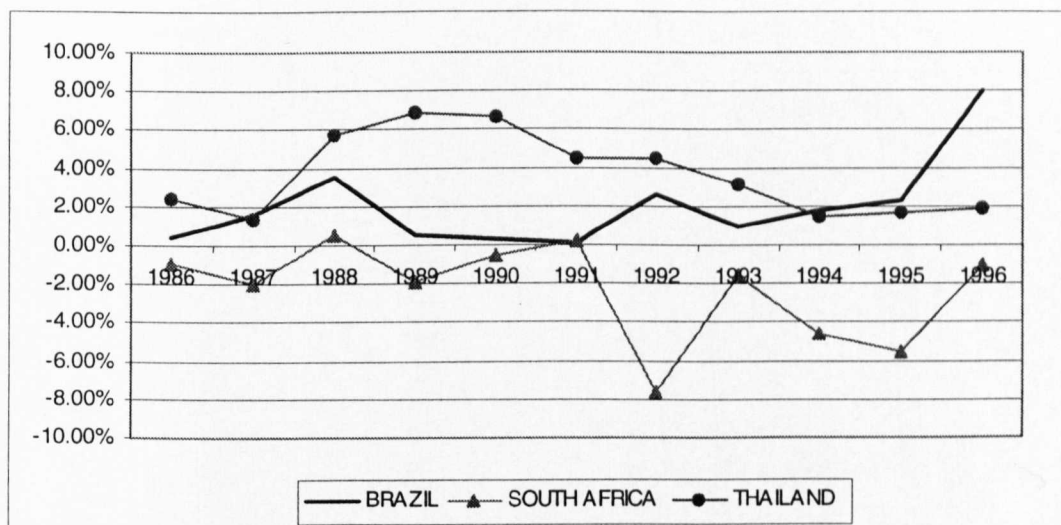
Source: *International Financial Statistics and World Bank development Indicators; WEFA Database*

The flows of foreign direct investment (FDI) as a per cent of gross domestic fixed investment (GDFI) (shown in Figure 6.8), suggest that Thailand has had prolonged and sustained FDI flows throughout the period under review. In the late 1980's and early 1990's, in particular, FDI was in the range of 6 percent of GDFI. Although this tapers off to some extent towards the end of the 1990s, FDI remains positive throughout the period under review. The same can be said for Brazil, although FDI appears to be far more volatile from year to year. While the relative inflows were not as significant as for

Thailand during late 1980's and early 1990's, in 1996 FDI flows to Brazil increased dramatically, to 8 per cent of GDFI.

In contrast with the positive inflows of FDI for Thailand and Brazil, South Africa has experienced outflows of FDI over the period under review. The FDI data for South Africa demonstrate the volatility of FDI flows. In addition, apart from two years where FDI flows are moderately positive, FDI flows are negative throughout. From the exclusive perspective of FDI flows, which are generally taken to imply longer-term commitment by investors, the position of Thailand and Brazil appears to be more stable and less vulnerable to credit withdrawal than that of South Africa.

Figure 6.9 Portfolio investment as a per cent of GDFI

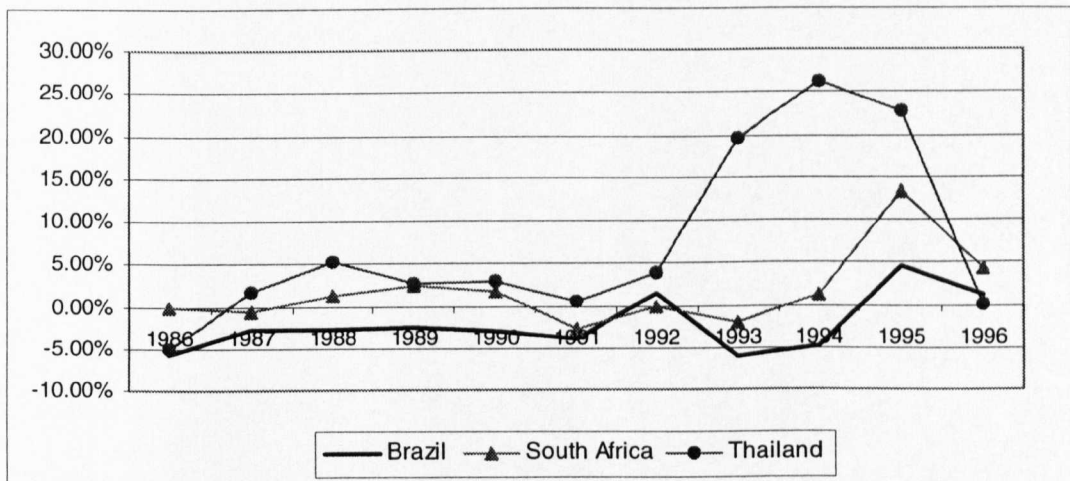Source: *International Financial Statistics and World Bank development Indicators; WEFA Database*

Figure 6.9 shows that all three countries were recipients of the revival of private capital flows to emerging markets in the early 1990's, as reflected in portfolio flows (Garcia & Barcinski, 1998: 320; IMF, 1998). However, the impact of this revival takes effect in each of the countries in different years. In Brazil, the inflow of portfolio flows begins to take effect in 1991, when portfolio flows increase from 0.5 per cent of GDFI in 1990, to 5 per cent. Portfolio inflows peak at close to 39 per cent of GDFI in 1994, however, in 1995, in the aftermath of the Mexican crisis, portfolio inflows slump to just over 6.14 percent of GDFI, before increasing again to 14 per cent of GDFI in 1996.

While Thailand received portfolio inflows in the late 1980's, amounting to almost 6 per cent of GDFI in 1989, the early 1990's saw a reversal of portfolio flows. Portfolio flows resumed in 1993, when they made up close to 11 per cent of GDFI. While the inflows fell back in subsequent years, they still made up over 4 per cent of Thailand's GDFI in 1994, 1995 and 1996.

South Africa experienced relatively small portfolio outflows until 1992, when portfolio inflows amounted to close to 9 per cent of GDFI. Since 1994, portfolio inflows have amounted on average to over 12 per cent of GDFI, peaking at a value of 14.5 per cent of GDFI, in 1994.

The data on portfolio flows appear to confirm the association with volatility. In terms of exposure to these flows, Brazil appears the most vulnerable relative to the other two countries, whereas Thailand is the least exposed to a change in sentiment affecting portfolio flows.

Figure 6.10 Net Foreign Bank Inflows as a per cent of GDFI

The data in Figure 6.10 shown here are IMF data classified under 'other investment flows', which include all capital transactions that are not covered in direct investment, portfolio investment or reserves. There are three broad categories of 'other' debtor – the data here refer to net inflows from public and private retail banks (excluding

central banks) (IMF, 1988:71). For purposes of comparison with the previous two figures, these flows are expressed as a per cent of GDFI.

The high level of exposure of bank flows in Thailand, relative to both Brazil and South Africa, contrasts with the stable picture of Thailand's inflows depicted by the FDI and portfolio flows in the previous two figures. It has been suggested that the high level of bank flows into Thailand in 1993, 1994 and 1995 followed by a sudden contraction in banks' foreign borrowing in 1996, marked the onset of the crisis that followed (Hardy, 1998:35). Brazil and South Africa have made less use of bank credit, although their exposure increases towards the end of the period.

Table 6.5 provides information on the stock positions of each of the countries in terms of assets and liabilities with the international banking community. These data are provided by all reporting banks to the BIS, vis-à-vis each country. Banks report on their respective assets and liabilities in each country; the table here reflects the position from each country's perspective – its deposits as a ratio to its loans.

In Thailand's case, the deposit to loan ratio amounted to as much as 50 per cent in 1989, however, since then it has declined substantially. In 1992, foreign exchange was deregulated in Thailand and the Bangkok International Banking Facility (BIBF) was established, in a move to establish Bangkok as a financial centre (Nidhiprabha, 1999: 68). It was assumed that foreign capital would be attracted if capital mobility prevailed. The BIBF was set up to attract foreign funds and to allow local and foreign banks to take foreign deposits and borrow in foreign currencies and then lend on (Lauridsen, 1998:1576). The data in Table 6.5 show that, prior to the financial liberalisation of 1992, Thai deposits made up a higher proportion of loans than after 1992 changes. On average from 1987-1991, the ratio of deposits to loans was close to 37 per cent, after 1992 deposits averaged just over 13 per cent of loans. The substantial inflow of loans into Thailand, with

the benefit of hindsight, has been labelled 'private sector' failure (Lauridsen, 1998:1576).

It is discussed below as contributing to financial vulnerability as well as financial fragility.

Table 6.5 Country deposits as a ratio to loans with BIS Banks

Country	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Brazil	16.72%	21.46%	28.54%	34.97%	39.72%	41.86%	37.66%	57.97%	84.78%	79.23%	65.12%
South Africa	20.98%	26.07%	32.24%	34.29%	36.26%	31.99%	36.76%	36.54%	43.15%	38.97%	45.25%
Thailand	36.60%	41.65%	50.63%	29.44%	26.61%	19.11%	14.43%	12.93%	12.59%	9.07%	12.32%

Source: Bank of International Settlements

The increase in deposits as a proportion of loans for South Africa may reflect the gradual relaxation of exchange controls since the abolition of the financial rand in 1995, which effectively abolished control over non-residents (Kahn, 1996:2). Since then, the exchange controls on citizens have been relaxed, allowing them official opportunity to make deposits abroad.

In the case of Brazil, deposits as a proportion of loans increased throughout the period. Prior to the Real plan of 1994, deposits averaged around 34 per cent of loans, however, after the Plan was implemented, deposits grew considerably, to 85 per cent and 79 per cent of loans in 1995 and 1996 respectively. The average level of deposits after 1994 was 72 per cent of loans. The high level of deposits is likely to be associated, in part, with the high level of reserves maintained by Brazil from 1992. This is discussed further in section 6.4.

Figure 6.10 shows Thailand to be more exposed to commercial bank loans than the other two countries, at the same time that its deposit to loan ratio remains comparatively low (Table 6.5). This emphasises Thailand's relatively good access to bank credit, as supported by its reputation and status as an 'investment grade' country. This reputation was upheld until the crisis erupted. For example, in a report published in May 1997, the World Bank praised Thailand for achieving bank credit expansion without creating the

standard symptoms of overheating (World Bank, 1997:247). This access to international flows is probably partly responsible for the development financial fragility, apparent in retrospect, in the Thai economy. This contrasts with the position of the other two countries, whose lower growth rates and 'speculative' ratings would probably not afford them the same access to bank credit, particularly in the late 1980s and early 1990s.

The decomposition of the financial account into three of its constituent parts therefore suggests that the composition of financial exposure of each of the countries is different. Of these three countries, Thailand received the most sustained inflow of FDI, which is considered to be the most stable of the flows tracked within the financial account. Although its exposure to portfolio flows was low, Thailand had relatively high, unprotected exposure to bank credit, which is notoriously easy to withdraw. By contrast, Brazil's financial exposure to portfolio flows is greater than for the other two countries, and outweighs its exposure to other flows. Given that equity investors may be more sensitive to expectations than banks, equity flows are likely to respond to expected capital gains and international interest rates (Eichengreen & Fishlow, 1998:53). Hence Brazil's high levels of exposure to portfolio flows is likely to leave it vulnerable to capital withdrawal. In the case of South Africa, net FDI inflows have been largely negative, with exposure to portfolio inflows and bank loans increasing in recent years.

Since the data shown end in 1996, the East Asian crisis is a useful milestone against which to contextualise this data. At the time of the Asian crisis, South Africa was only moderately affected (IMF, 1999:36), however, both South Africa and Brazil experienced strong outflows of capital in May 1998 and September 1998, respectively. Thailand's boom of international lending, followed by a sudden withdrawal of funds has been labelled a 'crisis of success' (Radelet & Sachs, 1998:2). While this suggests that the capacity to attract capital may be seen as a goal for which to strive, the view forwarded here is that it simultaneously enhances the vulnerability of a small open economy.

Although Thailand had experienced relatively stable long term flows, these were not significant enough to balance the massive reversal of commercial bank lending which took place as the crisis reached full force in October 1997. There is also the suggestion that FDI inflows may often be hedged by short-term flows (IMF, 1999:51). Hence an increase in FDI inflows may increase short-term exposure in terms of other flows, hence the increase in FDI inflows and bank liabilities may be linked.

The disaggregation of the financial flows for these three countries suggests that financial flows are by their nature volatile and cannot be relied upon. While the composition differs for the three countries, inflows that are relatively easy to withdraw are seen to heighten exposure to credit withdrawal. In addition, although there is the sense that domestic policies may influence these flows, at least in terms of encouraging flows through the relative attractiveness of the economic environment – liberalisation appears to be strongly associated with an increase in flows. The relative effectiveness of policy in maintaining these flows once there has been a change in sentiment remains doubtful, however.

To complete the evaluation of the composition of financial flows into each of these countries, the maturity of the financial liabilities will be examined. Both the short-term maturity of all external bank loans and the short-term debt as a ratio of total external debt will be examined.

Table 6.6 records the short-term maturity of all international bank loans associated with the Bank for International Settlements (BIS). The data shown here are those published since the 1997 crisis, and hence provide only a small window into short-term exposure to bank loans.

In the case of Thailand, at the end of 1997, the short-term bank loans made up over 80 per cent of total bank loans. This high level of bank loans can be attributed to a combination of the interest rate differential together with the fixed exchange rate of the

baht to the dollar, which encouraged foreign loans as currency risk was thought to be minimal. The capacity to borrow from the international markets at low interest rates encouraged credit expansion, with bank credit expanding by 30 per cent in 1994 and 1995 (Nidhiprabha, 1999:69). However, while eager to loan capital, foreigners still exercised caution and lent short term (Laurisden, 1998:1576). In addition, the volume and proportion of short-term debt is likely to increase with financial liberalisation and sophistication (Rodrik & Velasco, 1999:20). From 1992, Thailand became increasingly more integrated with the world's financial markets. Hence growth in *short-term* exposure was encouraged. After the onset of the change in investor sentiment in July and August 1997, short-term exposure reduced markedly as a ratio of total loans. Short-term loans as a proportion of total loans fell to 59 per cent of all loans by June 1998. However, in nominal (US Dollar) terms, short-term debt grew, as did total bank loans, indicating that debt was re-negotiated after the crisis.

In the case of both Brazil and South Africa over the year after the Asian crisis, exposure to short term loans as a proportion to total debt was reduced. By December 1998, the proportion of short-term loans between countries is much more even, with short-term exposure of South Africa marginally the highest. However, in terms of absolute numbers, South African bank liabilities are roughly a quarter of those of Brazil, and half of those of Thailand.

Table 6.6 Short-term maturity of international bank loans as recorded by the BIS

	December-97			June-98			December-98		
In millions of US Dollars	Consolidated claims of BIS reporting banks	Short term maturity (up to one year and less)	Short term maturity as a % of Total claims	Consolidated claims of BIS reporting banks	Short term maturity (up to one year and less)	Short term maturity as a % of Total claims	Consolidated claims of BIS reporting banks	Short term maturity (up to one year and less)	Short term maturity as a % of Total claims
Brazil	75534	48591	64.33	84585	52978	62.63	73318	41040	55.98
South Africa	21002	14025	66.78	21657	13746	63.47	19434	11917	61.32
Thailand	25970	21187	81.58	46801	27767	59.33	40740	23684	58.13

Source: Bank of International Settlements

The data in Table 6.7 show how the ratio of external debt to GDP has changed over the decade under review. The ratio of Brazilian external debt to GDP declines, from a high of over 40 per cent of GDP in 1986, reducing to just under 24 per cent of GDP by 1996. Thailand's external debt to GDP ratio appears to wane and then wax, so that, from 1995, its external debt exceeds 45% of its GDP. This pushes Thailand over the World Bank threshold for less-indebted countries, and makes Thailand a moderately-indebted country (World Bank, 1997: 49-50).

As a result of South Africa's debt rescheduling in 1985, data derived from IMF statistics and the South African Reserve Bank show that, prior to 1993, South Africa's external debt was exclusively long-term debt. The relatively rapid increase in South African debt from the low levels of 1992, to 18.7 of GDP in 1996, is well within the World Bank's threshold of less-indebted countries.
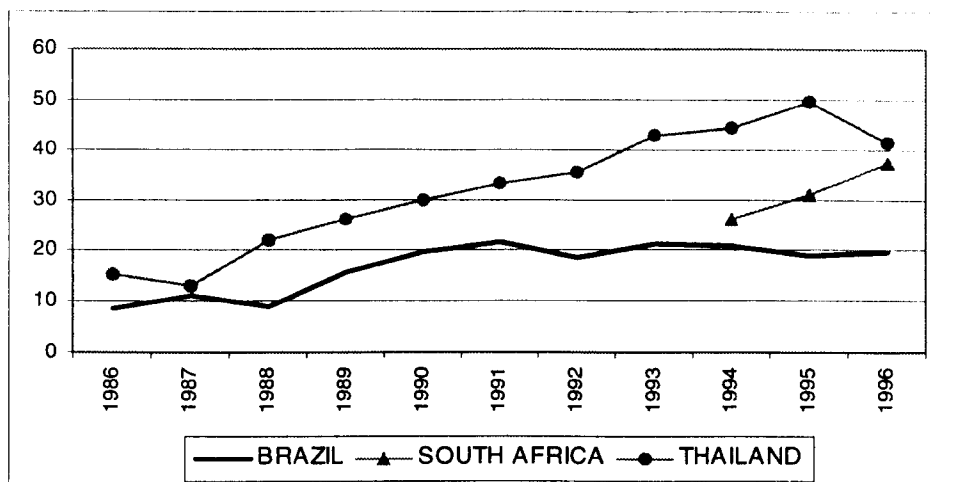
Table 6.7 External debt as a ratio to GDP

Year	Brazil	South Africa	Thailand
1986	40.66		42.94
1987	40.74		40.18
1988	35.58		35.22
1990	25.52		32.52
1991	25.02		32.80
1992	31.31	0.31	38.38
1993	34.15	0.50	37.56
1994	32.93	5.67	42.15
1995	27.17	15.39	45.81
1996	23.21	16.64	49.40
1997	23.91	18.68	49.08

Source: International Financial Statistics, World Bank development Indicators and South African Reserve Bank Quarterly Bulletin, WEFA Database

The exposure to short term debt, as shown in Figure 6.8, reveals a less comforting picture, particularly with regard to South Africa. According to the IMF figures, South Africa's short-term exposure amounted to 12 per cent in 1993. The increase in short term exposure from this level to 37 per cent by 1996 is striking and the short-term exposure suggests that, while investors were prepared to lend to South Africa, they still regarded the country as risky and were disinclined to lend for longer terms.

Figure 6.11 Short-term debt as a percentage of Total external debt

Brazilian short-term debt as a ratio to external debt shows an upward trend from 1986-1991, but thereafter it reaches a plateau and stabilises. The short-term debt makes up 22 per cent of all external debt in 1991, and then stabilises around this level; so that from 1992 to 1996, it makes up on average around 20 per cent of external debt.

By contrast, Thailand's share of short-term debt has climbed steeply, from around 15 per cent of total external debt in 1986 to a peak of over 49 per cent in 1995. This fell slightly in 1996, to 41.4 per cent of total debt, just prior to the crisis. In 1996, the service on Thailand's total external debt made up nearly 5 per cent of GDP (IMF, 1998).

The higher the proportion of short term debt, the greater the likelihood of liquidity problems should credit be withdrawn. To some extent, the level of reserves (examined next) may mitigate against a short-term liquidity crisis brought about by withdrawal of short-term credit.

6.4 Reserves and exchange rate volatility

Gross international reserves can be seen as performing two potential roles: They are a safety net against sudden changes in credit worthiness and hence a means by which default resulting from short term liquidity pressures can be avoided or delayed. Reserves

can also be seen as the means by which the value of the currency can be protected (Garcia and Barcinski, 1998: 319). This latter reason is particularly significant where countries are maintaining their currencies at a fixed peg, such as in Brazil and Thailand. Figure 6.12 (with data for Brazil shown on the LH axis, and for South Africa and Thailand on the RH axis) gives a sense of the periods and amplitude of volatility in the value of the exchange rates for the three countries.

Figure 6.12 Volatility of exchange rates (shown by quarter)
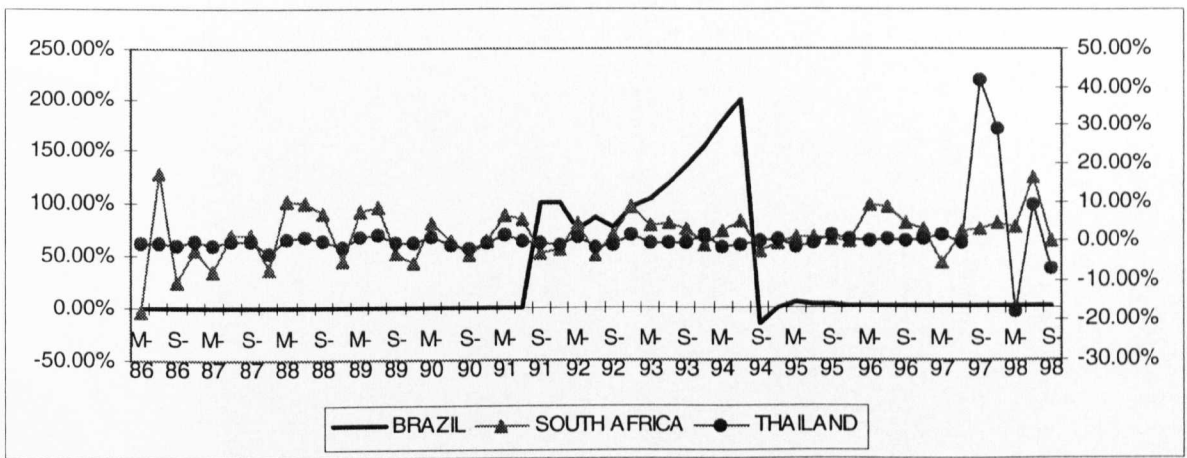
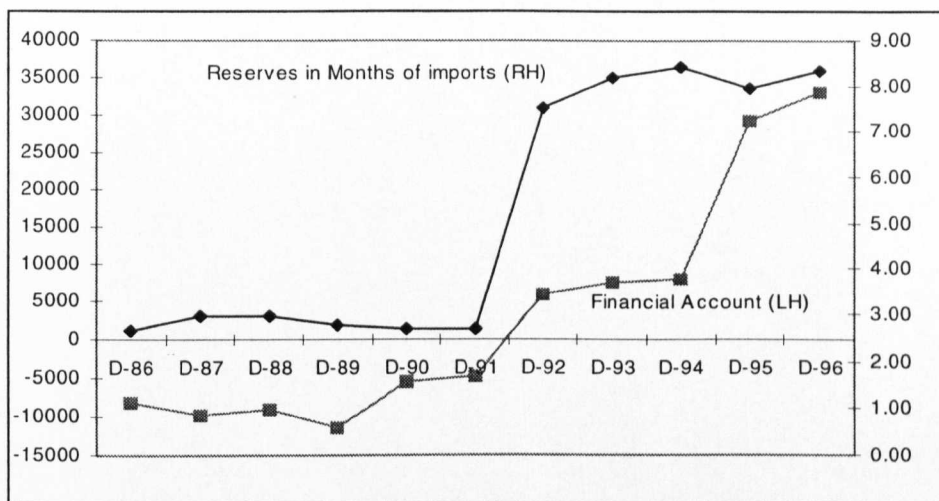Source: International Financial statistics, WEFA Database

The data don't adequately capture the changes in the Brazilian currency over this period. In 1990, in the face of inflation around 5000%, the cruzeiro was restored as the currency (Palma, 1999:15). Prior to the introduction of the Real Plan in July 1994, between 1991 and 1994, the currency experienced substantial volatility, with quarter-on-quarter changes ranging from 75 - 200 per cent. In July 1994, the Real was introduced as the currency and a new peg established. Since then, with the support provided by large reserves, discussed below, Brazil has maintained a stable value of the Real, and a stable inflation rate. However, using the nominal exchange as a price 'anchor' has been seen as a process whereby domestic balances have been shifted into the external sector – with long term future costs (ibid. 10).

The capacity of Brazil to maintain the new peg appears to have much to do with its high level of reserves. Between the years 1986-1991, Brazil's reserves, represented in

months of imports, were just under the three-month benchmark, but in 1992 reserves increased dramatically to over 7 months of imports. 1992 was also the year when financial flows into Brazil turned positive, amounting to over 1.5 per cent of GDP. The relationship between Brazil's financial account and its international reserves are shown in Figure 6.13.

Figure 6.13 The relationship between Brazil's financial account and its reserves

The figure suggests that the inflows since 1992 have been used largely to supplement reserves. While an increase in capital flows in a fixed exchange rate regime is associated with an increase in reserves, it is also associated with monetary expansion and increased inflation (Edwards, 1998:20). Eichengreen and Fishlow (1998:26) suggests that the relatively prudent action by small open economies in building up reserves in response to inflows in recent years, distinguishes between the reaction to inflows in the 1990s and those of the early 1980s.

Relative to Brazil, Thailand's stable peg has been supported by a lower level of reserves, and a more stable inflow of foreign direct investment; both of which are influenced by its reputation. Thailand's reserves were greater than the three months' import cover threshold throughout the period under review, however, it has not accumulated reserves to the same extent as Brazil (Figure 6.14). Thailand's only

experience of exchange rate volatility in this period occurred at the time of the Asian crisis, under pressure of large capital outflows.

Figure 6.14 Gross international reserves in months of imports
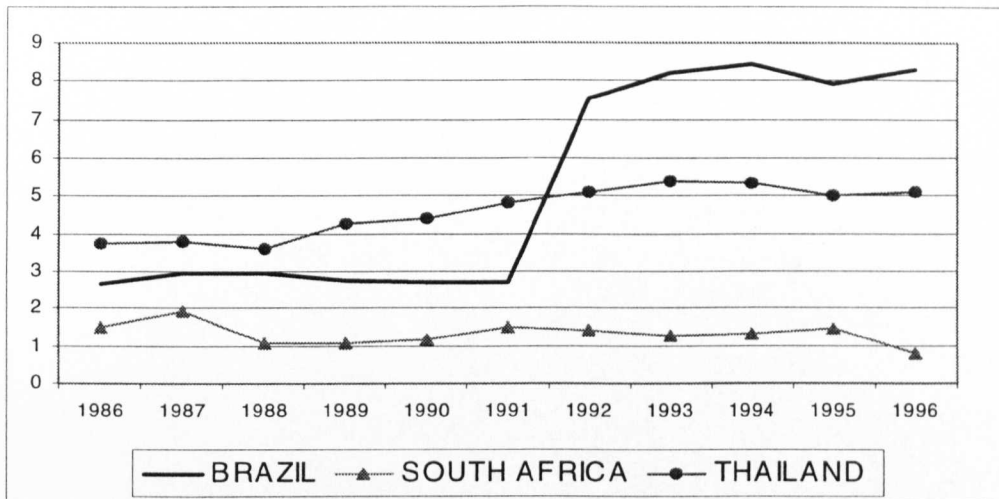
In both Brazil and Thailand, the high level of reserves provided support for their pegged currencies. However, reserves are costly to maintain, amounting essentially to a small open economy attracting foreign capital through high interest rates and then earning low interest rates from these inflows when they are deposited with the Treasuries of industrialised countries (Stiglitz, 1998:13). Hence the cost of reserves can be seen as the interest rate differential between the country and the international rate (Garcia & Barcinski, 1998: 345). In addition, in the case of Thailand in 1997 and in Brazil in 1998, it appears that no level of reserves can be seen as adequate in the face of a sudden reversal of capital (Palma, 1999:22).

However, the high cost of maintaining reserves, is less likely to be the reason for South Africa's low level of reserves throughout this period, than an incapacity to increase them. The requirement to repay foreign debt in the context of financial sanctions meant that South Africa as a surplus on the trade account was generated, this resulted in capital outflows to service the debt. Reserves throughout this period remained below the equivalent of two month's imports, and did not increase even after sanctions were lifted.

Table 6.8 Short Term Debt as a percentage of Gross international reserves

Year	Brazil	South Africa	Thailand
1986	2.06		1.04
1987	2.32		0.70
1988	1.71		0.77
1989	2.34		0.61
1990	2.78		0.58
1991	3.15		0.68
1992	1.07		0.70
1993	0.97	0.29	0.89
1994	0.82	1.75	0.96
1995	0.60	1.75	1.11
1996	0.59	4.14	0.97

Source: International Financial Statistics, World Bank development Indicators
and South African Reserve Bank Quarterly Bulletin, WEFA Database

Read together with the data for short-term debt, the data on the level of gross international reserves gives a sense of the capacity of a country to withstand a short-term liquidity crisis (See Table 6.8). Countries with short-term debt exceeding reserves are far more likely to experience sudden large reversals of capital (Rodrik & Velasco, 1999:2).

South Africa's low level of reserves meant that in 1996, when South Africa's short term debt amounted to around US $ 9.7 billion (derived figures from IMF data); her reserves were only US $ 2.3 billion. Hence South Africa's short-term debt was four times its reserves in 1996. By comparison, in 1996, Thailand's short-term debt more or less matched her reserves, having marginally exceeded reserves in 1995. In Brazil, the short-term debt fell sharply from three times the size of reserves in 1991, to roughly equal to gross reserves in 1992. When financial flows increased further to over 4 per cent of GDP in 1995, short-term debt fell to around 60 per cent of gross reserves.

The figures for reserves and short-term debt suggest that, in the case of South Africa in particular, a sudden withdrawal of credit at the end of 1996 could well have been disastrous, should the South African authorities have had any notion of defending the currency. It also suggests that the level of reserves in itself provides partial information at best. At a level of 5 months' import cover, Thailand could be considered to be well provided for in terms of reserves, however, the level of short-term debt belies this. While

there are suggestions in the literature that market knowledge regarding a central bank's inability to defend a run on the currency may encourage one-way bets against the currency, the South African case suggests that this may not be considered sufficient cause to initiate a run.

6.5 Financial vulnerability and financial fragility

The discussion suggests that the conditions associated with financial vulnerability of the small open economy are potentially conducive to financial fragility. It appears that Thailand's access to international financial provision increased the fragility of its financial system, a fragility more likely to be tested because of its vulnerability. Its position on the spectrum of international financial provision explains its capacity to attract financial capital and the financial crisis which ensued from the episode of credit withdrawal.

As has been seen in chapter five, financial vulnerability, as captured by financial exposure, is only a state of constraint if it is so perceived by the international financial community. For example, although the UK may be seen as financially exposed to international financial markets because of its exposure to short term loans, it is not categorised as vulnerable. This has much to do with the UK's position on the spectrum of international provision, where it is seen as an exceptionally creditworthy country and hence is super-included. For countries in this position, exposure to financial capital markets is not cast in a negative light – quite the contrary. However, comparable levels of exposure for a small open economy imply a financial state of constraint, associated with inhibitory behaviour on the part of the country and negative evaluation of creditworthiness by the international financial community, resulting in the small open economy being shifted to the margins of financial provision. If the small open economy has been the recipient of international capital involving speculative capital inflows and private loans

from international banks, the potential fragility of the system is heightened by the threat of the withdrawal of international financial flows.

Hence the state of financial vulnerability can contribute to the financial fragility of the small open economy$_{lp.}$ As the discussion in chapter four has suggested, international liquidity preference for the assets of a small open economy is likely to be of the speculative kind. There is thus a strong incentive for creditors of a small open economy to 'beat the gun', so that, if a reversal of assessment of creditworthiness takes place, it may trigger a debt run. The consequences of a debt run by international creditors are seen to be far more serious than a run by domestic creditors (UNCTAD, 1998: 84). A withdrawal of loans by international banks can trigger a rush by unhedged debtor banks and domestic firms into foreign currency in order to cover their open positions. This drives down the value of the domestic currency and increases interest rates – making it more difficult for debtors to service their debt. Liquidations are likely, further pressuring firms as their debtors become insolvent and are unable to meet their payment commitments. Banks are likely to be affected both by borrowers becoming insolvent and through their securitised assets falling in value as interest rates rise (Chick, 1993:90). A process of debt deflation is set off. The Thai example appears to have followed this chain of events (see for example, Radelet and Stiglitz, 1998 and Nidhiprabha, 1999). Hence, the negative re-evaluation of the creditworthiness of a financially vulnerable country along the spectrum of financial provision may trigger financial crisis, which results from a financial fragility exacerbated by inflows of international capital. The financial crisis which results from the sudden reversal of a country's perceived risk and the associated increase in the liquidity preference of international banks impacts not only on international and domestic debtors, but also on domestic firms in many sectors, resulting in a decline in output and employment (UNCTAD, 1998:84).

During this process, residents are likely to exhibit a higher liquidity preference for centre assets – and flee domestic currency. Non-residents are likely to attempt to exit from the equity market of the small open economy. These actions contribute to the downward pressure on the exchange rate and on equity prices (ibid. 85). This last serves to add downward pressure on the creditworthiness of firms, as the fall in equity prices acts like an increase in interest rates, leading to increased perception of borrowing firms' risk, reduced availability of credit and a further worsening of their liquidity positions. Hence the outflow of capital from equities compounds the increased liquidity preference of the international banking community away from the assets of small open economies.

In terms of the spectrum of international financial provision, while the super-included countries (and international conglomerates based in those countries) may be affected by the financial crisis, their international position ensures that they will have first call on international financial resources. Hence they are unlikely to be affected for long. Vulnerable countries, however, and the firms within them, are likely to bear the consequences of the fall-out from the financial crisis. Countries that are financially excluded may not be affected by the financial crisis initially, but they are likely to be affected by the knock-on effects of the crisis. To the extent that excluded countries have trade links with the rest of the world, they may suffer from the effects of reduced export orders, for example.

6.6 Conclusion

This exploration of the financial vulnerability of the three countries began as an exercise in negative analogy – in the hope of enhancing our understanding of small open economies by considering different examples. The discussion revealed that different countries have different financial profiles and that their vulnerability may be manifest in different ways. Nonetheless, their exposure to financial flows, and hence their small openness, was confirmed.

While the particulars of each country's exposure may vary, financial exposure generates liabilities that need to be serviced, hence the greater the inflow the greater the vulnerability to credit withdrawal. While the maturity of flow influences financial vulnerability, all types of capital are potentially volatile and hence reversible.

The three countries are influenced by the vagaries of financial flows – and appear to be unable to exert much control when capital takes flight. Hence policies designed to attract capital flows may be ineffectual in maintaining them.

While the financial liberalisation of the countries and their growing integration with the world economy has enhanced their exposure and vulnerability, their exposure to capital flows has not waited on liberalisation (as seen in South Africa's experience between 1985-1993 and Brazil's experience prior to 1992).

The comparison of the three countries at the time of the Asian crisis reveals that all three countries were vulnerable, and indeed all three countries were affected in terms of reversal of capital flows, interest rate hikes and exchange rate fluctuations. However, as suggested by its high level of financial vulnerability, Thailand bore the brunt of the consequences of the capital reversals. While there were particular circumstances in Thailand (such as the fixed exchange rate and copious on-borrowing) which increased the fragility of the economy to an episode of credit withdrawal, the high levels of exposure to financial inflows over the decade prior to the crisis seem to be decisive in terms of its vulnerability. The discussion suggests that an episode of credit withdrawal is more likely to result in a financial crisis in a small open economy$_{lp,}$ not only because marginal access to international flows may encourage the conditions for financial fragility, but also because vulnerable countries are unlikely to have first call on international financial provision.

The speed with which South Africa acquired short-term liabilities has lead to its vulnerablity in terms of exposure to short-term debt relative to its reserves. While its

financial exposure is not as extreme as that of Thailand the short-term exposure remains cause for concern. Brazil's exposure to financial inflows from the mid-1990s has allowed it to build up substantial international reserves. Nonetheless, this is a costly means of protection of the currency and it could be said that neither its fixed peg nor the high level of reserves would be necessary were Brazil not a small open economy.

The discussion appears to provide support for the financial vulnerability index on two counts: First, the relative position of the three countries on the financial vulnerability index in chapter five appears to be confirmed, with Thailand most vulnerable, followed by South Africa and Brazil. Second, the use of a composite index with four variables appears to provide a more accurate evaluation of the countries' vulnerability than any of the single alternative variables explored here.

7. Financial constraints on economic activity and employment in South Africa

7.1 Introduction

The thesis began in an attempt to understand some of the monetary and financial constraints on South Africa contributing to its persistent high level of unemployment. The preceding chapters have identified ways in which monetary and financial factors can impact on the real economy by inducing insufficient effective demand and hence unemployment. While monetary and financial constraints are not the only obstacles to full employment, the preceding chapters have argued that they are significant.

The perspective offered here contrasts with that of the mainstream, which continues to promote the notion that monetary factors leave the real economy unaffected. The mainstream view rests on theory of the non-accelerating inflationary rate of unemployment (NAIRU), in which the economy is perceived to reach an equilibrium rate of unemployment that is associated with price stability (non accelerating rate of inflation). It is on this basis that the pursuit of price stability through monetary restriction is justified: money is neutral and will neither contribute to an increase nor decrease in employment (Carvalho, 1995-6:170). In this view, demand management is to be eschewed, as given that the equilibrium rate of unemployment has been attained, such action can only lead to inflation. Unemployment can hence only exist because spanners-in-the-works, such as inflexible wages, interfere with the market mechanism, or because of supply-side problems, such as an inadequately or inappropriately trained workforce. In this view, high levels of unemployment are attributed to rigidities in the labour market, rather than insufficient effective demand. For example, Nattrass and Seekings (2000, 4) on the South African labour market write:

'…countries have a choice: either they go the USA route and make their markets more flexible (thus maintaining jobs for the relatively unskilled at the cost of rising wage inequality); or go the 'European way' of promoting greater wage equality (through minimum wage floors, social insurance etc.), albeit at the cost of rising unskilled unemployment.'

The implication of such an approach is that labour market regulations become the culprit for widespread unemployment. The approach offered contrasts with this view. It is suggested that in a country like South Africa, where around one third of the working population are without jobs, the concept of NAIRU is difficult to accept. While issues like appropriate training and improvement of worker skills are important, exclusive emphasis on the supply characteristics of labour loses sight of the importance of insufficient effective demand in generating unemployment. Preference for liquid financial assets is a strong motivator that siphons off effective demand and contributes to unemployment. Cast in this light, the growing importance of global financial markets and increased pressure for liberalisation of capital markets makes the cry for more flexible wages for unskilled workers a side-show of the bigger picture.

The preceding chapters have shown that, at a macroeconomic level in a monetary economy with uncertainty, liquidity preference is a constraining tendency leading to unemployment, which is exacerbated in an open economy. The discussion has developed the model of the small open economy$_{lp}$, which presents a view of a small dependent economy, vulnerable to credit withdrawal. The discussion has focused on the liquidity preference of groups in the aggregate. In the process of production and investment, the liquidity preference of wealth owners, the business community and bankers contribute to the states of constraint of financial exclusion and financial vulnerability. In addition, the vulnerability of those on the margin may exacerbate the consequences of financial fragility. The model of the small open economy$_{lp}$ and the discussion of financial states of constraint are now applied to the South African economy.

The discussion begins with an overview of the South African economy linking bank lending to economic activity in Section 7.2. It is generally accepted that bank lending precedes expenditure. Lack of provision of finance can lead to investment and other economic activity being constrained. It is with these linkages between bank credit and economic activity in mind that financial provision within South Africa and from the international financial community is discussed in the rest of the chapter.

The model of the spectrum of financial provision is employed in sections three and four. In section three, financial exclusion and financial vulnerability within a small open economy$_{lp}$ are examined, by applying the concept of the spectrum of financial provision to South Africa. This will involve an overview of the banking sector as well as informal alternatives. South Africa's history has led to a well-developed enclave banking system, surrounded by widespread financial exclusion. The banking sector has begun to address this widespread exclusion, but extension of financial provision has not been without its problems. Provision of credit to the excluded cohort potentially increases the vulnerability of individuals to credit withdrawal as well as the vulnerability of the lenders involved.

South Africa's developed financial sector is often seen as a robust feature of the economy contributing to its relatively strong capacity to withstand shocks such as the Asian crisis. The discussion suggests that the widespread exclusion of petty entrepreneurs from the financial system contributes to continuing unemployment and poverty among South Africans. This is likely to lead to worsening of international assessment of the country's prospects. Hence financial exclusion within the country affects the assessment of creditworthiness of the country, and hence the financial vulnerability of the country.

In the fourth section, the financial exclusion of South Africa between 1985 and 1993 and the country's inclusion since 1994 will be considered, applying the spectrum of financial provision in an international context. The discussion examines ways in which

the outflows associated with the period of exclusion affected the economy. Since the 1994 democratic elections, South Africa may be seen as on the fringe of international financial provision. This means that, while the spreads and maturities of loans have improved in the country's favour, the country remains financially vulnerable and subject to global changes.

In the fifth section, the small open economy$_{lp}$ model is evaluated for the insights it provides. Its conclusions are compared with those of the South African Government's Growth, Employment and Redistribution strategy, which has been the framework for policy since 1996, as well as other criticisms of this strategy.

7.2 Linkages between the domestic financial sector and the real economy

Previous chapters have placed much emphasis on the extension of financial services and credit as significant in influencing investment and consumption expenditure, and hence employment. In this section, the link between credit extension and the rest of the South African economy is examined. It is later used as a link between the financial account and the domestic economy.

Bank lending by formal financial institutions to all sectors in the economy is shown in the Figure 7.1, as a percentage of GDP and as an annual growth figure from 1980 to 1998. Over this period, while credit extension grew at an average of 17.4 per cent, the annual rate of growth varied significantly. While the rate of credit extension increased during the early 1980s, the rate of growth slumped to just over 8 per cent in 1986 (from a growth of 18.6 per cent in 1984). Credit extension then expanded at a faster rate, peaking at 26.5 per cent in 1988. As a percentage of GDP, bank lending varied from 47.7 per cent in 1980 to 66.8 per cent in 1998. Bank lending remained at a steady proportion of GDP from 1988 to 1991, slumping in 1992 and 1993 before recovering in 1994. Since 1994, bank lending has increased as a proportion of GDP.

Figure 7.1 Bank lending to all sectors
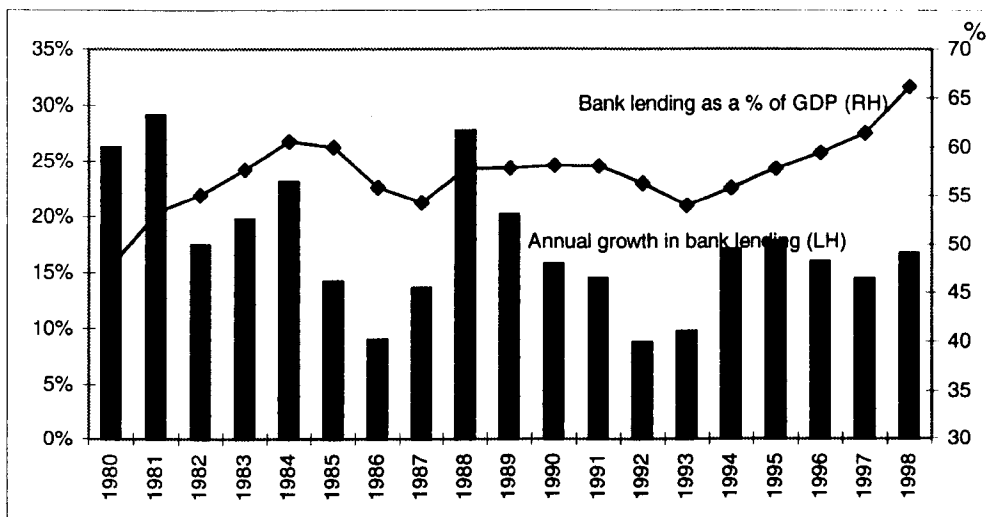
The slumps in credit growth in 1985/6 and 1992/3 were both associated with economic downturns, with GDP growth in these years either negative or negligible, as can be seen in Figure 7.2. The slumps in bank lending growth suggest higher liquidity preference on the part of banks, as associated with a downturn in the cycle and lower expectations. The credit extension data includes loans made to both the public and private sectors. In Figure 7.2, both the annual change in total bank lending and the growth in GDP are shown. The data for GDP are in 1995 constant prices. The data show the positive relationship between economic activity as measured by GDP growth and the rate of growth in bank lending, with the series moving together. This positive relationship is discussed further below.

Figure 7.2. shows the cyclical nature of bank lending. During the upward phases of the economy (as listed by the South African Reserve Bank), between January 1980 to August 1981, April 1983 to June 1984, April 1986 to February 1989 and June 1993 to November 1996, credit grew on average at 21 per cent per phase, as compared to 19 per cent, during the downturns in the economy. This reflects high bank liquidity preference during economic downturns.

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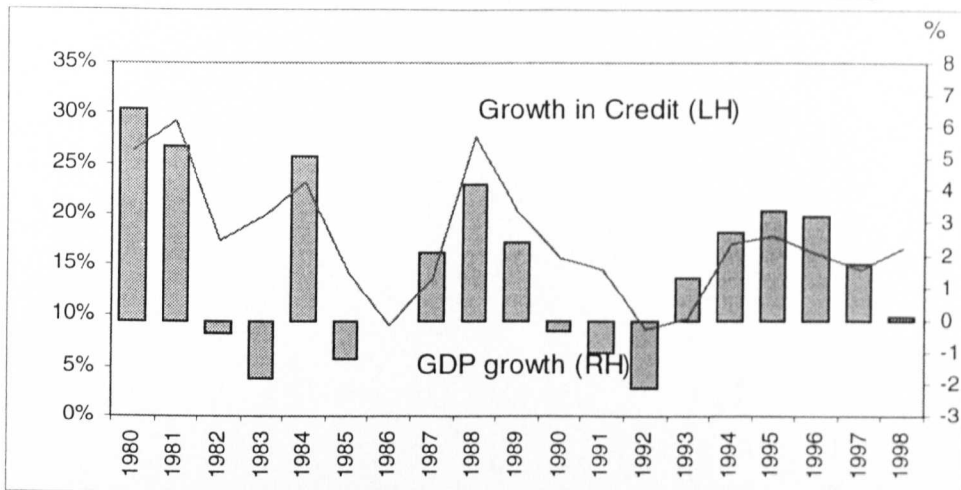
Changes in bank lending tend to precede changes in economic activity, with lending increasing ahead of an upturn in the business cycle and slowing down before the downturn in the cycle (van der Walt, 1997:1). As seen in chapter three, this may be seen to be the result both of the change in the liquidity preference on the part of businesses and households as well as on the part of the banks themselves. Since '(t)hose that supply financial resources live in the same expectational climate as those that demand them' Minsky (1982:121), at times of an economic upturn, banks are willing to extend a greater quantity of credit to a broader spectrum of borrowers, than when they expect an economic downturn.

A contributory factor to this lowering of the banks' liquidity preference is likely to be the likelihood of increased opportunities for funding in a booming economy. In figure 7.3 and 7.4, the extension of credit to the private sector of the economy is related to both consumption expenditure and investment expenditure.

Figure 7.3 suggests that, while there is not a one-to-one correspondence between an increase in credit extension and an increase in consumption expenditure by households, in general, they are positively related. Two peaks in the growth of bank lending stand out: in 1984 and 1988. The increase in bank lending in 1984 appears to be accounted for by a massive increase in government expenditure amounting to 25.7 per

cent between 1983 and 1984. The peak in bank lending in 1988 appears to be associated with an increase in investment expenditure of 30.6 per cent (Figure 7.4).

Figure 7.3 Annual growth in Consumption expenditure and Bank lending to the private sector
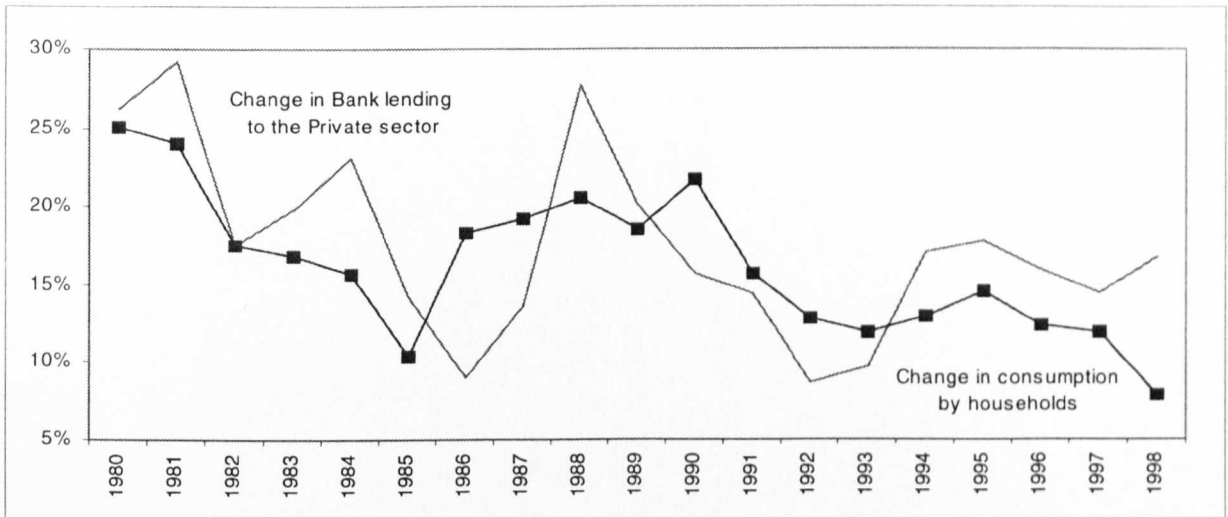
The positive relationship between investment expenditure and credit extension, shown in Figure 7.4, is more striking, with a rise or decline in investment expenditure associated with a similar change in bank lending to the private sector.

The bulk of bank lending to the private sector comprises mortgage loans and 'other loans and advances', which together make up just under 75 per cent of bank lending to the private sector. 'Other loans and advances' includes overdrafts, factoring and other loans and advances and is mainly used as working capital by businesses (van der Walt, 1997:7). Lending categorised as 'other loans and advances' made up on average 38 per cent of total bank lending during the period under review. It was the strong growth in 'other loans and other advances' in 1998, that was largely responsible for the increase in bank lending to the private sector, at the same time that both household and investment expenditure was decreasing (South African Reserve Bank, 1999:28). High turnover in securities markets and price volatility created opportunities for speculation that accounted for this increase in bank credit. In addition, the depreciation of the Rand towards the

second half of the year caused additional demand for credit from domestic sources as foreign trade financing was switched from offshore sources. Corporate restructuring also contributed to the high demand for bank credit under the 'other loans and advances' category (ibid.). This suggests that, while bank lending is associated with changes in the real economy, it can also reflect speculative and precautionary demand for liquidity.

Figure 7.4 Annual growth in Investment expenditure and Bank lending to the private sector
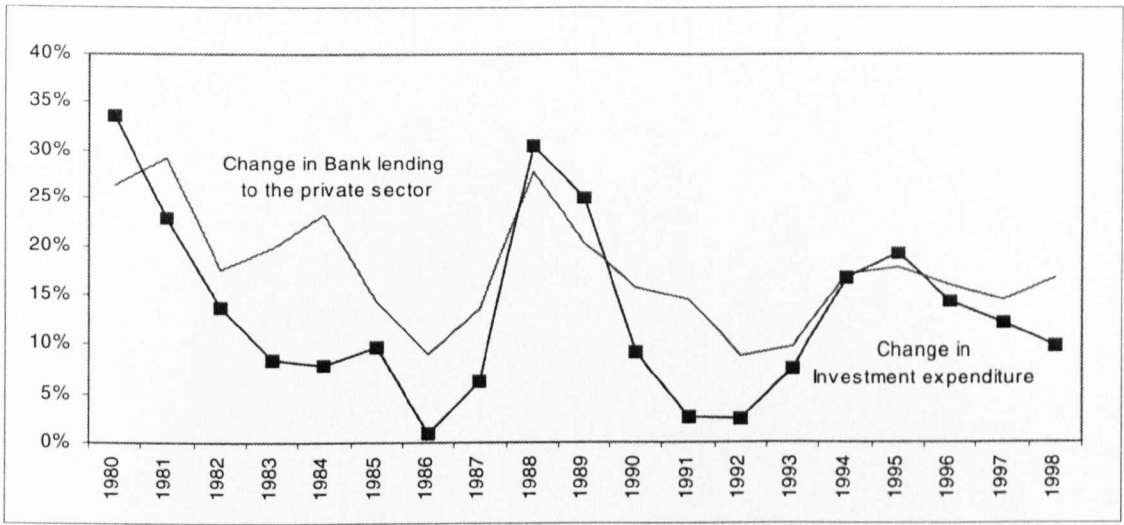
Finance generally precedes investment, but while bank lending may be necessary to enable the process of production, it is not all that is required to sustain it (Carvalho, 1992:150). In addition, as has been discussed in chapters two and three above, funding, or the process of transformation of short-term into long term liabilities, is necessary. This requires liquidity preference of wealth holders to be such that they choose to hold the relatively illiquid assets created by the investment. To the extent that wealth owners are unwilling to hold illiquid assets, both banks and the borrowing firms are vulnerable because of the nature of having short-term liabilities finance long term assets. The use by firms of retained earnings or profits to finance (and fund) their investment is perhaps an indicator of their reluctance to take this risky speculative position.

A recent survey of firms in South Africa has confirmed the importance of retained earnings to finance planned capital expenditure. The majority of the 1439 firms surveyed indicated that retained earnings or profits were in general the most significant source of finance, however bank finance was a significant second source (see Table 7.1). As Chick (1992:84) has pointed out, if investment is seen as deficit spending, while individual firms may finance investment from retained earnings, the entire business sector does not have this option.

Table 7.1 Sources of finance for investment expenditure

Source of finance for capital expenditure	Percentage of firms selecting each source	
	Primary source	Second source
Retained earnings	52	17
Sale of shares	3	4
Sale of bonds	0.1	0.1
Loans from SA banks	27	24
Loans from foreign banks	2	3
Loans from family	3	5
Leasing arrangements	5	14
Other	2	2

Source: South African National Enterprise Survey 1999-2000 (Unpublished results)
Department of Trade and Industry, South Africa

While the focus of the preceding chapters has been on monetary and financial aspects, in this section, which sketches the background of some macroeconomic linkages, it is perhaps appropriate to examine the macroeconomic linkages between investment and employment.

Figure 7.5 shows the positive relationship between employment and investment expenditure growth in South Africa, both reflected as annual change. As the rate of investment increases, so too does the rate of employment and *vice versa*. The apparent link between investment expenditure and employment is worth bearing in mind when the discussion shifts to the balance of payments and the influence of the financial account in section four.

Figure 7.5 Annual growth in Investment expenditure and Employment
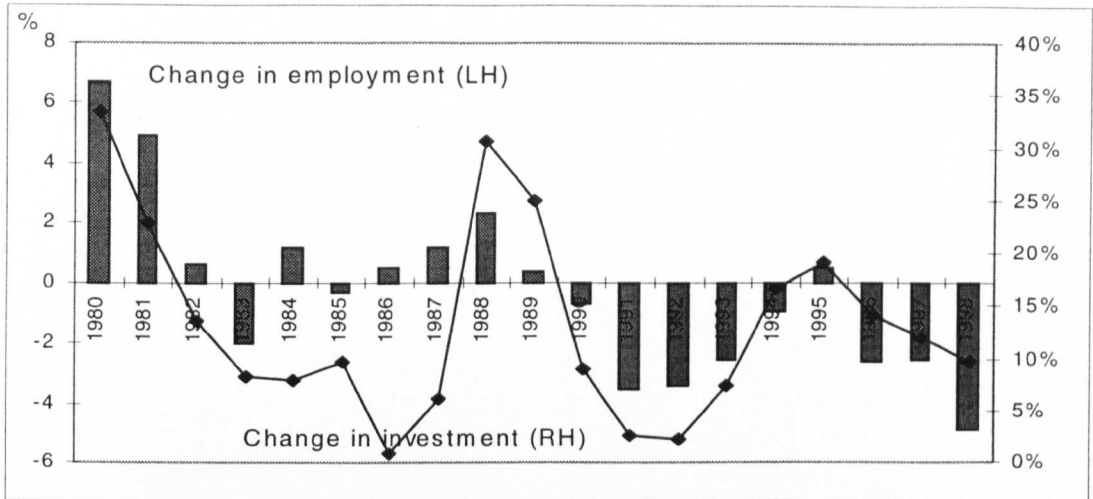
Given that there is a strong positive relationship between bank lending to the private sector and investment, this suggests that there may be a positive relationship between growth in registered employment and bank lending. Figure 7.6 shows that in the years in which the rate of bank lending accelerates, so too does the number of employed workers in the non-agricultural sectors. In the 1990's, when employment fell for eight of the nine years shown, the rate of bank lending fell for five of these years.

Figure 7.6 Annual growth in Employment and Bank lending to the private sector
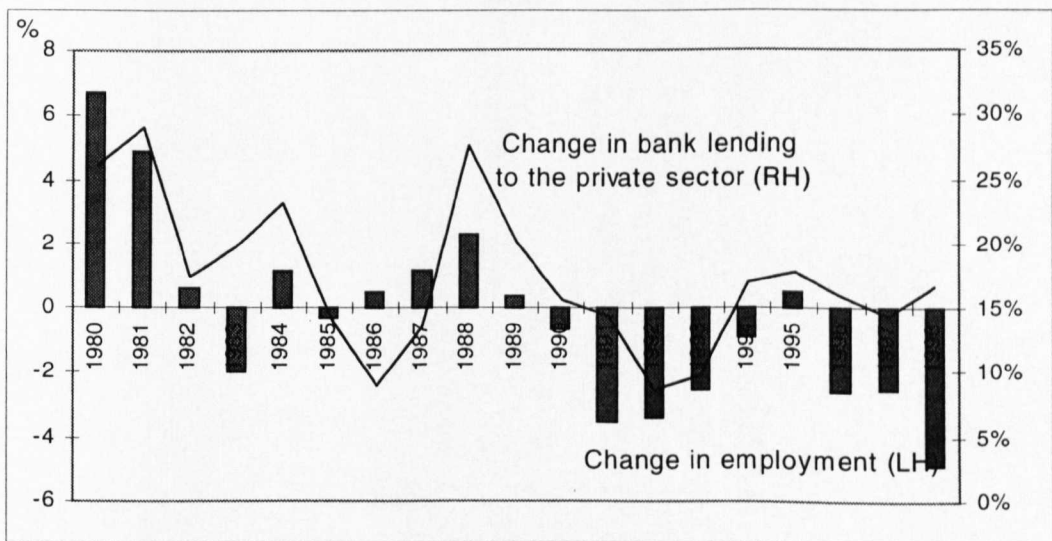
The discussion above has aimed merely to set the scene for the next two sections of the chapter, by emphasising some linkages between bank lending and economic

activity. Of course, the above analysis has not taken international developments and their impact on the South African economy into account. This will be addressed in section four.

Carvalho (1992:152) has pointed out that what is important to Post Keynesians is not the amount of saving, but its form and distribution. The above analysis has given some idea of the extent of bank lending, but not its form or distribution. It is this latter aspect is the focus of the next section. It is perhaps unrealistic to hope that an analysis of this sort will give a definitive indication of the extent to which the entrepreneur with the good idea is able to obtain finance (Kirzner's (1979) question raised in Chapter one) however the discussion below may be seen as suggestive.

7.3   The spectrum of financial provision within South Africa

The discussion below develops the concept of the spectrum of financial provision in South Africa, by examining both the formal and informal financial alternatives. The provision of financial services and credit to the fringe, in particular, is examined, with the focus on recent attempts by the commercial banks to extend services to this cohort. It is argued that, both for politically expedient and commercial reasons, the fringe has been re-defined to include some of those previously over-excluded. Thereafter the spectrum of financial provision is presented.

7.3.1   Financial exclusion within South Africa

South Africa's financial sector may be seen as a developed financial enclave surrounded by large areas of financial under-provision. The developed banking sector has largely served the needs of the sophisticated business sector and the well-off (predominantly white) individuals. While the four major banking groups have engaged in

various attempts at outreach to the greater population in recent years, a large pool of financially excluded individuals remains.

The South African commercial banking system is a first-world system, and it is subject to the same pressures affecting developed banking systems throughout the world. Since the opening of the economy in 1994, competition from international banks has increased, with foreign banks making up 5 per cent of the retail market share in 1998, compared to 1 per cent in 1994 (Banking Council, 1998a:6). However, this may under-represent the extent to which business is being shifted to foreign banks, with transactions such as corporate finance not reflected on the balance sheet (*Financial Mail*, 1998: 395). The greater competition from non-bank financial service providers and international banks has contributed to the greater potential for financial exclusion of those on the margins associated with the later stages of banking development. These were highlighted in chapter three and include standardised evaluations of marginal clients and branch closure.

The characteristics identified with stages five and six of the stages of banking development are present in the South African financial system. In particular, the banks have increasingly come to focus on transaction volumes to improve non-interest earnings, and, in order to reduce costs, banks have increasingly become automated. Twelve per cent of the 3820 national branches closed between 1994 and 1998, with a further 15 per cent expected to close by the end of 2000 (Tucker, 1999:11). The reduction in branches and personnel is likely to impact negatively on the provision of savings accounts, where people are far-off from bank branches; in addition, the tendency away from face-to-face contact between loan officers and clients is likely to impact negatively on the access of low-income earners and start-up businesses to loans.

The latter stages of banking development are often associated with mergers in the industry. South Africa's peculiar history has resulted in significant concentration in the

financial sector, with the four major commercial banks (ABSA, First National Bank, Nedcor and the Standard Bank group) absorbing 76 per cent of the industry share in 1998. In spite of this, Nedcor recently made an unsuccessful take-over bid for Standard Bank. The South Africa Competition Board rejected the bid on the grounds that it would not be in the consumer's interests.

The pressures of the later stages of banking development which lead to the banking sector providing a less personalised service are in conflict with the pressures of the new political dispensation to extend financial services beyond their well-heeled clientele. There is widespread agreement that a large sector of the South African population is financially excluded from banking services. A recent report from one of the four largest commercial banks (ABSA, 1998) suggests that only 20% of the country's economically active population of 16.5 million have an 'active banking relationship'. Data on the degree of service provision to different population groups or even different regions are not publicised, either by the four dominant banking groups or by the Reserve Bank, and so the extent of financial exclusion remains estimated. In South Africa, there is currently no legislative requirement regarding disclosure, and information regarding extension of credit etc., is regarded as competitive information and closely guarded. A recent submission to Parliament on bank charges by the Banking Council of South Africa (the industry board) illustrates this point. Although representing the industry, the Banking Council was not privy to the different bank charges, and an independent auditor had to collate and aggregate all information before it was submitted to the Banking Council (Coovadia, in interview, July 2000).

In the absence of data from official banking sources, the annual survey data published by the South African Advertising Research Foundation (SAARF) on the use of financial services and products, provide a sense of the degree of financial exclusion. This survey is based on a cross section of the adult (older than 16 years) population. Over the

past five years, the survey has involved a sample of between 14 600 and 29 300 respondents. Given the deficit of alternative sources, the survey is widely quoted by consultants to the financial sector and the media. The data for financial services are shown here by the SAARF Living Standard Measure classification, which is briefly summarised in Table 7.2. The Living Standard Measure classification is based primarily on monthly income.

Table 7.2 South African adult population by Life Style Measure

Life Style Measure Group	Adult Population		Ave. Monthly Income in 1998	Proportion with a savings account
	Millions	Per cent	Rand	Per cent
TOTAL	*25.7*	*100*		
LSM1	2.1	8.1	670	2
LSM2	2.5	9.9	700	10
LSM3	3.0	11.7	852	16
LSM4	3.6	14.0	1033	24
LSM5	3.8	14.8	1491	32
LSM6	3.7	14.4	2328	57
LSM7	3.6	14.0	5071	71
LSM8	3.4	13.2	9274	78

Source: South African Advertising Research Foundation. All Media and Products Survey

The data show that access to financial services –indicated here as access to a savings account – improves with higher income. The data show there is widespread and comprehensive financial exclusion of the lower living standard measure groups, with over half of the population, as represented by LSM groups 1-5 (some 58% of the population), having very little exposure or access to formal banking. In LSM group 1, access to any formal banking service is unlikely, although some people in this group may belong to *stokvels,* or community savings association, which are in widespread use, apparently as a consequence of financial exclusion. *Stokvels* and other such alternatives are discussed later in this section. Only for the LSM groups 6-8, do over half of the respondents have savings accounts, and only for the LSM 8 group that over half of the respondents have access to chequing accounts.

The data in Table 7.3 show the holding of savings accounts by different Life Style Measurement groups, over a five-year period. Savings accounts are generally thought of as the entry-level product to banking services. Nonetheless, the very poorest adults are completely excluded from holding even these accounts. The poorest adults are likely to be formally unemployed, and may be involved in subsistence agriculture. Although it would perhaps be unwise to draw any strong conclusions regarding changes between years, the decline in numbers of savings accounts held by LSM groups 2, 3, 5 and 6 in 1999, coincides with recent increases in bank transactions charges and branch closures (see below). The average figure for each LSM grouping provides a sense of the degree of exclusion from even entry level financial accounts.

Table 7.3 Saving accounts by Life Style Measurement Groups

Per cent of each LSM group with a savings account					
Life Style Measure Group	1995	1996	1997	1998	1999	Average holding of savings account
LSM 1	0	0	0	0	0	0.00
LSM 2	13.80	12.28	9.23	9.30	7.87	10.50
LSM 3	16.93	16.99	11.60	15.96	9.30	14.16
LSM 4	28.73	25.09	20.62	22.44	23.46	24.07
LSM 5	38.17	31.34	28.56	33.08	30.18	32.27
LSM 6	59.23	56.21	57.50	59.09	51.97	56.80
LSM 7	72.91	72.88	70.56	70.62	70.19	71.43
LSM 8	78.90	79.07	76.10	76.77	76.94	77.55

Source: South African Advertising Research Foundation. All Media and Products Survey

In Table 7.4, the average exclusion for the whole range of banking products surveyed is given. The five-year average for all LSM groups is shown. ATM card use appears to have increased since 1995, but use of other services has remained largely unchanged. The reasonably stable access to financial products over this period is probably accounted for by some banks claiming thousands of new customers per month (as a consequence of new ventures to attract low income customers, discussed below), while others reported large numbers of clients closing their accounts following increases in administration and transaction fees (Banking Council, 1998a). On average, over the

five years, less than 40 per cent of the population has had access to savings accounts. More than half of those with savings accounts have ATM cards. Access to cheque accounts appears to be restricted to less than 10 per cent of the population, almost all in the LSM 7 and 8 groups.

Table 7.4 Financial exclusion by financial product

Per cent of population with access to financial services					
All LSM Groups	ATM Card	Cheque a/c	Credit card	Loan	Savings a/c
1995	22.8	9.1	5.3	3.2	38.2
1996	24.9	9.5	5.5	3.2	37.7
1997	25.6	9.4	5.3	2.4	35.8
1998	25.5	9.0	5.1	3.0	38.5
1999	31.7	8.9	5.2	3.0	37.0
Average level of provision	26.1	9.2	5.3	2.9	37.4
Average level of exclusion	73.9	90.8	94.7	97.1	62.6

Source: South African Advertising Research Foundation. All Media and Products Survey

The data presented above suggest that the formal banking sector does not adequately provide for the financial needs of the majority of the South African population. It might be argued, however, that, while the data above give us some sense of the level of services, we cannot assume that this level is supply-constrained. But there is good reason to suggest that there is indeed widespread exclusion and unmet demand for financial services and credit extension. Two issues lead in defence of this position. Firstly, there appears to be widespread use of the informal financial services available to the excluded. Secondly, it appears to be a characteristic of marginalised borrowers that they display a high degree of insensitivity to interest rates (Yaron, 1994:34). In the South African case, there is evidence that the need for liquidity by the overexcluded overrides price considerations.

Most of the alternatives available to the excluded are informal savings and loan schemes. Until recently, a banking licence has been required to take deposits, although lending has not been similarly regulated. The recent amendment of the Usury Act has allowed exemptions to the law regarding deposit taking where organisations can show the

'common bond' principle (Banking Council, 2000:10). In this case, a banking licence is not required to take deposits. Among those exempt are the community savings and credit groups, known as *stokvels*. *Stokvels* and micro-credit practitioners are discussed below as alternatives available to the financially excluded.

A *stokvel* is the colloquial term for community savings groups or rotating credit and savings associations (ROCSAs), and are a traditional mechanism by which a group of people save for some specified event or celebration. The average profile of a *stokvel* is a group of 8-10 women who pledge their mutual support to attaining some financial objective (Collair, 1992). Such groups tend to exist for a year at a time, with difficulties experienced in keeping groups together beyond this time. *Stokvels* are seen to provide speedy, accessible financial assistance in emergencies. Banks have gradually provided some back-up to these community savings groups by opening group accounts, which are common, particularly in the urban centres. For this reason, indirect access to savings accounts may be slightly higher than Table 7.4 suggests. While *stokvels* are seen as 'the first step on the ladder to more formalised services' (Banking Council, 2000: 10), formalised alternatives are likely only to be accessible when members have become formally employed. There is no suggestion of formal banking institutions using regular membership of an informal scheme such as a *stokvel* to evaluate individual creditworthiness of borrowers.

The sources of credit to which the financially excluded have recourse are likely to be more expensive and are largely unregulated (Kempson & Whyley, 1999:2). These sources of credit are generally referred to as micro-lenders that provide small loans for a range of needs, and do not traditionally take deposits. The absence of legislative barriers to entry for the loan market has contributed to the mushrooming of micro-lenders of various stripes in recent years. In 1997, an estimated 30 000 small and micro-lenders were active in South Africa (ABSA, 1998:18).

There appear to be three requirements for success in the low-income market, low overheads, a close relationship with clients and rapid follow-up in the event of default. Micro-lenders with local knowledge can potentially succeed where the anonymity of modern banking may not. Forays into the low-income market by formal banks have generally been difficult, unprofitable and largely unsuccessful (Yaron, 1994: 32). This suggests that the lending technology of formal banks may be inappropriate when extended to the previously excluded.

An exemption in the Usury Act of 1992 provides for the possibility of micro-lenders in South Africa to become formally organised and registered. Formal micro-lenders are registered with the Micro Finance Regulatory Council (MFRC), and as a consequence, will be exempt from the Usury Act, allowing greater freedom to charge higher interest rates (although the capacity of the state to ensure that those practitioners that do not register only charge an interest rate of up to 33% p.a. is somewhat unrealistic). Those practitioners registered with the MFRC may charge up to a cap of ten times the prime interest rate (Roussos, 1999:22). Since its inception in 1999, some 5 380 micro-lenders have registered with the MFRC (MFRC, 2000). Table 7.5 shows the range of interest rates charged by formal and informal institutions. The rate for informal lenders is an industry estimate (*Mail & Guardian*, 1999).

Table 7.5 Interest rate charges of formal and informal lenders

As at January 2000	Interest rate charges
Commercial banks: Prime interest rate	15% p.a.
Commercial banks: Rates on installment sale agreements	16.5% p.a.
Registered Micro-lender (e.g. Nubank)	up to 150% p.a.
Unregistered Micro-lender	> 150% p.a.

Source: South African Reserve Bank Quarterly Bulletin, Nubank, MFRC

The widespread use of micro-lending services, in spite of the high charges by both registered and unregistered micro-lenders, suggests a high degree of demand unmet by the formal banking sector.

Both the formal and informal micro-lenders use a host of mechanisms to ensure repayment, and local knowledge and threat of coercion are not unheard of. Formal micro-lenders tend to restrict their clientele to the formally employed, using payroll deduction facilities to ensure repayment.

While micro-loans are generally thought of as consumption credit, micro-finance may be the only way for entrepreneurs to obtain seed capital for their business. Those who lack fixed security or collateral are relegated to the over-excluded cohort. Elsewhere, this has raised the issue of the need for greater flexibility in terms of accepting movable property as collateral (Fleisig, 1996:45). For example, in Kansas, there is widespread acceptance of 'cattle paper', compared to the legal and institutional restrictions on accepting cattle as collateral in Uruguay. Since those on the margin may be in possession of movable rather than fixed property, the removal of legal impediments to classification of mobile security as collateral could improve access to financial provision.

There has been considerable recent enthusiasm for micro-finance based on group lending schemes, where the requirement for individual collateral is replaced by group liability (see Morduch, 1999 and Graham, 1998). The most successful group lending schemes have become world-wide models, having achieved growth and outreach goals, although not necessarily having achieved self-sustainability (Yaron, 1994: 33). The screening of borrowers on the basis of Grameen Bank's three C's of credit: character (management of past debt obligations), capacity (the extent of debt that can be comfortably managed), and capital (the assets that can be used to repay debt if income ceases) are employed in South Africa by, among others, the Small Enterprise Foundation (Banking Council, 2000: 14).

The most significant requirement for successful group lending appears to be a tight grip on default generated by borrower solidarity. The formation of the social capital associated with peer monitoring implies the need for intensive personal interaction, involving time commitment by lender and borrowers alike. This suggests high operating costs for the lender and time costs for borrowers. The formation of social capital is not costless, especially as the size of groups increase. It has been suggested that in areas where there is high mobility of people and generally low social cohesion, long term commitment to groups may not be feasible or desirable. In addition, peer selection may be difficult. Ghatak (2000, 603-4) suggests that peer selection can be seen as an alternative screening mechanism to collateral in joint liability lending schemes. The requirement of group formation may be a barrier to even this form of credit in these circumstances. In addition, peer pressure may create social tensions (Graham, 1998:7 and Reinke, 1996). Individually-based schemes may be more suitable for circumstances in South Africa's townships, for example (Banking Council, 2000: 11, Reinke, 1998).

Individual schemes are, however, likely to encounter the problems associated with lack of collateral. One South African micro-finance institution, Upstart, has flouted accepted wisdom on micro-credit in its uncollaterised, impersonal and self-monitored micro-finance programme. The package offered by this organisation requires a four week training programme and upon completion of what is known as a 'Township MBA', the opening of a bank account with ATM access, which facilitates disbursement of the loans. The effective cost of the package which includes interest on the loan, life insurance, annual performance bonuses and accumulated saving to which loanees have access when exiting from the scheme, amounts to 105 per cent of the net loan per annum (Reinke, 1998:21). All loans are dispersed automatically by means of electronic banking and also repaid via this impersonal mechanism. Once the first loan of R500 is repaid, a larger loan

is automatically dispersed. The largest loan is currently R12 000. There is no further intervention by the institution, and minimal staff levels keep costs low.

Although defaults have been volatile, and sometimes large, the Upstart scheme covers all operating costs from interest received from borrowers alone and its own indemnity scheme covers the defaults (ibid. 23). The self-selection process seems to be reasonably successful, with the large majority of defaults occurring at the first loan stage. Over half of the recipients have been successful in expanding their businesses and even offer non-family employment in some cases. Interviews with recipients suggest that it is not ability that determines repayment, but dependence on self-employment and hence the need for access to further loans (ibid. 25). The least successful borrowers report that they found alternative or supplementary forms of employment.

The success of the Upstart scheme, which aims to provide a mass-production approach to non-securitised finance, is to keep costs low through the exploitation of a highly developed and widespread electronic banking infrastructure. This infrastructure is the spin-off of the enclave development of formal banking in South Africa, and its use in this micro-finance scheme holds the promise of extending the benefits of the centre to those on the margins of society. This scheme requires a level of self-selection on the part of the entrepreneur rather than the micro-loan organisation or bank. From the perspective of financial exclusion this is a potentially liberating scheme, as it forgoes some of the inherent evaluations of creditworthiness by loan officials. This relegates micro-enterprises to using informal credit provision. As Table 7.5 suggests, the high charges of informal credit provision are likely to disadvantage start-up businesses obliged to use these services.

The exclusion of low-income groups is a complex issue, and involves not only banking practice, but also attitudes of borrowers. The over-excluded cohort lacks exposure to financial institutions and may fear the bureaucracy involved. As seen in

chapter three, these are issues that arise even in mature economies such as the US and the UK (Kempson and Whyley, 1998). In the South African context, illiteracy is also likely to contribute to financial exclusion. In addition, the identification of the financial sector with white hegemony may contribute to lack of trust in the banking sector and contribute to what is perceived as an 'alienating and unsympathetic' environment (*Business Day*, 2000).

7.3.2 *The response of the banking sector in South Africa*

Recent attempts by formal banks to provide credit to the over-excluded can be seen as both politically expedient and potentially economically rewarding. With estimates that the micro-lending industry provides between R5,7 billion – R15,5 billion in advances per year (*Mail and Guardian*, 1999), the micro-finance market is potentially lucrative. At its largest, this represents close to 3 per cent of the extension of credit to the private sector in South Africa (R533 billion in 1999) and 6 per cent of the extension of credit to households (R262 billion in 1999) by the formal monetary sector (South African Reserve Bank Quarterly Bulletin, June 2000).

The response of the commercial banks to political and economic incentives may be seen as a strategic decision to provide for those previously excluded. In order to effect this strategic decision, new affiliates have been established to meet the needs of this newly identified market; new methodologies and technologies have been employed; and new initiatives to exploit the advantages of micro-credit and community based schemes have been devised. Seen in the context of the spectrum of financial provision, it has resulted in the reclassification of the over-excluded as marginal or fringe borrowers.

The background to this reclassification process is the democratic elections in 1994, which created the environment for a re-examination of those on the fringe, at the same time that economic advancement of blacks became a political and economic

imperative. Each of the four major banks has, over the past five to ten years, launched a new affiliate, aiming their marketing at lower income groups. Standard Bank, for example, launched E Bank, which aims at providing a simplified set of saving and transmission products to low-income clients using modified ATM technology. It is this technology which won E Bank a Smithsonian award for innovation in 1997. E Bank has attracted some 1.4 million clients since the mid-1990's (Paulson and McAndrews, 1998:21).

While E Bank has focused on payment and saving facilities, ABSA has launched Nubank, which provides small loans to the formally employed. Nubank is a registered micro-credit provider, utilising payroll deduction methods with employers playing an intermediary role. The relatively small loans (the largest single loan of R12 000) are predominantly consumer loans for consumer durables, but may also include loans for education expenditure and home improvements.

Crucial to the re-classification of the potential client base in South Africa, has been the development of new methodologies by which to categorise clients. South Africa's history of denying the vast majority of the population ownership rights has meant that financial provision based on fixed collateral has automatically led to financial exclusion of this majority. It is only since the formal banking sector has shifted its creditworthiness criterion to formal employment, that some of the over-excluded have been re-categorised as marginal borrowers. The criterion of formal employment allows for repayment by means of payroll deductions. Pension funds, rather than fixed property, are used as collateral (Banking Council 2000: 13).

As has been suggested in chapter three, however, when banks make a strategic decision to include the previously excluded, they are likely to burn their fingers. In the case of Nubank, for example, even with formal employment facilitating repayment, default is still higher than desired (Mutshekwane, in interview 5 January 2000). Although

the maximum rate of interest allowed by the Exemption of the Usury Act (ten times the prime rate) is charged, Nubank's activities are still being evaluated for their profitability by its parent, ABSA. E Bank has taken a number of years to break even, and its pilot loans of R500 are still making a loss. Extension of mortgages to the previously excluded has also led to disappointment, with in excess of 50 000 properties in receivership (Tucker, 1999:13). While all assets may vary in value, the possibility that the value of pension funds is more variable than fixed collateral also raises the possibility of increased fragility of the banking sector as it continues to venture into this market.

The re-evaluation of the client base in terms of formal employment has meant that the most excluded group remains the unemployed. Banks acknowledge their refusal to open accounts for the unemployed (Banking Council of SA, 1998b). The high level of formal unemployment in South Africa, estimated at around 30 per cent of the economically active population, underlines the problem of basing financial provision on this criterion. A large cohort of financially excluded remain. This attitude to the unemployed and the traditional approach based on fixed collateral, suggest that a start-up business is likely to be denied access to financial services, particularly loans. Generally, the literature discriminates between small enterprises with an annual turnover of R150 000 to R20 million (roughly £15 000 - £ 2 million) and micro-enterprises with turnover of less than R150 000. Small enterprises are more likely to be part of the formal economy and potentially employment generating. They are also potentially part of the fringe of potentially eligible borrowers served by formal banking institutions. The micro-enterprises are more likely to be survivalists, and remain in informal trading and services. Worldwide, large banks are seen to have little incentive to serve small informal clients (Steel and Aryeetey, 1994:37). Generally, banks in South Africa do not see their role as serving this sector of the population. The lack of collateral or security is stressed as a particular problem in terms of loans to micro-enterprises.

'There is a huge difference between venture capital and loan capital and …it is not the role of banks to use public savings to provide venture capital for high risk micro-enterprises' (Banking Council, 1998b:5).

Hence unsecured loans are seen as venture capital and eschewed by the formal banks.

The lack of provision of financial services to the unemployed and start-up enterprises remains a thorny issue in the political arena. Criticism of the 'overly conservative' stance of the commercial banks in meeting the needs of the over-excluded has recently re-emerged (*Business Day*, 2000). The commercial banks have attempted to divert some of this criticism through involvement in projects and joint initiatives, which involve government support and other sponsorship. Among these is a dual initiative that provides loans and mentoring for start-up entrepreneurs. This recent joint venture involving the major banks provides micro-enterprise loans ranging from R5000 - R50000, once mentors have approved the loan (*Alliance Update*, 2000: 3).

7.3.3 The spectrum of financial provision in South Africa

Figure 7.7 attempts to illustrate aspects of the preceding discussion on financial provision in a particular small open economy, South Africa. The spectrum of financial provision stretches from the super-included, including wealthy individuals and corporate clients, to the over-excluded who are likely to be unemployed with no fixed collateral. Increasingly in South Africa, there has been competition for the super-included client base, as foreign banks have entered the market. The included are those who are in formal employment, and meet the fixed collateral requirements of the formal banking sector. The fringe encompasses those who are formally employed, but do not meet the fixed collateral requirements of banks or are from those sectors of the population not traditionally served by the formal banks.

Figure 7.7 The spectrum of financial provision in South Africa
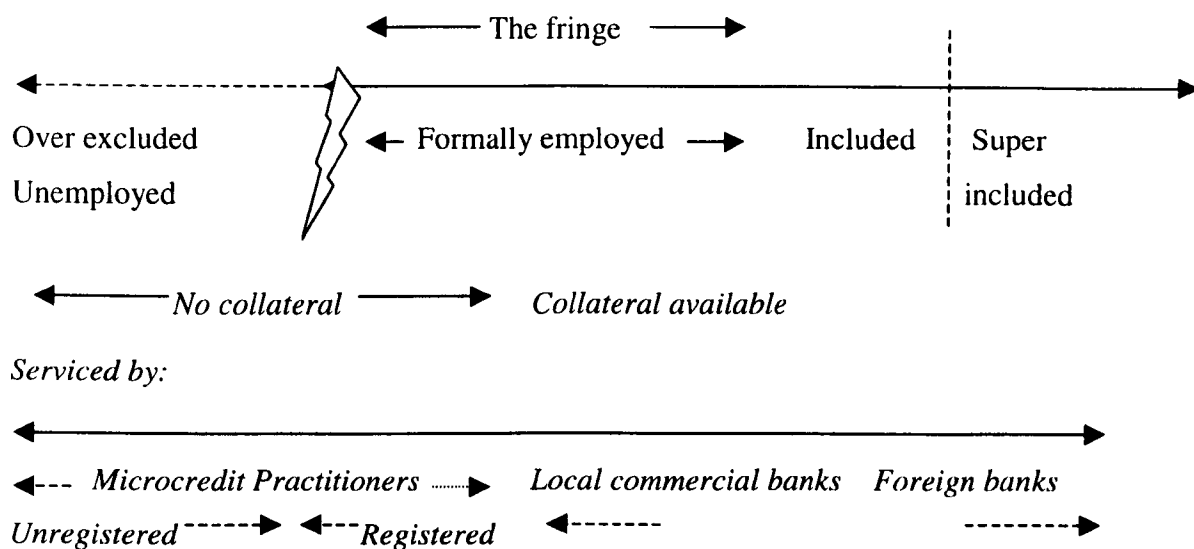
In South Africa, the fringe may be divided into two groups, those with some form of acceptable alternative to fixed collateral, like a pension fund, which can be ceded to the banks in the case of default, and those who are relative newcomers to the labour market, and have not established this form of collateral. In general, it is the former only that are being served by the formal banking sector; those without pension fund collateral are more likely to be served by micro-credit practitioners. Long-term employment appears to be used as screening device.

At the far end of the spectrum are those that are unemployed, and who are excluded from formal banking services. The liquidity needs of this cohort are likely to be met by the informal micro-lenders, who remain outside the auspices of the Usury Act and may employ questionable practices, such as seizing the borrower's ATM card to enforce repayments (*Mail and Guardian*, 1999).

While South Africa has a particular history which has led to large scale exclusion of the majority of the population from financial services, many countries face problems associated with exclusion of those at the margins of society, albeit on a smaller scale. The model serves to illustrate the process of blanket evaluation of borrowers based on

banking sector categories. A particular borrower may be excluded because of the bank's low evaluation of the borrower's category of risk, as well as the bank's liquidity preference. In the case of the over-excluded, the banks do not even choose to evaluate borrowers. Hence the spectrum of financial provision is not continuous (as indicated in Figure 7.7 by the dotted line). Given that information regarding the creditworthiness of clients is discontinuous, banks simply choose not to evaluate certain borrowers, as it is a costly process. The failure to address the needs of some sectors of the population can be seen as a pragmatic strategy by the banking sector, that nevertheless constrains the over excluded, and those on the fringe. In this way, financial exclusion contributes to the struggle for survival.

The above discussion suggests that financial states of constraint contribute to unemployment. This is not to suggest that access to unrestrained credit would solve South Africa's problems. Nonetheless, the discussion has highlighted the concern that access to finance at reasonable interest rates is a necessary, although not sufficient condition, for growth in employment. In the following section, the model of financial provision is extended to the international scene, where South Africa is seen as a borrower in the international context.

7.4   The international financial provision spectrum and South Africa

The balance of payments both reflects domestic and international developments and influences domestic economic determinants (Mohr et al, 1994:131). The different elements of the balance of payments are interrelated. However, given that the financial account is generally neglected in favour of the current account and given that the theme of the piece is on financial constraints, the emphasis here will be on the financial account and its relationship to domestic economic determinants.

As a small open economy$_{lp}$, South Africa may be seen as a country on the fringe of the spectrum of international financial provision. Unlike OECD countries, which may be seen to have first call on the resources of international finance, small economies may be seen to be included as and when the liquidity preference of international financial community deems them so. South Africa's recent experience with the international community has been marked by its reclassification from fringe to over-excluded (1985-1993) and back to fringe again, after 1994.

Figure 7.8 shows that, prior to 1985, South Africa could generally afford to run a current account deficit as the deficit was as least partially financed by inflows of capital. In the years preceding 1985, South Africa borrowed heavily abroad – its excellent debt record and the provision of forward cover at attractive rates by the government making it a sought out borrower (Mohr, et al, 1994:137). This contributed to a growing debt burden in the 1980's, which was exacerbated by the depreciation of the currency over this period. Given the significance of the mining industry and particularly gold mining in the economy, the exchange rate was manipulated, or allowed to depreciate, in order to keep the gold price in Rand terms more-or-less constant (Kahn, 1992: 82). Throughout the 1980s, gold and the mining sector remained the primary earners of foreign exchange in South Africa. Although the depreciation of the Rand during this period may have done much to support the mining industry, it had a detrimental effect on South Africa's debt burden. During the period 1980-1985, South Africa's foreign debt increased by about 50 per cent in dollar terms, but by 500 per cent in Rand terms (van der Walt and de Wet, 1993:3).

In July 1985, the international banking community, led by Chase Manhattan bank, refused to roll over South African debt, and demanded immediate repayment of all bank loans to SA borrowers (CREFSA, 1995: 6). Given the environment of the international debt crisis, and the high level of exposure of international banks to the default of LDC

debt, this move was perhaps not remarkable. Argentina, Brazil, Chile and Mexico had already been through a process of rescheduling debt. In the context of increasing international pressure for sanctions against the Apartheid State, this became a watershed moment, which marked the refusal of international banks to take on South African risk, and the beginning in earnest of the financial sanctions against South Africa.

South Africa's relationship with the international financial community had long been affected by political developments, with capital outflows having been previously sparked by civil unrest in the 1960's and by the Sharpville massacre, to name two. The refusal to rollover debt may be seen as a continuation of this fraught relationship, with American banks, in particular, motivated by increasing pressure for sanctions against the South African State. While South Africa's debt had grown from $3,7 billion to $23,7 billion between 1970 and 1985, its debt to export ratio of 170% was significantly lower than for Latin American countries similarly affected (Argentina's debt to export ratio was 335% at the time of rescheduling and Brazil's was 298%). The South African debt servicing ratio of 104% was also lower than that for Argentina (215%), Chile (153%), Brazil (133%) and Mexico (162%) (Holden, 1989:26). Hence it may be argued that while South Africa was a potential candidate for financial exclusion, political considerations also played a role.

Acceding to the American banks' demands threatened the normal repayments of loans from British and German banks and other international banks requested a debt standstill. In August 1985, the South African government declared a debt moratorium. During this period both the foreign exchange and stock markets closed (Holden, 1989:22). The moratorium was followed by subsequent repayment agreements involving the international banking community. Only trade credits were excluded from the subsequent ban imposed on loans to South Africa (Padayachee, 1991:102). In the light of greatly reduced access to foreign loans, loans and interest payments on debt had to be

financed out of a current account surplus. Figure 7.8 shows that in 1985, the balance on the financial account swung into deficit, amounting to 5 per cent of GDP, although it is estimated that capital outflows amounted to 8 per cent of GDP in 1985 (Kusi, 1993:255).

Figure 7.8 South Africa's balance of payments as a per cent of GDP
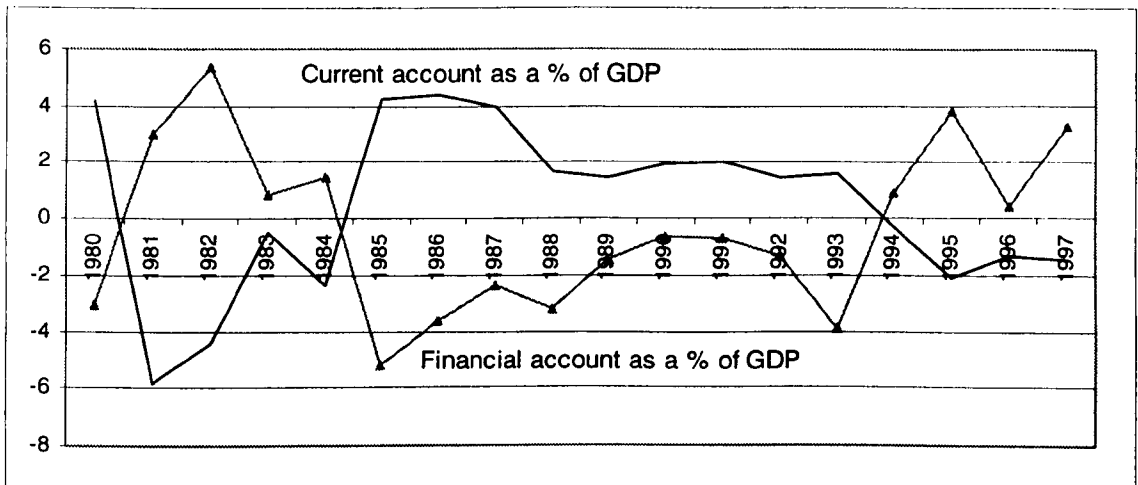
Source: South African Reserve Bank Quarterly Bulletin, WEFA Explorer Time Series Database

With some parallels to the 'unilateral transfer problem' facing Germany after the First World War, South Africa's capacity to generate a current account surplus between 1985-1993 was also hampered by a hostile environment for its exports (Goedhuys, 1994:162). The action of the international financial community generated a 'controlled experiment' where South Africa was essentially excluded from access to foreign loans, while at the same time it had to repay the debts accumulated prior to 1985. While the barrier erected between South Africa and the international community was essentially political and legal, rather than economic, the outcome of financial exclusion was economically detrimental (to be discussed below).

The balance on the financial account remained in deficit until the first quarter of 1994, when capital inflows associated with the first democratic elections in April 1994 were experienced. Again, the financial community proved sensitive to political developments in South Africa. During 1994, the surplus on the capital account amounted to 1 per cent of GDP, for the first time since 1984. In 1995, the inflow of capital

continued to grow, amounting to almost 4 per cent of GDP. This is generally interpreted as the international financial community expressing its support for the new democracy in South Africa. However, this honeymoon period was soon over, with capital outflows increasing and the balance on the financial account amounted to only 0.4 per cent of GDP in 1996, partly a result of outward investment from South Africa. This outflow reflected pent-up desire of domestic firms who had been affected by capital controls to spread their wings elsewhere.

In 1997, perhaps in response to the disappointment of international investors in the wake of the Asian crisis, the portfolio inflows increased by a large order of magnitude, from R12 billion in 1996 to R50 billion in 1997 (South African Reserve Bank Quarterly Bulletin, June 2000). While this size of inflow was maintained in 1998, it was accompanied by large outflows and heavy speculative attacks on the Rand (ibid:28). This was attributed to continued investor uncertainty in the wake of the emerging market crisis. In 1999, capital inflows resumed, as emerging markets were re-evaluated, and those whose fundamentals were judged sound generally became recipients of foreign capital once more.

Extending the model of the financial provision spectrum presented in chapter three to the liquidity preference of the international financial community, South Africa's experience during the 1984-1993 period can be described as over excluded. Once the legal-political barrier between South Africa and the international community was removed after the advent of the democratic elections, South Africa once again became a 'fringe' country. This suggests that its current account deficit may at least partially be financed by a capital inflow, but that at times capital outflows are a manifestation of the constraining tendency of liquidity preference in a small open economy. As a speculative or emerging market, South Africa will be evaluated by the criteria of other similarly defined countries, and may at times bear the brunt of contagion, as in 1998.

The liquidity preference of the international investor has been examined in terms of the transactions, speculative and precautionary motives for the demand for money in chapter four. Of particular interest here are the speculative and precautionary motives. Investors are likely to judge assets of a small open economy$_{lp}$ as relatively illiquid, and are likely to hold these assets only when they perceive the possibility for speculative gain.

When liquidity preference for an international currency (such as the dollar) is low, then the assets of the small open economy$_{lp}$ may be evaluated as creditworthy, at least in the sense of being redeemable. Political uncertainty appears to be a crucial factor in the evaluation of creditworthiness, not only for FDI flows, but also portfolio and speculative flows. Hence an increase in political uncertainty is likely to disrupt any speculative gains, and precautionary motives may result in high liquidity preference for centre assets. The depreciation of the currency throughout the over excluded years, seen in Figure 7.9, reflects the lack of demand for South African assets.

Figure 7.9 Change in the effective exchange rate and the financial account of the balance of payments as a percentage of GDP
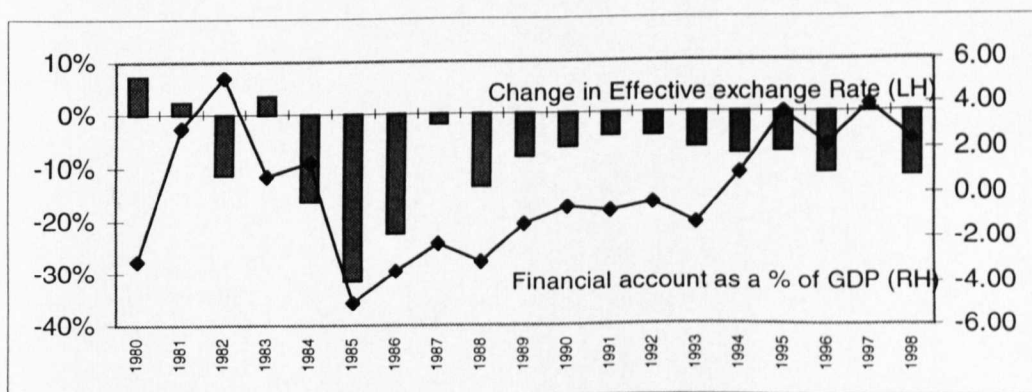
Source: South African Reserve Bank Quarterly Bulletin, WEFA Explorer Time Series Database

The implications of credit withdrawal by the international financial community for the small open economy$_{lp}$ are starkly illustrated by the experience of South Africa during the over excluded years. This is illustrated in Figure 7.10, where the impact of the deficit on the financial account is related to investment expenditure.

Throughout what may be called the 'over-excluded' years (1985-1993), investment expenditure as a ratio of GDP declined. Investment peaked as a ratio of GDP at 27,5 per cent in 1981 and 1982, associated with the upturn in the business cycle. Since then investment expenditure has declined as a ratio to GDP, falling to 14.7 per cent by 1993. As the financial account of the balance of payments moved into surplus in 1994, investment expenditure began to recover, reaching 16.5 per cent of GDP by 1998.

The links between the financial account and investment expenditure may be explored along three lines. Firstly, there is the issue of the real financial constraint associated with earning foreign exchange in a country dependent on imported capital goods. In South Africa's case, as for many small open economies, capital and intermediate goods make up the bulk of merchandise imports. Between the years 1980-1992, capital and intermediate goods made up over 80 per cent of imports (Hawkins, 1996: 206). If a small open economy is unable to generate sufficient foreign exchange in order to import necessary investment goods, investment decisions may be constrained.

Figure 7.10 Investment expenditure and the financial account expressed as a percentage of GDP
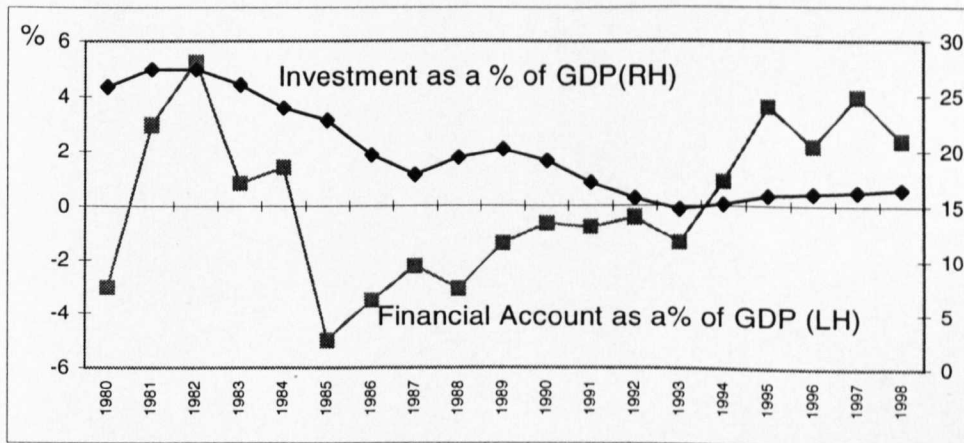
Source: South African Reserve Bank Quarterly Bulletin, WEFA Explorer Time Series Database

During the period 1985-1993, when South Africa had to generate a surplus on the trade account to ensure the ability to service debt repayments as well as enable the

outflows on the financial account, it was investment expenditure more than any other item on the national accounts that contracted (ibid.).

Hence, although a deficit on the financial account may be interpreted more positively under other circumstances, (a current account surplus is generally associated with an unconstrained economy), in the case of South Africa during the over-excluded years, it represented an unrelenting constraint on investment, growth and employment.

The second link between the financial account of the balance of payments and investment expenditure is through its effect on investor confidence. The sanctions against South Africa cannot be said to have left the animal spirits intact. Indeed, it has been suggested that there was little need for some of the monetary actions taken to ensure the surplus on the current account after 1985. In order to generate the surplus on the balance on the current account, a range of measures were employed. Kusi (1993:256) summarises these as follows:

- The dual exchange rate system was reinstated in an effort to protect foreign exchange reserves.

- Increased surcharges on imports were imposed in an effort to encourage the current account surplus. The depreciation of the currency under pressure of continuous capital outflow also contributed to export growth and reduction in imports.

- Increasing tax revenue encouraged expenditure absorption, so that by 1989, tax revenue amounted to 28 per cent of GDP, compared to 18 per cent of GDP in 1980.

- Interest rate policies were used to further dampen expenditure as and when the current account surplus was threatened.

While all these policies can be said to have been detrimental to investment demand, there is a view that suggests that during this decade, uncertainty was so great as to dampen investment demand anyway (Mohr, et al 1994:136). This is borne out by Figure 7.11, which shows that interest rates (represented here by the Bank rate) fell in the

mid-1980s in an effort to stimulate domestic demand after significant external shocks. During the late 1980s and early 1990's, as the financial account remained in deficit, interest rates were raised to ensure a trade surplus in order to facilitate capital outflows. Since the re-instatement of South Africa's 'fringe' position on the spectrum of international provision, the bank rate has risen, partially in a protective capacity against speculative capital outflows.

Figure 7.11 South African Bank rate
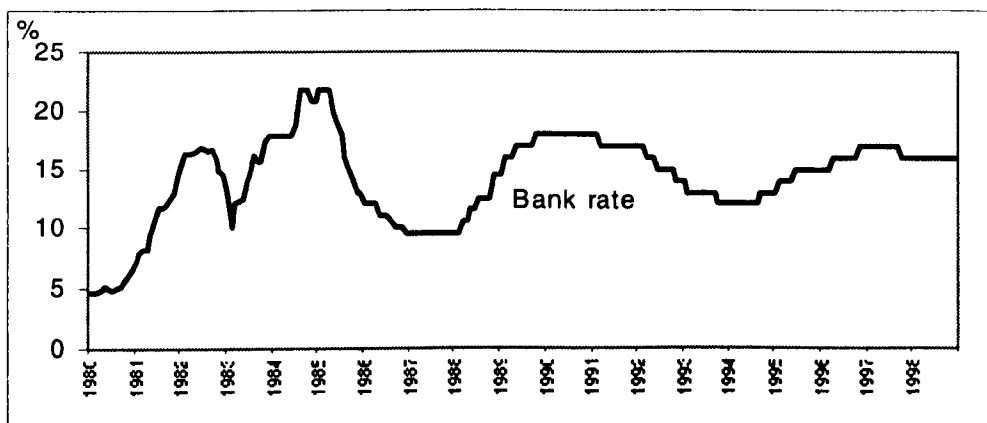
Source: South African Reserve Bank Quarterly Bulletin, WEFA Explorer Time Series Database

The foreign sector plays a considerable role in the South African economy. The severing of these links through an aggressive disinvestment campaign took its toll. During this period, substantial capital flight took place (see Chapter six), despite capital controls. From the perspective of liquidity preference, the unwillingness of investors to invest within South Africa, and their poor perception of the liquidity of South African assets, was not exclusive to the international community. During this period, there was considerable increase in official and unofficial emigration of the more mobile sections of the population, and those voting with their feet included the more entrepreneurial, motivated and educated members of the population (Jenkins, 1990:284-5). All these factors served to encourage a negative outlook, which contributed to the downward trend in investment expenditure in South Africa.

In the second half of 1994, after the successful democratic elections, the financial account turned positive for the first time since 1985. Investment expenditure increased from the second quarter of 1994, signalling improved confidence. While investment expenditure has not increased dramatically in the subsequent four years, the downward trend in investment appears to have been reversed, while the financial account has remained in surplus.

Figure 7.12 The financial account and credit extension as a percentage of GDP
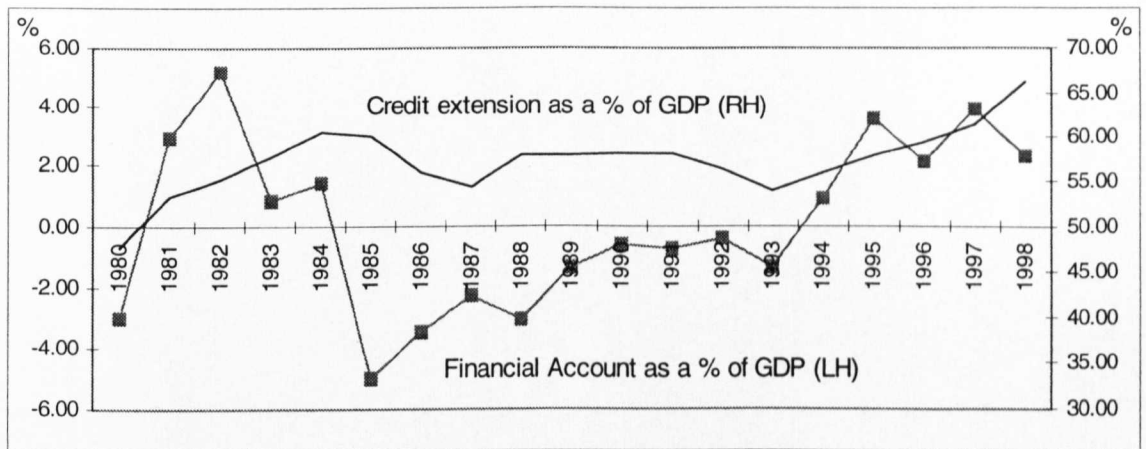
Source: South African Reserve Bank Quarterly Bulletin, WEFA Explorer Time Series Database

The third link between the financial account and investment is the link to bank lending. According to the monetarist tradition, in a fixed exchange rate regime, a current account deficit is seen to result in excess demand for foreign exchange. Payments for the supply of foreign exchange are made to the central bank, which reduces the volume of domestic currency deposits in the banking system, and the stock of money (Partington, 1989: 197). Hence a current account deficit is seen to have a contractionary effect on the money supply. Similarly, a current account surplus is seen as having an expansionary effect on the money supply. This analysis of the impact of the balance of payments on the money supply resulted in the IMF calling for a monitoring of Domestic Credit Expansion (DCE), a measure of change of the money supply, which aimed at separating out domestic pressures on the money supply from external ones. While the DCE variable

is no longer monitored, it falls into the monetarist tradition that emphasises the importance of high-powered money in constraining bank lending. Since the approach adopted here is the Stages of Banking approach, in which credit extension is largely independent of reserves, this approach is discounted here. Nonetheless, the slow down in bank lending as a ratio to GDP after 1985, can be seen as a result of the large capital outflows inducing a higher liquidity preference, and hence a reluctance to lend, among bankers. Bank lending remained at an almost constant rate between 1988 and 1992, before dipping to 54 per cent of GDP in 1993. This reflects the low level of economic activity during the over excluded years. It is only after the inflow of capital recommenced in 1994, that liquidity preference fell and bank lending increased, continuing to rise since then.

The re-admittance into the provision of the international financial community has been marked by the gradual lengthening of maturities and reduction in the spreads associated with loans to South Africa. This suggests that international banks distribute liquidity, with maturities and interest rates varying with the standing of the firm or country (Niehans & Hewson, 1976: 17). As has been mentioned above, export credits to South Africa were not affected by the debt standstill. These credits were supported by guarantees from foreign governments, such as the UK, and hence from the perspective of the international bank carried minimal South African exposure (CREFSA, 1995:7). In the 1990s, following the release of Nelson Mandela in 1989, short-term trade finance became more readily available to South Africa, in maturities of three to six months, with lucrative margins to international banks. However, the lack of demand for this short term credit from the depressed South African economy gradually encouraged the lengthening of maturities and narrowing of margins, so that, by the end of 1994, maturities of one-year were becoming more common (ibid.). With international factors driving the syndicated loans market, access to syndicated loans also improved, so that, by March 1995, the first

loan with a maturity of more than one year was launched by ESKOM, South Africa's electricity provider. The significance of the one year threshold is that BIS adequacy requirements stipulate that loans to non-OECD countries that have a maturity of less than one year carry a 20 per cent risk weighting, while those with a maturity of more than a year, carry a 100 per cent risk weighting. In terms of capital adequacy ratio requirements, international banks are required to retain capital equivalent to eight per cent of their weighted assets. Medium term loans to South Africa carry greater risk weighting and imply greater required capital. The availability of these loans indicates greater willingness on the part of the international banking community to take on South African risk (CREFSA, 1995: 8).

7.5 South Africa as a small open economy$_{lp}$

Throughout the above discussion, the model of the small open economy$_{lp}$ has been applied to South Africa. The small open economy$_{lp}$ model, which may be seen as Post Keynesian, stresses the interrelatedness of monetary and real factors. This flies in the face of the monetarist view of the small economy, where the supply of money has a neutral effect on output and employment. The small open economy$_{lp}$ model embraces the view of an income adjustment process affected by constraining tendencies, rather than the endowment constraint approach of the mainstream.

In the small open economy$_{lp}$ model, imports are skewed towards capital and intermediate goods, which reflects the lack of economies of scale required to produce capital goods. This composition of imports creates a tendency towards a current account deficit; as the economy grows together with investment, so too do imports of capital and intermediate goods. The model stresses that there are consequences to exposure of the economy to the foreign sector. These consequences are reflected on the balance of payments, which may in turn influence economic outcomes. Since the small open

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economy$_{lp}$ is associated with both domestic and international liquidity preference, and in particular with speculative flows, of necessity, the financial account comes under scrutiny. The outcomes of the small open economy$_{lp}$ model are seen to be the result of the interplay of both real and monetary forces, within the domestic and international scene. Indeed, the notion of liquidity preference as a constraining tendency resulting from the existence of money in an uncertain world can only be explained in terms of this interplay between real and monetary forces.

It can be argued that, viewing the economy from the perspective of the interplay of real and monetary forces, and the significance of the financial account, provides greater insight into the processes in the economy. It provides a different perspective on the role of sanctions on South Africa, for example. It has become fashionable to argue that the sanctions against South Africa were incidental to the demise of the Aparthied State (see Levy, 1999 and Lowenberg and Kaempfer quoted in Saad–Filho, 2000 and Strydom, (1995: 560) who does not endorse the view). However, this conclusion is based almost exclusively on the impact of trade sanctions, and reflects conventional theory's assumption that this is where the action is. To the extent that the financial and investment embargo over this period is acknowledged, it is regarded as motivated by risk perception rather than political pressure (Levy, 1999:417). But this is surely to miss the point in terms of the interplay of forces. Whether the financial withdrawal was in hindsight justified on economic or political grounds, it culminated in a ban on loans. Credit withdrawal of the starkest kind followed and with it a surplus on the current account on the balance of payments, to which the economy had to adjust. It can certainly be argued that the decline in domestic investment which followed, and which was accompanied by a growing fiscal deficit and negative rates of growth, were contributory factors to the negotiated settlement leading to the first democratic elections. In terms of the perspective offered here, what is important was not the trade sanctions taken in isolation, but the

cumulative effects of the general isolationist policy, the financial sanctions, and the negative political and economic expectations. Exclusive focus on the trade account may give rise to misleading conclusions.

In the traditional Post Keynesian account a country with a persistent current account deficit is seen to suffer from the balance of payments constraint. In this way, countries with a surplus on the current account are assumed not to experience a balance of payments constraint (Arestis and Sawyer, 1998: 185). This speaks of the neglect of the financial account. The experience of South Africa from 1985-1993 belies the notion that a surplus on the current account cannot be a constrained position.

The small open economy$_{lp}$ model also suggests that changes in the global economy affect the domestic economy, not only to the extent that capital (say) flows in or out, but in terms of its relative position within the world economy. Once an economy is classified within a certain cohort, it is treated in a similar manner to other similarly classified economies. Hence the spectrum of financial provision applied across countries gives insight into contagion effects.

Having placed money, liquidity preference and the financial account back on stage, the small open economy$_{lp}$ framework provides a useful mechanism for exposing some of the problems with the South African government's macroeconomic strategy Growth, Employment and Redistribution (GEAR). The GEAR strategy, announced in July 1996, was a programme designed to revive economic growth (and employment). Set against the negative and low levels of growth experienced in the late 1980's and early 1990's, the programme's target growth of an average 4.2 per cent between 1996 and 2000 was considered a challenge. However, GEAR has failed to achieve growth even to half of its predicted levels, although its targets of fiscal austerity have been largely achieved. The aim here is not to provide a rigorous evaluation of the GEAR programme's failure to meet its targets (this has been done elsewhere, including Weeks, 1999). The discussion aims to

show that the programme's failure had much to do with its mainstream conception of that which constrains the economy, and its misplaced belief in the neutrality of money.

The mainstream view of scarcity of resources appears to guide the GEAR strategy, in particular, the bottleneck constraint, saving, is the implicit concern. The following comment is typical of the views expressed in the document (Department of Finance, GEAR: 16):

> 'The higher growth path depends in part on attracting foreign direct investment, but also requires a higher domestic saving effort.'

Three years on, comments from the South Africa Reserve Bank (1999:2) re-iterate this theme:

> 'At its current level, the saving ratio is even more insufficient for the development needs of the country than it was a few years ago. If such a low saving ratio persists it will constrain long-term economic growth, unless domestic resources are augmented by strong inflows of direct investment capital from abroad.'

Scarcity of saving appears to underpin the GEAR programme, with fiscal austerity and growth in saving highlighted as programme initiatives, as the following statement indicates (Department of Finance, GEAR: 5):

> 'In brief, government consumption expenditure should be cut back, private and public sector wage increases kept in check, tariff reform accelerated to compensate for the depreciation and domestic savings performance improved.'

In Appendix five of the GEAR document, the benefits of fiscal austerity are spelled out on the basis that government currently competes for scarce saving and hence the fall in fiscal expenditure will result in increased saving, reduced interest rates and increased private sector investment. This approach speaks of an implicit acceptance that supply is the constraining determinant of the economy and that, in particular, saving is a bottleneck constraint. The policy document appears to be firmly in the world of substitution rather than complementarity. The cycle of causality expected by the document following the

reduction in the fiscal deficit involves falling interest rates and greater investment expenditure. While the authors of the GEAR strategy acknowledge that this last would involve an increase in the level of imports of capital goods, however, the pressure that this could place on the current account of the balance of payments is assumed away with projections of greater inflows of foreign direct investment (Weeks, 1999:801).

While the GEAR document acknowledges the need for an economic climate conducive to investor confidence, the main route by which this is to be achieved is through fiscal austerity. This approach appears to neglect the liquidity preference of domestic investors who have long endured negative expectations of growth in the economy. In this context, crowding *in* of the private sector *following* investment by the government would be a more likely scenario (Gibson and van Seventer, 1996a: 526). In addition, the liquidity preference of international investors, whose stance towards small open economies$_{lp}$ may be described as expedient, is also ignored. Hence the gradual lowering of interest rates following fiscal austerity, and the increase in investment – both domestic and foreign - that this was intended to induce, has failed to eventuate. Instead, there has been a steady increase in interest rates since mid 1996 as the Reserve Bank has gone about its business of protecting the value of the currency, in an increasingly liberalised (and speculative) currency market, and within the context of the East Asian crisis. Both domestic and international investors have remained unconvinced by the benefits afforded by the reduction of the deficit to three per cent of GDP (from 8.5 per cent in 1993) and while the inflation rate has been reduced below 10 per cent, the economy has slumped back into the all too familiar state of stagnation.

The discussion suggests that, while the GEAR document raises the concerns of high unemployment, its conception of the economy as one with perfectly adjusting markets, neutral money and the saving ratio as the crucial bottleneck constraint, leads it to policy recommendations that are inappropriate for the small open economy$_{lp}$.

Harris and Michie (1998) have also recently raised the failure of GEAR to create new jobs. They focus on the constraints on policy creation, although their conception of constraints is different to that offered above. They raise the issue of external constraints, which they see as the forces of globalisation, and internal constraints, which they see as capacity (administrative and institutional) and supply constraints. Harris and Michie (1998:419) suggest that global markets are not interested in the details of job creation strategies but in broad indicators such as the current account deficit and fiscal deficit relative to some thresholds. They suggest that, while global financial markets may exert some pressure, this should not be overexaggerated as the dominant policy constraint. As for internal constraints, in their characterisation, bottleneck constraints and spanners-in-the-works face the South African economy and its policy makers.

Hence while they pitch their arguments in middle ground, displaying ambivalence both to calls for labour market flexibility and Keynesian crowding-in policies, the conception of constraints adopted by Harris and Michie (ibid. 422) is mainstream. They write:

> 'Indeed, one of the key aims of a public-investment-led strategy of development would not be just to create new goods, services and infrastructure that would not have been forthcoming from the private sector itself, but also to create the conditions, by tackling supply constraints, overcoming production bottlenecks and upgrading the productive infrastructure generally, by which the private sector will increase its level of activity, investment, output, and employment.'

Ultimately, then their policy conclusions appear to be quite conventional, presenting no new suggestions to the macroeconomic strategy, and focussing in on microeconomic constraints. While their solutions on a microeconomic level are no doubt worthy of implementation, their failure to examine the issue from a macroeconomic perspective can be attributed to an analysis bound in the mainstream conception of constraint.

The discussion above suggests that, in order to tackle some of the macroeconomic problems of an economy like South Africa, we need to move away from the dualist conception of supply or demand constraints, and examine the consequences of constraining tendencies. The states of constraint arising from constraining tendencies, may be evident, such as being denied access to credit, or perceived, such as fear of credit withdrawal. While the latter may not be directly experienced or be measurable, they have real consequences, in that they elicit 'constrained' behaviour. Hence when the private sector fails to invest domestically, at the same time that fiscal consumption and investment is declining in a small open economy, with a volatile history, this may be said to be the consequence of a perceived state of constraint, in this case a low state of confidence. This provides a different view to the more conventional approach suggested by Harris and Michie (ibid.426) that the existence of a high level of retained earnings implies there are no barriers to investment.

7.6 Conclusion

The chapter has employed the model of the spectrum of financial provision both within and without South Africa to examine the impact of financial constraints on economic activity and employment. As background to the discussion, the importance of bank lending to the real economy has been explored on an aggregate level. In general a positive relation between bank lending and household and investment expenditure is apparent. Where investment growth declines, so too does bank lending. While increases in bank lending are generally associated with the finance or transactions demand for money, increases in bank credit can also be associated with the speculative and precautionary motives. Nonetheless, since bank lending precedes these activities, inability to obtain liquidity when required is likely to constrain choices.

The application of the spectrum of financial provision within South Africa provides some insight as to which categories of the population are likely to be constrained by financial exclusion. The discussion suggests that, while the eligibility criteria have changed, the financial exclusion of the majority of South Africans continues to constrain their economic choices, and contributes to their struggle for survival.

The formal banks are seen to be caught between two pressures, the pressure for more standardised, less personalised service associated with the need to cut costs in the latter stages of banking development, and the pressure to extend financial services to the excluded which appears to demand more personalised attention for success. The response of the banking sector has been to utilise sophisticated technology to address the problem, rather than a more personalised approach. Crucially, the strategic decision to address widespread financial exclusion has involved an adjustment in the creditworthiness criteria and new methods of ensuring repayment. This has resulted in some of those previously excluded being re-categorised as on the fringe.

In spite of these changes in the formal banking sector, it is suggested that the continued move away from personalised service is likely to contribute to the small entrepreneur being unable to sell her good idea, and hence remaining out of the formal provision of financial services. The widespread use of the informal alternatives suggests, together with the comparatively high charges, that the need for liquidity outweighs the price considerations. Nonetheless, the cost and terms associated with these informal alternatives are likely to compound the difficulties of the start-up entrepreneur. Access to finance at reasonable interest rates remains a necessary condition for employment creation that has not yet been met.

The spectrum of financial provision may be seen to provide insight into the implications of the financial exposure of a small open economy[lp.] South Africa's experience over the past two decades seems to support the notion that it is indeed a small

open economy$_{lp}$ and hence on the fringe of international financial provision. The international community's refusal to roll over loans and the subsequent ban on all financial assistance, barring trade credits, can be seen as both a political and economic decision. During this period, investment, in particular, declined, contributing to increasing employment and low growth. The link between the deficit on the financial account and the decline in investment in GDP can be seen as reflecting financial vulnerability and exclusion. The acute result of credit withdrawal by the international financial community from a small open (financially vulnerable) economy, leads to the practical constraint of the balance of payments requiring a trade surplus. This has tended to reduce investment in South Africa, a country dependent on imported capital goods. The consequences of financial exclusion over a prolonged period may be seen to have eroded the liquidity of South African assets. This is likely to encourage speculative and precautionary behaviour on the part of domestic and international investors alike. The liquidity preference for centre assets has encouraged capital flight, but has also subdued domestic investment. These factors continue to re-inforce the financial vulnerability of the South African economy, and discourage investment expenditure, in spite of once again being on the fringe of the spectrum of international provision.

The application of the small open economy$_{lp}$ model to South Africa, with its emphasis on domestic and international liquidity preference and the concept of constraining tendencies that this embodies, appears to be a useful way to examine the problems of the economy. When compared with the GEAR programme, which implicitly adopts the mainstream conception of constraints, the model is suggestive of the reasons for the apparent failure of the policy programme.

8.   Themes and Conclusions

Three related themes can be identified within the thesis: constraints in economic theory, liquidity preference as a constraining tendency and the small open economy$_{lp}$. The thesis makes a conceptual contribution in each of these three areas by re-examining the sometimes intuitive associations with each category and providing new insights in the process. As part of this activity, the spectrum of financial provision is developed which provides insight into financial exclusion, financial vulnerability and financial fragility. The financial vulnerability index is also developed, which is an empirical rather than conceptual contribution.   The thesis also provides an analysis of the South African economy from a financial perspective, linking domestic and external financial constraints. This provides a new point of entry into the problems facing the South African economy. These themes and contributions are discussed in turn.

8.1   Theme one: Constraints in Economic Theory

The discussion of constraints binds the chapters, beginning with the first chapter. Constraints are deeply embedded in economic theory – but have been rarely explicitly examined from a theoretical perspective. In general, an intuitive sense of the function of constraints has been accepted and the matter has been left at that. It appears that an examination of constraints and the role they play within theories requires some understanding of the ontological background of the theory.

The discussion compares constraints in mainstream and Post Keynesian theory and examines the different ontologies of the schools, which in turn determine their methodologies and how they approach constraints. While constraints are associated with determinism in each of the schools, the constructs of the constraints are quite different. The closed system ontology of the mainstream model, which allows for deterministic

relationships, and is amenable to a formal method of theorising, uses constraints or endowments primarily to determine the opportunity set of the model. Once these have been defined, the model is solved, based on the assumptions of rational, maximising behavior, perfect information, and so on. Within mainstream models, this ensures a full employment equilibrium outcome, where all the beneficial exchanges have taken place. In this sense, endowments provide the limits to the system, within which the market mechanism operates, with prices operating as an allocation mechanism. Demand will meet supply and all resources will be fully allocated according to this mechanism. In this conception of constraints, supply of resources is the primary determinant of the system, and bottleneck constraints refer to the constraints on the growth in productive capacity because of an inadequacy of a particular resource.

However empirical reality seldom mimics the full employment outcome of these models, and spanners-in-the-works can be seen as devices to justify the axiomatic failure of mainstream theory. In this context, a constraint may be seen as an obstacle to the smooth operation of the market mechanism.

This approach is contrasted with that of the Post Keynesian school, where the reality of widespread unemployment (and inequitable income distribution) is taken as a starting point. Hence the underlying mechanism, the principle of effective demand, which describes the income adjustment process, accounts for unemployment. While full employment is not ruled out in this system, it is regarded as the exceptional case. The income adjustment process that underlies the Post Keynesian conception of a monetary production economy is influenced by constraining tendencies, such as liquidity preference, which is associated with a monetary economy where uncertainty is inherent. Together, the existence of money, which stems the fall of interest rates, and liquidity preference, a tendency which siphons off purchasing power, contribute to inadequate effective demand, and hence unemployment. While liquidity preference is by no means

the only constraining mechanism in a monetary production economy, it may be seen to be fundamental and its role is sometimes underplayed when the focus is on the real economy.

In Post Keynesian theory, then, there are constraining tendencies, which may be more or less apparent, depending on the circumstances. The tendency of liquidity preference, for example, is always present, however, in times of an economic upswing and relative confidence in future prospects; preference for liquid assets is lower than at times of increasing uncertainty and an economic downturn.

It is apparent that when the theoretical background to constraints is compared, the role performed by constraints and their application within different theories diverges. The endowment constraints and spanners-in-the-works of mainstream theory are not of the same species as the constraining tendencies of Post Keynesian theory. In addition, using constraints as a point of entry into the different schools allows insight into some of the distinctions between the theories.

Firstly, it is apparent there are translation issues. A constraint in one theory would not pass for one in the other. However, it might be argued that spanners-in-the-works, for example minimum wages, are part of empirical reality, and not only within the mind of a mainstream economist. These spanners-in-the-works are not constraints within the Post Keynesian perspective, indeed they might rather be termed facilitators. In an automatically (and instantaneously) adjusting environment, labour contracts bind agents, preventing them from halving their workers' wages one day, doubling them the next and laying off workers the day after. This 'contractual' interference in the workings of the market mechanism is interpreted as obstructive in mainstream theory. However in a non-deterministic, uncertain environment, these same contracts lend stability. Without these institutional responses to an uncertain environment, decisions to commit to long term (and illiquid) actions would be made virtually impossible. Hence a constraint in one theory

may be seen as a stabiliser in the other.

With constraints as point of entry, the distinction between the theories with regard to micro-macro reductionism, is highlighted. In mainstream theory, macro constraints may be seen to have micro foundations. Hence if there is a saving gap, this can be potentially filled by all agents in the model tightening their belts. The general lowering of consumption would release the limits of the saving constraint and more investment would become feasible. In the Post Keynesian view, if consumption were to fall, this would depress sales and expectations. In response, investment expenditure would fall rather than increase. Hence there is a fallacy of composition; the whole is more than the sum of the parts. In the Post Keynesian view, where there are constraining tendencies, rather than absolute limits to production, groups within the model act pursue their interests and in so doing affect the decisions of other cohorts. Hence the decisions of one cohort, and how they affect the expectations of others, influence the process of income adjustment. The tendencies of the Post Keynesian system attempt to capture the interplay between decisions, expectations, and real and monetary factors, however, these tendencies, while cumulative, are not simply additive and the outcome of the tendency cannot be reduced to its constituent parts. This view on constraints as the interplay of tendencies, speaks of the open systems ontology of Post Keynesian thought. It also requires a greater awareness of the interplay of forces when analysing economies, such as in chapter seven.

The states of financial exclusion and financial vulnerability, which dominate the discussion in the later chapters, are a case in point. Financial exclusion, financial vulnerability and financial fragility may be seen as manifestations of the operation of liquidity preference. Financial exclusion occurs when individuals, firms, regions and countries are denied access to credit. This occurs not so much because of a shortage of reserves, but because of the liquidity preference of banks, and the way in which they view the eligibility of clients. It is suggested here that the eligibility of clients depends on their

categorisation as reflected in a spectrum of financial provision, with two cohorts constrained by this categorisation: the over excluded and the fringe of marginal borrowers. The over-excluded are constrained, as based on the existing rules of eligibility; they are unlikely ever to be considered creditworthy. Although the fringe of unsatisfied borrowers are potentially eligible for financial inclusion, the liquidity preference of bankers may mean that their credit demands are denied. If they are included, borrowers on the fringe become financially vulnerable. A country may be said to be financially vulnerable when it is susceptible to credit withdrawal, so that income and employment will suffer. The withdrawal of credit may occur because of increasing indebtedness or because external events lead to a change in liquidity preference. As liquidity preference and standards of eligibility shift, previously creditworthy clients may become either ineligible or financially vulnerable. Financial fragility refers to the susceptibility of the financial system to crisis, which may be exacerbated by perceptions of financial vulnerability. Financial states of constraint are seen to be a function of both individual and social characteristics. This denies the usefulness of theory constructed on the basis of individual atomism.

This brings us to the realms of distinguishing between evident states of constraint, such as being denied access to credit, and perceived states of constraint - such as fear of credit withdrawal. Evident states of constraint may be directly experienced or be measurable. By contrast, perceived states of constraint are intangible, but may be as 'real', in that they elicit constrained behaviour. When a central bank of a small open economy, for example, maintains deposits that exceed its liabilities in international banks, in order to ensure a certain level of creditworthiness, this speaks of fear of the consequences of credit withdrawal in an uncertain world.

8.2 Theme two: Liquidity preference as a constraining tendency

The focus on liquidity preference emphasises the influence of the monetary aspects of the economy. This can be seen as an attempt to re-emphasise the importance of money in the economy. While the importance of money has always been maintained in Post Keynesian theory, there are accounts of the *General Theory*, which remain essentially accounts of the real economy. The discussion of the nature of money and the motives for holding liquid assets emphasises liquidity preference as an essential link between the conditionally endogenous money supply and the real economy. The discussion suggests that the 'horizontalist' approach of the money supply, which rejects liquidity preference, falls into a neoclassical conception of constraints and of money.

Liquidity preference refers to the tendency to hold assets in liquid form, particularly during periods of uncertainty. Liquidity preference is a tendency predicated on the existence of a monetary economy, with uncertainty. In this environment, the very existence of money puts a premature stop to the fall in the rate of interest. This affects investment decisions, as a falling rate of interest is necessary if investment is to continue where there is a falling marginal efficiency of capital. Liquidity preference for speculative and precautionary reasons reduces expenditure on the products of industry – and hence contributes to the insufficiency of effective demand associated with unemployment. In an open economy, where investment may be undertaken with a view to export expenditure, rather than domestic demand, the influence of liquidity preference on the interest rate is still pertinent, except that preference for centre assets has to be taken into consideration.

Liquidity preference also provides an explanation of why it was that Keynes thought that bankers play a key role in the economy. The theory of the liquidity preference of bankers is expounded by means of the spectrum of financial provision. It provides a useful device to account for how banks use rules of thumb to assess the creditworthiness of different cohorts of borrowers. The spectrum also allows insight and

distinction between the two states of constraint, financial exclusion and financial vulnerability. The spectrum of financial provision suggests that the assessment of creditworthiness is bound up with liquidity preference. Fringe borrowers are seen to be both less creditworthy and less liquid than the superincluded or included clients. In the case of small open economies, which are on the fringe of international financial provision, the country's assets are perceived to be less liquid than those of centre countries, and their risks of default are greater.

Seen from the perspective of both domestic and international investors, the spectrum of financial provision stresses the importance of financial account of the balance of payments in analysing a small open economy$_{lp}$. The preference of domestic and international investors for the relatively liquid assets of the centre can be said at times to be the dominant force on the income adjustment process.

One's position on the spectrum also determines the outcome of a crisis brought about due to financial fragility. The super included, with first call on financial resources, are likely to be least affected. By contrast, the financially vulnerable are most likely to be affected by the financial crisis and its impact on the real economy. While, by definition, the financially excluded will not be affected by the financial crisis, they are likely to be affected by the knock-on effects on the real economy, being vulnerable to a fall in output and employment.

8.3   Theme three: The small open economy

The small open economy$_{lp}$ model is developed as an antidote to the conventional conception of the small economy, which is underpinned by mainstream axioms and its concept of constraints. The small open economy$_{fe}$ provides an account of an economy where full employment is assured and the consequences of openness benign. In this environment, money is neutral – and cannot affect the level of output and employment.

This construct appears to be belied by the experience of economies that could possibly be recognised as small and open.

The small open economy$_{lp}$ model is based on the Post Keynesian concept of constraints as tendencies which may emerge strongly and at times, and less so at others, depending on the interplay of real and monetary forces. Seen in this light, the small open economy$_{lp}$ offers an analysis of an economy where the consequences of openness are considered throughout, rather than of a large economy with a foreign sector, which appears to be the more conventional route. In small open economy$_{lp}$ model, the interplay between monetary and real forces is crucial.

Since the openness, or exposure of the economy to the foreign sectors is paramount, and the interplay between real and monetary forces is emphasised, it is natural to focus on the financial account of the balance of payments, as well as the current account. The analysis of the financial account provides insight into international liquidity preference and how it tends to constrain the small open economy. The new emphasis on the financial account raises the issue of classifying economies according to their exposure to the foreign sector. This process leads to the development of the financial vulnerability index.

8.4 The financial vulnerability index

The development of the financial vulnerability index arose from the attempt to examine financial openness explicitly. The discussion suggests that while trade openness and financial openness may be complementary concepts, they appear to require different forms of measurement. The exclusive use of the trade intensity ratio to classify openness may result in the financial vulnerability of small economies being neglected. The financial vulnerability index measures financial exposure based on the financial rather than the current account.

The index, which ranks twenty-one countries, reveals that emerging countries are small open economies$_{lp}$ in terms of their financial exposure. These economies are financially vulnerable to the withdrawal of these flows. A comparison of the financial vulnerability index with sovereign credit ratings suggests that the index's approach to exposure, based on the composition of financial flows and their maturity structure, better captures the vulnerability of countries to financial crisis.

This is an area, which could be further developed and extended to more countries, but as a preliminary development, the results are suggestive.

8.5   Analysis of the South African economy

The analysis of South Africa proceeds by application of the spectrum of financial provision both within South Africa and within the global environment. The examination reveals the distinction between the financially excluded and financially vulnerable in South Africa. While the collateral criteria have changed from ownership of fixed assets to employment, widespread unemployment means that the pool of financial excluded remains vast. Among the causes of unemployment is the openness of the economy. As a small open economy$_{lp}$, South Africa remains on the fringe of international financial provision. This means that at times, movements on the financial account can dominate the income adjustment process and employment. The lack of cogniscence of the realities of being on the fringe of international financial provision, together with acceptance of the mainstream conception of constraints, have allowed the adoption of inappropriate policies in South Africa.

The policy recommendations of the GEAR programme (which is bound in the small open economy$_{fe}$ model) are weighed against the small open economy$_{lp}$ model. It is argued that the GEAR policy recommendations are grounded in a mainstream conception of the constraints of the economy, which appears to be inappropriate. In addition, these

recommendations are not sufficiently sensitive to the realities of a dependent economy. On this basis, the recommendations are seen to be inadequate, at best, but essentially destructive, in that they continue the malaise of the economy. Given this analysis, it is not surprising that GEAR has failed to induce the growth and employment promised. Criticism of GEAR is not unusual, but this approach affords a perspective that critiques not only specific targets, but the very conception of the economy it aims to stimulate.

8.6   Limitations of the analysis and implications for further research

A process of discovery, as this has been, is by its nature likely to be subject to further questioning and extension. There are several areas that lend themselves to further research, which implies that the research presented here has limitations.

The analysis presented in Chapter seven, on the South African economy, emphasises liquidity preference and financial states of constraint. It is acknowledged that while these are seen to be important, and relatively neglected, a full blown account of the South African economy would require the analysis presented here to be incorporated with the trade account and an institutional analysis of other sectors. This may culminate in a more formal expression of the small open economy$_{lp}$ model.

The spectrum of financial provision lends itself to be empirically examined by case study. This would be particularly useful in the South African context, where relatively little detail about lending behaviour has been documented.

Extending the analysis to more countries for which internationally comparable data is available could test the robustness of the financial vulnerability index.

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